

2015

Perceived harms and benefits of parental cannabis use, and parents' reports regarding harm-reduction strategies

Kathleen J. Donoghue
Edith Cowan University

Follow this and additional works at: <https://ro.ecu.edu.au/theses>



Part of the [Other Psychiatry and Psychology Commons](#), and the [Substance Abuse and Addiction Commons](#)

Recommended Citation

Donoghue, K. J. (2015). *Perceived harms and benefits of parental cannabis use, and parents' reports regarding harm-reduction strategies*. Edith Cowan University. Retrieved from <https://ro.ecu.edu.au/theses/1592>

This Thesis is posted at Research Online.
<https://ro.ecu.edu.au/theses/1592>

Edith Cowan University

Copyright Warning

You may print or download ONE copy of this document for the purpose of your own research or study.

The University does not authorize you to copy, communicate or otherwise make available electronically to any other person any copyright material contained on this site.

You are reminded of the following:

- Copyright owners are entitled to take legal action against persons who infringe their copyright.
- A reproduction of material that is protected by copyright may be a copyright infringement. Where the reproduction of such material is done without attribution of authorship, with false attribution of authorship or the authorship is treated in a derogatory manner, this may be a breach of the author's moral rights contained in Part IX of the Copyright Act 1968 (Cth).
- Courts have the power to impose a wide range of civil and criminal sanctions for infringement of copyright, infringement of moral rights and other offences under the Copyright Act 1968 (Cth). Higher penalties may apply, and higher damages may be awarded, for offences and infringements involving the conversion of material into digital or electronic form.

USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

Copyright © Kathleen J. Donoghue, 2015

All rights reserved

Perceived Harms and Benefits of Parental Cannabis Use, and Parents' Reports Regarding Harm-
Reduction Strategies.

A thesis submitted to the School of Psychology and Social Sciences at
Edith Cowan University
in partial fulfilment of the requirements for the degree of
Doctor of Philosophy

Submitted by
Kathleen J. Donoghue
February 2015

Declaration

I certify that this thesis does not, to the best of my knowledge and belief:

- I. incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution of higher education;
- II. contain any material previously published or written by another person except where due reference is made in the text of this thesis; or
- III. contain any defamatory material;

SIGNED

DATE 4th February 2015

Dedication

I would like to dedicate this to the courageous women I came to know through working with the Perth Women's Centre, whose lives were marred by violence and abuse, and who found some comfort and escape through their drug use. They all loved their children, even though they sometimes made choices and decisions that caused them to be separated from their children through imprisonment, child welfare interventions, and their own emotional unavailability.

It is also dedicated to my colleagues in the drug and alcohol field who were there to inspire me at the start of this long journey and who taught me so much about compassion and being supportive.

Finally, it is for those who work alongside me every day "at the pointy end of the stick" and who share my passion for child welfare and want to make a difference even knowing it might only be a little one.

Acknowledgments

I would like to thank my supervisor, Dr Greg Dear, for his positive feedback along the way, his patience at my slow part-time progress, and his enthusiasm for the topic, his encouragement, and his ability to keep bringing me back to focus on the unique contribution that my research makes to the current literature.

I would like to thank the wonderful women who were my colleagues on the PEPISU mums and kids program, especially Jo Dobson and Fiona Reid, whose compassion and imminently sensible approach to working with families affected by parental drug use inspired my own clinical practice and career direction.

I would also like to thank my colleagues at the Department for Child Protection; those in the Psychology Services team, as well as the teams of social workers and support staff that have become my friends as well as my colleagues throughout the years. Without the support and encouragement of these wonderful, warm and caring people I would not have managed to stay sane throughout my now six years as a child protection psychologist, while I was completing this PhD.

And last but not least thanks to my family and closest friends for putting up with my absence and unavailability while I was studying, especially my children. To Sian, I am proud to see you following your dreams at university, and to Jake, I am so proud of the success you have achieved through sheer hard work. Hopefully now that this body of work is completed, I will get to spend more time with the people that matter to me.

To my mum, for your endless love and support, I know you are always proud of all your children but I also know you will be really chuffed to tell everyone that your daughter is finally a Dr.

Abstract

This research focussed on families in which at least one parent was a long-term cannabis user; I explored family members' perceptions of the benefits and harms of cannabis use and the strategies parents used to minimise cannabis-related harm to themselves and their children. In depth, semi-structured interviews were undertaken with 43 individuals from 13 families, producing a series of family case studies that enabled examination of multiple perspectives within each family. In Study 1, I used an interpretive framework guided by Miles and Huberman's (1994) thematic content analysis technique to analyse interview data, while study 2 yielded detailed descriptive vignettes that examined how the use of cannabis played out in particular families. Cannabis users have been portrayed as stereotypically lazy, unhealthy, deviant, and criminal. However, this was not the case with the current sample, whose lifestyles revolved around employment and family life. Parents claimed to use cannabis in a responsible way that minimised harm to self and family. Few reported personal experiences of harm and most did not believe that their children had been adversely affected by their use of cannabis. Nonetheless, children's awareness of parental cannabis use, and access to the parent's cannabis supply, occurred at a younger age than parents suspected. Parents reported harm reduction strategies that targeted five broad areas: (1) Dosage control; (2) Dependency; (3) Acute risk; (4) Long-term harm; and (5) Harm to children. The current study points to common-sense ways of reducing harm, such as being discreet about cannabis use; using less potent strains; prioritising family and work responsibilities; being careful about where cannabis was obtained; not mixing cannabis with tobacco; and limiting any financial outlay. The harm reduction strategies identified in this research might be helpful in the forensic evaluation, safety planning, and treatment of parental cannabis use. The validity of the current findings was enhanced by having independent data on the same topic from each family member's point of view, including non-using partners and children, and by including both convergent and divergent data.

Keywords: cannabis; marijuana; parenting; harm reduction; parental substance use; intergenerational drug use; risk and protective factors; adolescent drug use; family case studies.

Table of Contents

| | |
|--|--------------|
| DECLARATION | III |
| DEDICATION | IV |
| ACKNOWLEDGMENTS | V |
| ABSTRACT..... | VI |
| TABLE OF CONTENTS | VII |
| LIST OF TABLES | XVIII |
| CHAPTER I - INTRODUCTION TO THE CURRENT RESEARCH | 1 |
| TERMINOLOGY | 1 |
| DRUG USE | 1 |
| CANNABIS | 3 |
| <i>Prevalence and trends.....</i> | 3 |
| <i>Legal status.....</i> | 5 |
| <i>Psychoactive effects.....</i> | 7 |
| <i>Harms.....</i> | 9 |
| <i>Cannabis dependence.....</i> | 12 |
| <i>Treatment seeking.....</i> | 14 |
| PURPOSE OF THE CURRENT RESEARCH | 16 |
| IMPORTANCE OF THE CURRENT RESEARCH..... | 16 |
| LIMITATIONS AND SCOPE OF THE CURRENT RESEARCH | 17 |
| CHAPTER II - REVIEW OF THE PARENTAL ILLEGAL DRUG USE LITERATURE | 19 |
| THE EFFECTS OF PRENATAL EXPOSURE TO ILLEGAL DRUGS..... | 19 |
| <i>Methodological considerations.....</i> | 20 |
| Confounding factors..... | 21 |
| Alcohol..... | 22 |
| Tobacco | 23 |
| <i>Types of illegal drugs.....</i> | 23 |
| Opioids..... | 24 |
| Neonatal Abstinence Syndrome..... | 24 |
| Developmental outcomes..... | 25 |
| Cocaine..... | 25 |
| Neonatal Abstinence Syndrome..... | 26 |
| Developmental outcomes..... | 26 |
| Amphetamine-type stimulants..... | 27 |
| Neonatal Abstinence Syndrome..... | 28 |
| Developmental outcomes..... | 28 |
| Cannabis..... | 29 |
| Neonatal Abstinence Syndrome..... | 30 |

| | |
|---|-----------|
| Developmental outcomes. | 30 |
| <i>Discussion and conclusions.</i> | 34 |
| THE EFFECTS OF ONGOING PARENTAL DRUG USE | 35 |
| <i>Confounding factors.</i> | 38 |
| Poverty. | 38 |
| Chaotic lifestyle. | 40 |
| Criminal involvement. | 40 |
| Child abuse and neglect. | 41 |
| Violence. | 43 |
| Mental illness/comorbidity. | 44 |
| Changes in primary caregiver. | 46 |
| Maternal youth, IQ, and education. | 46 |
| <i>Level of drug involvement.</i> | 47 |
| <i>Drug-specific risks.</i> | 48 |
| Heroin and methadone. | 49 |
| Cocaine. | 49 |
| Amphetamine-type stimulants. | 50 |
| Cannabis. | 51 |
| Crime and aggression. | 52 |
| Psychosis and schizophrenia. | 53 |
| Anxiety and depression. | 53 |
| Amotivational syndrome and educational outcomes. | 55 |
| <i>Parenting factors.</i> | 56 |
| Parent-child attachment and interactions. | 57 |
| Parenting attitudes, styles, and behaviours. | 58 |
| Social support and social development. | 60 |
| <i>Child outcomes.</i> | 61 |
| Language development. | 62 |
| Child behaviour and mental health. | 62 |
| Adolescent drug use. | 64 |
| <i>Protective factors.</i> | 69 |
| Individual resources. | 70 |
| Family strengths. | 71 |
| Community support. | 72 |
| <i>Discussion and Conclusions.</i> | 72 |
| CHAPTER III - RATIONALE FOR THE CURRENT RESEARCH | 75 |
| HARM REDUCTION | 75 |
| WHY CANNABIS? | 76 |
| A COMMUNITY SAMPLE. | 77 |

| | |
|--|------------|
| THE FAMILY PERSPECTIVE | 78 |
| THE CURRENT RESEARCH | 81 |
| CHAPTER IV - METHOD (STUDY 1)..... | 83 |
| RESEARCH AIMS..... | 83 |
| RESEARCHER ASSUMPTIONS | 83 |
| RESEARCH DESIGN..... | 84 |
| <i>Choice of qualitative paradigm.</i> | 84 |
| <i>Choice of method.</i> | 85 |
| ETHICAL CONSIDERATIONS..... | 85 |
| <i>Confidentiality.</i> | 86 |
| <i>Informed consent.</i> | 86 |
| <i>Inducing distress.</i> | 87 |
| <i>Child welfare concerns.</i> | 88 |
| PARTICIPANTS..... | 88 |
| <i>Recruitment strategies.</i> | 88 |
| <i>Reimbursement.</i> | 89 |
| <i>Inclusion criteria.</i> | 90 |
| <i>Demographic information.</i> | 91 |
| Families. | 91 |
| Young people..... | 93 |
| <i>Drug use histories.</i> | 95 |
| DATA COLLECTION | 97 |
| <i>Interviews.</i> | 97 |
| <i>Interviewing children.</i> | 98 |
| DATA ANALYSIS..... | 100 |
| RESPONDENT VALIDATION | 102 |
| CHAPTER V - FINDINGS (STUDY 1)..... | 103 |
| THEME 1. BENEFITS | 106 |
| 1.1 <i>Positive stimulation</i> | 106 |
| 1.1.1 Pleasure | 107 |
| 1.1.1.1 Enjoyment | 107 |
| 1.1.1.2 Intoxication | 107 |
| 1.1.1.3 Reward | 107 |
| 1.1.1.4 Creativity | 107 |
| 1.1.1.5 Aphrodisiac..... | 108 |
| 1.1.2 Stimulant effects..... | 108 |
| 1.1.2.1 Motivation and energy | 108 |
| 1.1.2.2 Focus | 108 |

| | | |
|----------------|-----------------------------------|-----|
| 1.1.2.3 | Sporting ability | 109 |
| 1.2 | <i>Social benefits</i> | 109 |
| 1.2.1 | Socialising | 109 |
| 1.2.2 | Social status | 110 |
| 1.2.3 | Talkative..... | 110 |
| 1.2.4 | Compassion..... | 110 |
| 1.2.5 | Relationships..... | 111 |
| 1.3 | <i>Reducing discomfort</i> | 111 |
| 1.3.1 | Stress management | 111 |
| 1.3.1.1 | Relaxation..... | 111 |
| 1.3.1.2 | Coping | 112 |
| 1.3.1.3 | Cognitive processing | 112 |
| 1.3.1.4 | Boredom..... | 112 |
| 1.3.2 | Mood management | 113 |
| 1.3.2.1 | Emotional protection | 113 |
| 1.3.2.2 | Depression | 113 |
| 1.3.2.3 | Anxiety | 113 |
| 1.3.2.4 | Anger | 114 |
| 1.3.3 | Medicinal use..... | 114 |
| 1.3.3.1 | Nausea and appetite | 114 |
| 1.3.3.2 | Withdrawals | 114 |
| 1.3.3.3 | Pain..... | 114 |
| 1.3.3.4 | Insomnia..... | 115 |
| SUMMARY. | | 115 |
| THEME 2. HARMS | | 116 |
| 2.1 | <i>Intoxication</i> | 116 |
| 2.1.1 | Cognition..... | 116 |
| 2.1.1.1 | Sluggish cognition..... | 116 |
| 2.1.1.2 | Attention | 116 |
| 2.1.1.3 | Driving | 117 |
| 2.1.1.4 | Memory..... | 117 |
| 2.1.1.5 | Time | 117 |
| 2.1.2 | Mental health | 118 |
| 2.1.2.1 | Depression | 118 |
| 2.1.2.2 | Anxiety | 118 |
| 2.1.2.3 | Flashbacks | 119 |
| 2.1.2.4 | Anger | 119 |
| 2.1.2.5 | Paranoia | 120 |
| 2.1.2.6 | Schizophrenia and psychosis | 120 |
| 2.1.2.7 | Cannabis withdrawal | 120 |

| | | |
|---------|-------------------------------------|-----|
| 2.1.3 | Passive smoking | 121 |
| 2.1.4 | Social issues | 122 |
| 2.1.4.1 | Sexual | 122 |
| 2.1.4.2 | Conversation | 122 |
| 2.1.5 | Amotivational syndrome..... | 123 |
| 2.1.5.1 | Lethargy | 123 |
| 2.1.5.2 | Hangover | 123 |
| 2.1.5.3 | Social withdrawal | 124 |
| 2.1.5.4 | Hinders progress | 124 |
| 2.1.5.5 | Education | 124 |
| 2.1.6 | Physical effects | 125 |
| 2.1.6.1 | Heart and lungs | 125 |
| 2.1.6.2 | Muscular tension..... | 125 |
| 2.1.6.3 | Appetite..... | 125 |
| 2.1.6.4 | Headaches | 126 |
| 2.2 | <i>Long-term risks</i> | 126 |
| 2.2.1 | Health | 126 |
| 2.2.1.1 | Heart and lungs | 126 |
| 2.2.1.2 | Cancer | 126 |
| 2.2.1.3 | Diabetes | 127 |
| 2.2.1.4 | Gum disease | 127 |
| 2.2.1.5 | Toxicity | 127 |
| 2.2.2 | Avoidant coping | 127 |
| 2.2.2.1 | Failure to deal with problems | 127 |
| 2.2.2.2 | Avoiding emotions | 128 |
| 2.2.2.2 | Placebo effect..... | 128 |
| 2.2.3 | Financial | 128 |
| 2.2.3.1 | Expensive | 128 |
| 2.2.3.2 | Justifying the cost..... | 130 |
| 2.2.3.3 | Buying in bulk | 130 |
| 2.2.4 | Legalities | 131 |
| 2.2.4.1 | Drug testing..... | 131 |
| 2.2.4.2 | Employment | 132 |
| 2.2.4.3 | Legal status..... | 133 |
| 2.2.4.4 | Criminals..... | 133 |
| 2.2.4.5 | Police attention | 134 |
| 2.2.4.6 | Drug dealing | 135 |
| 2.2.4.7 | Supplying family members | 136 |
| 2.2.4.8 | Being discreet..... | 136 |
| 2.2.5 | Social..... | 137 |

| | | |
|-------------------------|--------------------------------------|-----|
| 2.2.5.1 | Social disapproval..... | 137 |
| 2.2.5.2 | Worry | 138 |
| 2.2.5.3 | Partner complaints..... | 138 |
| 2.2.5.4 | Family tension | 139 |
| 2.2.5.5 | Substitute for attachment | 140 |
| 2.2.5.6 | School..... | 140 |
| 2.2.6 | Polydrug use | 141 |
| 2.2.6.1 | Gateway hypothesis | 141 |
| 2.2.6.2 | Tobacco | 142 |
| 2.2.6.3 | Alcohol | 143 |
| 2.2.7 | Intergenerational drug use | 143 |
| 2.2.7.1 | Easier to use | 143 |
| 2.2.7.2 | Stealing parent's cannabis..... | 144 |
| SUMMARY. | | 145 |
| THEME 3. PROBLEMS | | 145 |
| 3.1 | <i>Soft drug choice</i> | 146 |
| 3.1.1 | Acute effects | 146 |
| 3.1.2 | Wears off quickly | 146 |
| 3.1.3 | Long-term effects..... | 147 |
| 3.1.4 | Alcohol | 148 |
| 3.1.5 | Other drugs | 148 |
| 3.1.6 | Lack of withdrawal symptoms | 149 |
| 3.1.7 | Affordable | 149 |
| 3.2 | <i>Drug-related problems</i> | 150 |
| 3.2.1 | Recognition of problematic use | 150 |
| 3.2.2 | Polydrug use | 152 |
| 3.2.3 | Excessive use..... | 152 |
| 3.2.4 | Individual differences..... | 152 |
| 3.2.5 | Cannabis dependency | 153 |
| 3.2.6 | Quantifying use | 154 |
| 3.2.7 | Inconsistencies..... | 156 |
| 3.2.8 | Perceptions of control | 157 |
| 3.3 | <i>Dosage control</i> | 158 |
| 3.3.1 | Level of intoxication..... | 159 |
| 3.3.2 | Potency | 159 |
| 3.3.3 | Method of delivery | 160 |
| 3.3.4 | Ingesting it | 160 |
| 3.3.4 | Mixing it with AOD | 161 |
| 3.4 | <i>Lifestyle factors</i> | 161 |
| 3.4.1 | Drug using lifestyle..... | 162 |

| | | |
|------------------------------|---|-----|
| 3.4.2 | Drug-seeking behaviour | 163 |
| 3.4.3 | Drug deals and criminality | 164 |
| 3.5.1 | Use across time | 165 |
| 3.5.2 | Tolerance | 166 |
| 3.5.3 | Exit drug | 167 |
| 3.6 | <i>Quitting or reducing</i> | 167 |
| 3.6.1 | Withdrawal | 168 |
| 3.6.2 | Treatment | 169 |
| 3.6.3 | Coping strategies | 170 |
| 3.6.4 | Changing social circles | 171 |
| 3.6.5 | Never want to quit | 172 |
| 3.6.6 | Reasons | 172 |
| SUMMARY. | | 173 |
| THEME 4. ATTITUDES | | 174 |
| 4.1 | <i>Modelling and drug-related behaviour</i> | 174 |
| 4.1.1 | Initiation | 174 |
| 4.1.2 | Young people's drug use | 176 |
| 4.1.3 | Openness with parents | 177 |
| 4.1.4 | Saying no | 179 |
| 4.1.5 | Attitude to parental drug use | 180 |
| 4.1.6 | Parent blame | 181 |
| 4.1.7 | Other influences | 182 |
| 4.2 | <i>Normalisation of cannabis use</i> | 183 |
| 4.2.1 | Everyone does it | 183 |
| 4.2.2 | Developmentally normal | 184 |
| 4.2.3 | You outgrow it | 184 |
| 4.2.4 | Normal in my family | 185 |
| 4.2.5 | Normalising drug deals | 186 |
| SUMMARY. | | 187 |
| THEME 5. COMMUNICATION | | 188 |
| 5.1 | <i>Children's awareness</i> | 189 |
| 5.1.1 | Parent openly uses | 189 |
| 5.1.2 | Parent hides use | 191 |
| 5.1.3 | Smell | 192 |
| 5.1.4 | Early awareness | 192 |
| 5.1.5 | I always knew | 193 |
| 5.2 | <i>Conversations about drug use</i> | 194 |
| 5.2.1 | Keeping the secret | 194 |
| 5.2.2 | Absence of discussion | 195 |
| 5.2.3 | Talking about parental use | 196 |

| | | |
|--|-----------------------------------|-----|
| 5.2.4 | Parental advice | 198 |
| 5.2.5 | Mixed messages..... | 199 |
| 5.2.6 | Drug education | 200 |
| 5.2.7 | Attitude to parental advice | 200 |
| 5.3 | <i>Other information</i> | 201 |
| 5.3.1 | Media | 201 |
| 5.3.2 | Health Department | 202 |
| 5.3.3 | School | 203 |
| 5.3.4 | Drug knowledge | 204 |
| SUMMARY. | | 205 |
| THEME 6. PARENTING | | 206 |
| 6.1 | <i>Positive effects</i> | 206 |
| 6.1.1 | Beneficial | 206 |
| 6.1.2 | Playful | 206 |
| 6.2 | <i>Adverse effects</i> | 207 |
| 6.2.1 | Overly agreeable | 207 |
| 6.2.2 | Discipline..... | 208 |
| 6.2.3 | Financial impact | 208 |
| 6.2.4 | Transporting children..... | 209 |
| 6.2.5 | Housework..... | 209 |
| 6.2.6 | Emotionally unavailable | 210 |
| 6.2.7 | Guilt | 211 |
| 6.2.8 | School | 211 |
| 6.2.9 | Benefits after quitting | 212 |
| 6.3 | <i>Outcomes</i> | 212 |
| 6.3.1 | Family descriptions | 213 |
| 6.3.2 | Distress and anger | 217 |
| 6.3.3 | Separated families | 219 |
| 6.3.4 | Education | 220 |
| 6.3.5 | Extra-curricular activities | 221 |
| 6.3.6 | No harm done | 221 |
| 6.3.7 | Harm overlooked | 222 |
| 6.4 | <i>Boundaries</i> | 223 |
| 6.4.1 | Parent-child boundaries..... | 224 |
| 6.4.2 | Smoking together..... | 225 |
| SUMMARY. | | 227 |
| THEME 7. HARM REDUCTION STRATEGIES | | 228 |
| 7.1 | <i>Dosage control</i> | 229 |
| 7.1.1 | Level of intoxication | 229 |

| | | |
|-------|---|------------|
| 7.1.2 | Potency | 229 |
| 7.1.3 | Method of delivery | 230 |
| 7.1.4 | Mixing with alcohol..... | 231 |
| 7.2 | <i>Dependency</i> | 231 |
| 7.2.1 | Frequency of use..... | 231 |
| 7.2.2 | Self-monitoring | 231 |
| 7.2.3 | Mixing with tobacco..... | 232 |
| 7.3 | <i>Acute risk</i> | 232 |
| 7.3.1 | Monitor mood..... | 232 |
| 7.3.2 | Prioritise responsibilities..... | 233 |
| 7.3.3 | Avoid driving..... | 233 |
| 7.4 | <i>Long-term harm</i> | 233 |
| 7.4.1 | Active coping..... | 234 |
| 7.4.2 | Drug-seeking | 234 |
| 7.4.3 | Low profile | 234 |
| 7.5 | <i>Harm to children</i> | 235 |
| 7.5.1 | Separation from children | 235 |
| 7.5.2 | Obtaining cannabis | 235 |
| 7.5.3 | Storing securely | 236 |
| 7.5.4 | Prioritising children's needs..... | 236 |
| 7.5.5 | Cost | 237 |
| | SUMMARY. | 237 |
| | CHAPTER VI - DISCUSSION (STUDY 1)..... | 240 |
| | THEME 1. BENEFITS | 240 |
| | THEME 2. HARMS..... | 243 |
| | THEME 3. PROBLEMS | 248 |
| | THEME 4. ATTITUDES | 257 |
| | THEME 5. COMMUNICATION | 260 |
| | THEME 6. PARENTING | 264 |
| | THEME 7. HARM REDUCTION STRATEGIES | 271 |
| | CHAPTER VII - METHOD (STUDY 2)..... | 282 |
| | RESEARCH AIMS & RATIONALE | 282 |
| | RESEARCH DESIGN..... | 282 |
| | ETHICAL CONSIDERATIONS..... | 282 |
| | <i>Confidentiality</i> | 282 |
| | <i>Informed consent</i> | 282 |
| | PARTICIPANTS..... | 282 |
| | <i>Recruitment strategies</i> | 282 |
| | <i>Inclusion criteria</i> | 283 |

| | |
|--|------------|
| <i>Demographic information.....</i> | <i>283</i> |
| DATA COLLECTION..... | 283 |
| DATA ANALYSIS..... | 283 |
| RESPONDENT VALIDATION | 284 |
| CHAPTER VIII - FINDINGS (STUDY 2)..... | 285 |
| FAMILY 1 CASE STUDY..... | 285 |
| <i>Family Background.....</i> | <i>285</i> |
| <i>Parental Drug Use</i> | <i>285</i> |
| <i>Benefits of Cannabis Use</i> | <i>287</i> |
| <i>Potential for Harm</i> | <i>288</i> |
| <i>Parenting.....</i> | <i>292</i> |
| <i>Use of Drugs by Young People in the Family</i> | <i>296</i> |
| <i>Validation/feedback Interview.....</i> | <i>303</i> |
| <i>Summary and Conclusion</i> | <i>304</i> |
| FAMILY 3 CASE STUDY..... | 306 |
| <i>Family Background.....</i> | <i>306</i> |
| <i>Parental Drug Use</i> | <i>307</i> |
| <i>Benefits of Cannabis Use.....</i> | <i>309</i> |
| <i>Potential for Harm</i> | <i>310</i> |
| <i>Parenting.....</i> | <i>314</i> |
| <i>Use of Drugs by Young People in the Family.....</i> | <i>318</i> |
| <i>Validation/feedback Interview.....</i> | <i>320</i> |
| <i>Summary and Conclusion</i> | <i>321</i> |
| CHAPTER IX - DISCUSSION (STUDY 2)..... | 323 |
| FAMILY 1 | 323 |
| FAMILY 3 | 327 |
| CONCLUSION | 327 |
| CHAPTER X - GENERAL DISCUSSION | 330 |
| VALIDITY..... | 333 |
| LIMITATIONS OF THE CURRENT STUDY. | 335 |
| IMPLICATIONS OF THE CURRENT FINDINGS | 337 |
| FUTURE RESEARCH | 339 |
| CONCLUSION | 341 |
| REFERENCES | 345 |
| APPENDICES | 392 |
| <i>Appendix A - Glossary of Terms and Local Slang.....</i> | <i>393</i> |
| <i>Appendix B - Research Flyer</i> | <i>399</i> |

| | |
|---|------------|
| <i>Appendix C - Media Release</i> | <i>400</i> |
| <i>Appendix D - Letter of Introduction.....</i> | <i>401</i> |
| <i>Appendix E - Participant Information Sheet/Interviewer's Agreement for Parents</i> | <i>402</i> |
| <i>Appendix F - Demographic Information Sheet</i> | <i>404</i> |
| <i>Appendix G - Interview Protocol.....</i> | <i>405</i> |

List of Tables

| Table # | Title | Page # |
|---------|---|--------|
| Table 1 | Demographic information: 19 parents from 13 families | 92 |
| Table 2 | Demographic information: 24 children and young people from 13 families | 94 |
| Table 3 | Thematic structure | 103 |
| Table 4 | Harm reduction strategies | 238 |
| Table 5 | Evidence for harm reduction strategies | 276 |

Chapter I - Introduction to the Current Research

Terminology

Within the field of alcohol and other drugs (AOD) there is debate about the merits of various terminologies to describe problematic drug use. Some have argued that the term *addict* is pejorative and contributes to the perpetuation of negative stereotypes, as does the term *addiction*, which implies that physical processes compel individuals to adopt uncontrolled or excessive patterns of drug use (Fox & Mathews, 1992; Gossop, 2007; Walters & Gilbert, 2000). The terms *abuse* and *misuse* are also subject to debate, despite being widely used (Fox & Mathews, 1992; Gossop, 2007). The literature on drug use and parenting, as reviewed in Chapter II of the current thesis, predominantly referred to *substance abusers* and *substance abuse*, and largely examined drug use that was dependent and chaotic in nature. Substance abuse is defined by the World Health Organisation (WHO) as:

A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following: failure to fulfil major role obligations at home, school or work; substance use in situations in which it is physically hazardous; recurrent substance-related legal problems; continued substance use despite having persistent or recurrent social or interpersonal problems exacerbated by the effects of the substance.
(World Health Organization [WHO], 2004, p.15)

Throughout the current paper, I have used the terms *drug use* and *problematic or problem drug use*, as appropriate. The chosen terms acknowledge that drug use occurs on a continuum and does not necessarily result in problems or produce impairment in parenting capacity or other areas of functioning. In this thesis, problem drug use refers to psychoactive substance use that has an adverse impact on the health and wellbeing of the user or his or her family. In discussing the research, I have endeavoured to identify the specific drug involved where feasible.

Drug Use

Psychoactive drugs are natural or synthetic substances that alter psychological states, moods, and perceptions (Gossop, 2007) by acting on the neural mechanisms that regulate mood, thought, and emotions (WHO, 2004). Drug use is an almost universal phenomenon, although societies vary in terms of which drugs are permitted or preferred, with some allowed to be used freely, others limited to prescription by medical practitioners (i.e., medications) and others being subject to international drug controls (i.e., illegal drugs or narcotics) (Weil, 1973; WHO, 2004).

Psychoactive drugs exert their effects through acting on the mesolimbic dopamine system (WHO, 2004) and are often used habitually to facilitate pleasure, comfort, satisfaction, or relief,

and to cope with stress (Becker, 1953; Fox & Mathews, 1992; Glynn, LoCastro, Hermos, & Bosse, 1983; Kuhn, Swartzwelder, & Wilson, 2008; Lee, Neighbors, & Woods, 2007; Lende, Leonard, Sterk, & Elifson, 2007; Osborne & Fogel, 2008; Pearson, 2001; Theakston, Stewart, Dawson, Knowlden-Loewen, & Lehman, 2004; Weil, 1973). However, the widespread use of coffee, alcohol, cigarettes, and medications is viewed differently from the use of other drugs (Gossop, 2007; Weil, 1973). Gossop (2007) has suggested that the inability of most people to recognise that these widely used substances are even drugs, stems from a widespread and irrational fear of drugs, yet illegal drugs are often used in similar ways and for the same reasons that people use legal drugs. For example, up to one-third of all prescriptions written by doctors in Western countries involve the use of psychoactive drugs intended to relieve pain, manage mood disorders, and facilitate either sleep or wakefulness (WHO, 2004).

The sociolegal status of psychoactive drugs is not related to intrinsic properties that differentiate those that are forbidden from those that are permitted (Kuhn, et al., 2008; WHO, 2004) yet when people think about drug users, images of deviance and stereotypes of the 'junkie' automatically come to mind (Fox & Mathews, 1992; Gossop, 2007). It has been argued that emotional reactions to drug use create a barrier to understanding important issues associated with drug taking (Gossop, 2007; Klee, Jackson, & Lewis, 2001; Kuhn, et al., 2008). Gossop (2007, p. 2) noted that much of the damage associated with drug use stems from "*mistaken laws and policies*" and "*hypocritical and self-deluding attitudes*" rather than from any intrinsic properties of the drugs themselves. Hence, subjective beliefs and biased attitudes have historically permeated research and policy about drug use because scientific questions about drug use get mixed up with personal morality and ideology (Gossop, 2007; Kuhn, et al., 2008; McKay & Tennant, 2000).

While the vast majority of drug use does not cause problems, many people clearly use drugs in ways that negatively affect their health and create problems for their families. Hence, societies tend to categorise drugs as either 'good' (i.e., medications) or 'bad' (i.e., illegal drugs) and there is a widely held view that certain drugs are illegal because they are more harmful than others (Gossop, 2007). However, laws regarding drug use often have their basis in political expediency and moral and ideological arguments rather than evidence based reasons (Fox & Mathews, 1992; Gossop, 2007; Kuhn, et al., 2008).

Public opinion about various drugs is influenced by culture, religion, politics, and economics, rather than knowledge about how drugs affect people (Fox & Mathews, 1992; Gossop, 2007; Kuhn, et al., 2008; Lenton & Allsop, 2010). Therefore, patterns of drug use and ideas about which

drugs are permissible within a society change over time and are often unrelated to the relative harm associated with a specific drug (Fox & Mathews, 1992; Kuhn, et al., 2008; Robins, 1995). For example, current evidence indicates that the harm associated with the use of alcohol and tobacco is far greater than that associated with cannabis, however, these drugs continue to be widely available, whereas the use of cannabis is illegal (Donnelly & Hall, 1994; Fox & Mathews, 1992; Kuhn, et al., 2008; Lenton & Allsop, 2010). It has been suggested that rather than a specific type of drug (e.g., cannabis versus alcohol) problematic drug use might be closely linked to the motives for use, such that, problematic drug use is a more likely outcome when the motivation is coping, rather than social or life-enhancing (Lee, et al., 2007; Simons, Correia, & Carey, 2000). Understanding the motivation and functional specificity underlying illegal drugs should facilitate the delivery of relevant information and interventions to prevent problematic drug use (Lee, et al., 2007; Simons, et al., 2000).

Cannabis

Cannabis is the generic term for the psychoactive substance obtained from the *Cannabis* plant, which is widely cultivated for the purpose of altering consciousness (Budney & Stanger, 2012). The terms *cannabis* as it is used in the current paper refers only to *marijuana*, which is essentially the leaves and flowering tops (also known as *buds* or *heads*) of the cannabis plant), which are usually dried, crushed, and smoked. The cannabis plant contains more than 60 chemical compounds (cannabinoids) with the main active ingredient being delta-9-tetrahydrocannabinol (THC). *Hashish* (or *hash*) is a separate product produced from firmly pressed resin extracted from the cannabis plant; it is more potent than marijuana (Fox & Mathews, 1992). Sticky, honey coloured oil (*hash oil*) can also be extracted from the cannabis plant and is even more potent than hash due to higher concentrations of THC (Fox & Mathews, 1992). Hash and hash oil are rarely used in Australia (Copeland, Gerber, Rowland, & Klyde-Kingshot, 2005), hence, the term cannabis as used throughout this paper refers to the smoked product commonly known as marijuana. In Australia, cannabis is usually smoked in either a water pipe, known as a *bong*, or in a cannabis cigarette, known as a *joint* (Copeland, et al., 2005).

Prevalence and trends.

Cannabis is the most commonly used illegal drug in the Western world (United Nations Office on Drugs and Crime [UNODC], 2012). In Australia, there was a trend toward an overall reduction in the use of cannabis between 1998 and 2010 (Australian Institute of Health and Welfare [AIHW], 2011a). According to the 2010 National Drug Strategy Household Survey (NDSHS)

recent use (i.e., within 12 months of survey) across all age groups decreased from a peak of 18% in 1998 (AIHW, 1998) to 10% in 2010 (AIHW, 2011a). Nonetheless, community tolerance for cannabis use has increased and it continues to be far more widely used than other illegal drugs, with over 35% of the Australian population having used cannabis at least once, whereas much smaller numbers try other illegal drugs (AIHW, 2011a). For example, only 10% of Australians have ever tried ecstasy, the second most widely used illegal drug (AIHW, 2011a).

When it comes to indicators of more frequent use, 10% of Australians report recent use of cannabis, compared to 3% for ecstasy and 2% for the use of amphetamine-type stimulants (ATS) (AIHW, 2011a). Young Australians currently use cannabis at levels similar to their rates of tobacco use; in the 20 to 29 year age group, 21% reported recent use of cannabis compared with 24% for recent use of tobacco (AIHW, 2011a). Thirteen percent of recent users reported using cannabis every day and males were more likely than females to use cannabis at least once a week (AIHW, 2011a). Statistics suggest that illicit drug use is predominantly the domain of younger adults because most illegal drug use is ceased by the age of 40, however, cannabis use might be an exception (Fox & Mathews, 1992), with higher rates of daily and weekly use evident amongst 30 to 39 year-olds and those over 40 (AIHW, 2011a). This trend suggests that many people continue their cannabis use throughout the years in which they are likely to be raising children.

Examination of Australian statistics by Degenhardt, Lynskey, and Hall (2000b) confirmed a greater prevalence of lifetime cannabis use amongst more recently born Australian cohorts, together with increasingly younger initiation into cannabis use. Although NDSHS figures suggest that the age of initiation into cannabis use has remained stable at 18 to 19 years, analyses of mean age of first use by cohort revealed that initiation into cannabis use has actually been occurring at a younger age with each successive cohort, decreasing to 14 years amongst those born between 1980 and 1984 (Degenhardt, et al., 2000b). Similar trends have emerged in the USA, with those aged between 15 and 17 years constituting the majority (60%) of new cannabis users; the remainder being children under the age of 15 (Dennis, Babor, Roebuck, & Donaldson, 2002). Furthermore, in the USA the number of adolescents using cannabis on a daily basis almost doubled from 11% in 1994 to 20% in 1998 (Substance Abuse and Mental Health Services Administration [SAMHSA], 2000) and it has been estimated that approximately 25% of the general population have used cannabis on at least 30 consecutive days at some stage (Kandel & Davies, 1992; Kaplan, Martin, Johnson, & Robbins, 1986).

Australia has seen the emergence of similar trends, with 15% of cannabis users reporting daily use and little reduction in daily use being evident across age groups (AIHW, 2008). Furthermore, significant reductions in the overall use of cannabis by the Australian population between 1998 and 2010 occurred in the context of increased treatment seeking for problematic cannabis use, with 23% of treatment-seeking episodes in 2004-05 involving cannabis as the principle drug of concern (AIHW, 2006). In summary, trends indicate earlier onset of cannabis use amongst younger cohorts, coupled with a trend toward increased levels of daily consumption by cannabis users of all ages, including those likely to be parenting young children and adolescents. Early initiation, and regular cannabis use during adolescence are associated with increased risk of future problematic drug use, delinquency, lower levels of education, criminal behaviour, and impaired mental health (Copeland & Swift, 2009; Kandel & Davies, 1992; Solowij & Grenyer, 1995). Given the poor outcomes associated with early onset adolescent cannabis use, it is important to understand more about the use of cannabis within families, because in some families cannabis will be used by parents, as well as by the younger generation.

Legal status.

Cannabis has been smoked for centuries and the medicinal properties of marijuana saw its inclusion in the United States (US) Pharmacopoeia until 1942 when it became illegal to use cannabis. It became a Schedule 1 category drug (deemed to have no medical value and high potential for abuse) under the Controlled Substance Act of 1970 (Taylor, 2008). On the one hand, cannabis is subject to international controls (WHO, 1997), and, on the other hand, the use of cannabis is a routine aspect of daily life, within many homes and communities (Pearson, 2001). In fact, a report by the European Monitoring Centre for Drugs and Drug Addiction [EMCDDA] has suggested that cannabis might be on the way to becoming a functional equivalent of alcohol (Sznitman, Olsson, & Room, 2008).

Although evidence is mounting that cannabis is less dangerous than alcohol and other controlled drugs (Sznitman, et al., 2008), research and debate about cannabis continues to be driven by social, political, and moral agendas (McKay & Tennant, 2000). Criminal prohibition is based on the notion that some drugs should be banned entirely (Erickson & Murray, 1989) and generally speaking, the more widely available a drug is, the higher its prevalence of use will be in the general population (Donnelly & Hall, 1994). Hence, arguments against decriminalising cannabis are largely driven by concerns that this would lead to increases in its use and subsequent harm. Research, however, has been unable to detect a relationship between harsher criminal

sanctions and rates of cannabis use (Zimmer & Morgan, 1997). For example, despite increased rates of arrest, incarceration, and forfeiture of property for cannabis offences in the USA during the 1990s, adult cannabis use remained steady and adolescent use continued to increase (Zimmer & Morgan, 1997). Furthermore, it has been noted that the harm associated with criminal penalties for cannabis possession is often out of proportion to the risk of harm to self and society from cannabis use (Gossop, 2007; Zimmer & Morgan, 1997). This view has contributed to ongoing debate within many countries, including Australia and the United Kingdom (UK), about the merits of criminalising cannabis use (Copeland, 2012; Hall, 2009; Kuhn, et al., 2008; Thomas, 1996).

Decriminalisation involves replacing penal sanctions (e.g., imprisonment) with civil sanctions (e.g., fines & education) and many countries have moved toward reductions in the penalties associated with possessing small quantities of cannabis for personal use (Copeland, Frewen, & Elkins, 2009). Single (1989) reviewed the effects of cannabis decriminalisation in 11 American states and found a small increase in prevalence for states with decriminalisation. However, this finding was complicated by the fact that these states had much higher rates of cannabis use to begin with and because similar increases occurred across states without decriminalisation (Donnelly & Hall, 1994). The introduction of civil sanctions in South Australia (SA) did not lead to significantly greater increases in cannabis use in SA compared with the rest of Australia (Donnelly & Hall, 1994). In the Netherlands, where cannabis is openly sold in some coffee shops, cannabis prevalence amongst adults is similar to that found in the USA and other European countries that have harsher policies (Reinarman, Cohen, & Kaal, 2004; Zimmer & Morgan, 1997). Furthermore, recent statistics from England and Wales indicate that relaxing of cannabis penalties did not lead to increased rates of cannabis use (Macdonald, 2008). Hence, decriminalisation of cannabis does not appear to be associated with increased rates of use.

Despite global trends towards a softening of the penalties for possession of cannabis, in most countries it continues to be formally classified as a prohibited drug (Gossop, 2007). The status of cannabis continues to be debated between those who argue that its use is usually transitory and produces few social and health consequences (Robins, 1995; Shedler & Block, 1990; Sydney, 2003) and those who believe that cannabis use contributes to escalating and problematic drug use (Andreasson & Allebeck, 1990; Henry, Oldfield, & Kon, 2003). After tobacco and alcohol, cannabis is the most widely used drug in the world and, therefore, the most widely consumed illegal drug (UNODC, 2012). For many people the use of cannabis has become quite normalised (Pearson, 2001; Ross & Davies, 2009; Shukla, 2005), yet possession of cannabis, particularly in the

UK and the USA continues to attract harsh legal sanctions, including incarceration (Gossop, 2007). The use of cannabis continues to be illegal throughout Australia, although the possession of small quantities has been decriminalised in some Australian jurisdictions (Copeland, et al., 2005, 2009; Lenton & Allsop, 2010; Swift, Copeland, & Lenton, 2000).

Over 5 ½ million individuals in Australia have used cannabis at some stage (AIHW, 2008), creating a dilemma for law enforcement officers who have the task of enforcing the law despite a high level of community acceptance and a widespread willingness to engage in cannabis use despite its illegal status (Bingham & Cheverall, 2011). Police have noted that cannabis use tends to be quite short-lived and that most cannabis users do not engage in other activities that are outside of the law (Bingham & Cheverall, 2011). Current policy in NSW, for example, is to issue a caution for first-time cannabis possession and to refer individuals to services that provide information and treatment about cannabis use. The benefits of this system are that most offenders are dealt with outside of the criminal justice system allowing police and the courts to attend to higher priority matters. The NSW Cannabis Cautioning Scheme has the support of police officers, as well as the public, and means that individuals who would otherwise be unlikely to come into contact with the justice system are less likely to wind up with criminal records (Bingham & Cheverall, 2011). A similar system operates in Western Australia (WA) where police have discretion to direct an individual to attend a Cannabis Intervention Session with a drug counsellor if they are charged with possession of a smoking implement or less than 10 grams of cannabis and it is a first offence (WA Police, 2014).

Psychoactive effects.

Smoked THC is absorbed quickly into the blood producing effects that are experienced immediately by the user, whereas THC that is orally administered (either by prescription or by making foodstuffs that contain cannabis) is much slower in its onset and produces more pronounced (often unfavourable) effects that last much longer (Taylor, 2008). The amount of active THC and other cannabinoids in any cannabis preparation varies widely and is dependent upon plant genetics, growing conditions, and how it is processed and stored after harvest (Taylor, 2008). Although cannabis is widely regarded as relatively harmless, the subjective and neurobiological consequences of cannabis use are largely dependent upon dosage and patterns of use (Schneider, 2008; Thorley, 1980; WHO, 1997). Unlike alcohol, nicotine, and other drugs, no standard unit exists for the measurement of cannabis consumption (Earleywine, 2002) and wide

variation exists in terms of the potency of different cannabis plants (ElSohly et al., 2000), which makes it difficult for research to accurately gauge the effects of specific doses (WHO, 1997).

Australian cannabis markets are dominated by high quality hydroponically grown cannabis (Sindicich & Stafford, 2012; Stafford & Burns, 2011) and it has been argued that contemporary cannabis users are using strains of cannabis that are 10 or 20 times more potent than cannabis that was smoked during the 1960s and 1970s (Welch, 2005), however, evidence suggests a more moderate doubling of THC content (EMCDDA, 2004; McLaren, Swift, Dillon, & Allsop, 2008; Office of National Drug Control Policy, 2010). Concentrations of THC vary widely, depending on the strain of cannabis, the maturity of the plant when harvested, and specific content of the sample (e.g., flowering tops or whole herb) (Cartwright & Mather, 2006; ElSohly, et al., 2000; National Cannabis Prevention and Information Centre (NCPIC), 2008). It has recently been suggested that the potency of cannabis might be a function of the ratio of THC versus cannabidiol (CBD) which has antipsychotic and anxiolytic properties that might offset some of the psychoactive effects of THC (Morgan & Curran, 2008; Potter, Clark, & Brown, 2008). It has been argued that experienced cannabis users recognise more potent batches and are competent at self-titrating to gain the desired effect, thereby inhaling less smoke when the cannabis is more potent (Associated Press, 2008; Gossop, 2007; Taylor, 2008). In any case, the subjective experience of cannabis intoxication (being *stoned*) varies considerably (Zimmer & Morgan, 1997) and these factors contribute to the many difficulties associated with empirical examination of the effects of cannabis use.

Cannabis is very different in composition to other drugs and is difficult to categorise because under different circumstances it can act as a stimulant, a depressive, an analgesic, a sedative, or a mild hallucinogen (Fox & Mathews, 1992; Gossop, 2007). The effects of cannabis vary widely amongst individuals and are dependent on a number of factors, including: personal and physiological characteristics; expectations and previous experiences; concurrent drug use; emotional state prior to use; the social and physical setting in which use occurs; the quantity and potency of the cannabis; and the method of administration (Hall, Degenhardt, & Lynskey, 2001; O'Brien, 1996; Tart, 1970; Zinberg, 1984). Nonetheless, cannabis users commonly report that it produces a sense of relaxation and heightened perceptions of auditory, visual, tactile, taste, and other sensory stimuli, as well as the experience of time seeming to pass more slowly (Astolfi, Leonard, & Morris, 1998; Gossop, 2007; Osborne & Fogel, 2008; Tart, 1970). Hence, cannabis is often used to intensify and prolong experiences that are already pleasurable, such as listening to music, eating, having sex, or watching a movie (Goode, 1970; Gossop, 2007; Osborne & Fogel,

2008; Pearson, 2001; Tart, 1970). Furthermore, there is abundant evidence to support the use of cannabis or its constituents in the treatment of medical conditions and symptoms, including chronic pain, persistent nausea, weight loss, and arthritis (Swift, Gates, & Dillon, 2005; Taylor, 2008; WHO, 1997). Research into therapeutic uses of cannabis has been limited by factors related to its illegal status and difficulty with titration of dosages. Side effects, residual effects, and concerns about the potential for long-term problems associated with smoking as the primary method of administration, have also had implications (Taylor, 2008).

Harms.

Opinion about the harmfulness or otherwise of cannabis use has led to a debate between those that trivialise its use and those that demonise its use (Hall, 2006c, 2009). This polarisation of views has made it difficult to have an objective discourse on the topic and has influenced the research agenda. Findings are often contradictory and inconclusive. Nonetheless, there is evidence that cannabis use can lead to problems for some people (Hall, 2009). Early onset of use has been identified as especially risky, and is associated with poorer outcomes, particularly for those who are environmentally or genetically vulnerable (Kandel & Davies, 1992; Schneider, 2008). The risk of cannabis-related problems is also increased in the context of concurrent tobacco use and a predisposition toward mental health problems (Arcuri, Copeland, & Howard, 2008). Emerging evidence suggests that young people are at a higher risk than adults of experiencing adverse consequences associated with cannabis use (Fergusson, Horwood, & Swain-Campbell, 2002; Hall, 2009; Schneider, 2008) and this has seen ongoing efforts aimed at preventing the uptake of such illegal drugs by adolescents (Holt, 2008; Moore, 2008; Newcomb & Bentler, 1988; O'Connor, 1990; Shedler & Block, 1990). Nonetheless, the majority of cannabis users are healthy, young people who use it intermittently rather than daily (Hollister, 1986) and most do not seek treatment (Copeland, et al., 2009; Shukla, 2005).

When young people seek treatment for their cannabis use it often occurs in the context of coercion under the direction of courts, families, or schools (Copeland, et al., 2009; Hathaway, Callaghan, MacDonald, & Erickson, 2009). Like the use of alcohol (Szmigin et al., 2008), patterns of adolescent cannabis use are likely to be different to the patterns of use among older cannabis users. Ross and Davies (2009) found that young people living in Glasgow, Scotland grew up in an environment where non-use of cannabis was rare. These adolescents smoked cannabis using improvised pipes (e.g., *bucket bongs*) and usually met daily in flats dedicated to drug use. Ross and Davies argued that the drug use patterns of these young adolescents mimicked the use of

harder drugs, particularly the smoking of heroin or crack cocaine, and suggested that they were at an increased risk of using other illegal drugs. These young people lived with high rates of social disadvantage, school dropout and unemployment, family drug use and family breakdown. Exposure to heavy and continual drug use was a community norm. These are all factors that in a major Australian review were found to predict an individual's drug use after adjustment for other known risk factors (Loxley et al., 2004). Older siblings and peers were key role models and the young people viewed heavy cannabis use as normal and initiation into cannabis use as an insignificant and normative event that occurred between the ages of 11 and 15 (Ross & Davies, 2009). This pattern of cannabis use, involving early onset of use and the adoption of a lifestyle that focused almost entirely on drug use, tends to be associated with poorer outcomes. Adolescents who use cannabis weekly or more frequently are more likely to become daily cannabis users in young adulthood (Patton et al., 2007), and are less likely to quit using than those who take up cannabis at a later age (de Wit, Offord, & Wong, 1997).

In the USA, statistics indicate that 20% of high school students (compared with 10% of the general public) report daily cannabis use (Johnston, O'Malley, & Bachman, 2001). Increased problems, greater addiction severity, and polydrug use are associated with early-onset of drug use (Chambers, Taylor, & Potenza, 2003; Chen, O'Brien, & Anthony, 2005; Coffey, Carlin, Lynskey, Li, & Patton, 2003; Fergusson, Horwood, Lynskey, & Madden, 2003b; Kandel & Davies, 1992; Kandel, Yamaguchi, & Chen, 1992). Hence, adolescents who use cannabis regularly are at greater risk for developing cannabis-related problems, including dependency, impaired mental health, criminal offending, and lower educational achievement (Copeland, 2012; Kandel & Davies, 1992).

A number of somatic side effects have been reported, including dry mouth; dizziness, fatigue and sleepiness; a reddening of the eyes; increased appetite; increased heart rate; and a drop in blood pressure on standing (Copeland, et al., 2009; Gossop, 2007; Tart, 1970; Taylor, 2008). Short-term (acute) effects include difficulties with cognition, especially short-term memory, learning, and attention, and feelings of anxiety, panic, depressed mood, and paranoia are sometimes experienced, particularly by novice users (Astolfi, et al., 1998; O'Brien, 1996; Tart, 1970; WHO, 1997). Cannabis intoxication is considered to have a deleterious effect on motor skills, co-ordination, and reaction time, thereby affecting the ability to operate a motor vehicle or other equipment safely (Asbridge, Hayden, & Cartwright, 2012; Beardsley & Kelly, 1999; Kelly, Darke, & Ross, 2004; Sewell, Poling, & Sofuoglu, 2009), however, the relationship between cannabis use and driving is more complex than it is for alcohol and driving (Sewell, et al., 2009).

Furthermore, the concurrent use of alcohol and cannabis, even in small doses, considerably increases the risk of a motor vehicle crash (Sewell, et al., 2009).

The psychoactive effects of cannabis use include altered perceptions of time; impaired judgement; social withdrawal; and anxiety (Copeland, et al., 2009) but less is known about the long-term consequences of regular cannabis use, although this evidence base is growing (Copeland, 2012). Understanding of the long-term effects of using cannabis are hampered by high rates of polydrug use and a long lead time for chronic effects to become evident (Copeland, et al., 2009). Long-term use of cannabis increases the risks for cancer, lung damage, and bacterial pneumonia (Taylor, 2008). The use of cannabis can impair aspects of cognitive functioning, exacerbate schizophrenia or psychosis in vulnerable individuals, and might contribute to poor outcomes if used during pregnancy (Taylor, 2008).

Due to its illegal nature and the difficulties of discreet consumption, cannabis use occurs almost exclusively within private homes and frequently in the context of polydrug use, with 87% of recent cannabis users reporting that they consumed alcohol on the same occasion that they used cannabis (AIHW, 2008). Some 28% had taken 'designer' drugs such as ecstasy when using cannabis, and 24% reported recent use of ATS with cannabis (AIHW, 2008). Given the context in which cannabis is used (i.e., use in private homes) and its potential for producing harmful effects, there is a need to document the dynamics of local cannabis use so that appropriate prevention, treatment, and harm reduction strategies can be developed. In Australia, the widespread availability of cannabis, coupled with smoking as the main method of administration, suggests that any harm associated with its use has the capacity to be widely felt. For example, a very high rate of heavy cannabis use by young people in some remote Australian communities contributes to high rates of family violence and mental health problems (Delahunty & Putt, 2006). Hence, it is important that our understanding of the health and psychological impact of long-term cannabis use be informed by well-designed research because it has implications for public health officials, educators, policy makers, and consumers.

Individuals who use cannabis also tend to use other drugs and the hazards of drug use are strongly linked to other factors, including the social, political, and economic context of use and other lifestyle factors (WHO, 1997). Despite smoking cannabis regularly for years, some people experience few (if any) adverse physical, psychological, or social consequences (Grinspoon & Bakalar, 1993; Novak, 1980). In 1982, both the Institute of Medicine (IOM) and the World Health Organisation (WHO) reviewed the cannabis research and were unable to find convincing evidence

of biological harm, psychological impairment, or social maladjustment amongst cannabis users (WHO, 2004; Zimmer & Morgan, 1997). Although it was noted that some long-term cannabis users had psychological and social problems, such problems were often evident prior to his or her use of cannabis (Zimmer & Morgan, 1997). In reviewing the health aspects of cannabis, Hollister (1986) concluded that cannabis posed no greater risks than alcohol, tobacco, or caffeine. These early studies focused on comparing moderate cannabis users with non-users, however, more recent research has tended to focus on heavy cannabis users (Zimmer & Morgan, 1997). Heavy cannabis users differ from occasional and non-users across a number of dimensions. They tend to be male, have used various other psychoactive drugs, and often have multiple problems that predate their use of cannabis (Zimmer & Morgan, 1997). The study of heavy cannabis users is more likely to identify harmful effects (Greenberg, Mendelson, Kuehnle, Mello, & Babor, 1976) although it is difficult to determine whether such effects are actually caused by cannabis use. In any case, as research has become more sophisticated, a clearer understanding of the risks and harms associated with cannabis use is beginning to emerge. For example, cannabis dependence and withdrawal syndromes have now been recognised and are discussed further in the next section and the potential for cannabis related harm in the context of pregnancy, parenting, and the family is discussed further in the literature review in chapter II.

Cannabis dependence.

Until the 1980s, cannabis was not regarded as a drug of dependency due to the lack of evidence related to physiological withdrawal symptoms (Ashton, Moore, Gallagher, & Young, 2005; Cooper & Haney, 2008; Copeland, 2012). During the 1990s, following the discovery of the endogenous cannabinoid system, epidemiological and clinical data began to challenge this position, and a cannabis withdrawal syndrome has been identified (Budney & Hughes, 2006; Cooper & Haney, 2008; Copeland, 2006). Cannabis is a complex drug that contains 60 different types of cannabinoids, with THC being the primary psychoactive component (Cooper & Haney, 2008; Felder & Glass, 1998; Grinspoon, Bakalar, & Russo, 2005). Cannabinoids activate the mesolimbic dopamine system of the brain, which is responsible for the reinforcing and rewarding effects associated with its use (French, Dillon, & Wu, 1997; Gardner, 1992, 2005; Tanda & Goldberg, 2003; Tanda, Pontieri, & Di Chiara, 1997) and tolerance to the effects of cannabinoids occurs (Bass & Martin, 2000; Coffey et al., 2002; Gonzalez, Cebeira, & Fernandez-Ruiz, 2005). Hence, cannabis affects the central nervous system in a similar fashion to most other illegal drugs.

Most cannabis users are light users irrespective of their age of initiation into cannabis use (Kandel & Chen, 2000) and 90% of those who ever use cannabis do not go on to develop daily or prolonged patterns of use (Kandel & Davies, 1992). Research in the US, using a nationally representative sample and standardised (DSM-III-R) diagnostic assessments, found that approximately 1 in 13 Americans (7.5%) aged between 15 and 54 had a history of drug dependence, which suggests that problematic drug use is affecting more Americans than other psychiatric disturbances (Anthony, Warner, & Kessler, 1994). Anthony, et al. (1994) reported that approximately 1 in 3 (32%) tobacco smokers become dependent on nicotine and 1 out of approximately 6 (15%) drinkers developed dependent patterns of alcohol use. In regards to illegal drugs, approximately 1 in 11 (9%) cannabis users became dependent, compared to about 1 in 7 (17%) cocaine users. These estimates suggest that a significant number of individuals are likely to develop dependent patterns of cannabis use but that rates of dependency might not be as high as for other drugs, including alcohol, tobacco, and cocaine.

Although other illegal drugs produce self-administration in animals, this does not usually occur with cannabis even at high doses (Adams & Martin, 1996; Compton, Dewey, & Martin, 1990; Schenk & Partridge, 1999; Wiley, 1999). Those studies that do find self-administration amongst animals have often restricted food and water intake to induce cannabis self-administration (Cooper & Haney, 2008). Hence, the reinforcement capacity of cannabis is not as robust as it is with heroin and cocaine (Cooper & Haney, 2008) and dependence is less severe than with other drugs, including alcohol, tobacco, and cocaine (Grinspoon, et al., 2005; Hathaway, et al., 2009; Joy, Watson, & Benson, 1999; Strike, Urbanoski, & Rush, 2003). Even though most individuals have discontinued their use of cannabis by the time they are in their late twenties (Kandel & Davies, 1992), greater numbers of people are affected by cannabis dependence than for other illegal drugs because cannabis is used at higher rates than the other illegal drugs (Anthony, et al., 1994; AIHW, 2011a). The risk of cannabis dependence peaks at the age of 17 years and very few cases of cannabis dependence are identified amongst those over the age of 30, as opposed to the risk for alcohol dependence, which continues throughout the middle years of adulthood (Wagner & Anthony, 2002).

It is now widely accepted that users develop tolerance to many of the subjective effects of using cannabis and that a mild withdrawal syndrome occurs when cannabis use is abruptly discontinued (Budney & Hughes, 2006; Budney, Moore, Vandrey, & Hughes, 2003; Budney, Novy, & Hughes, 1999; Chung, Martin, Cornelius, & Clark, 2008; Copersino et al., 2006b; Kouri, Pope, &

Lukas, 1999). Withdrawal symptoms include irritability, restlessness and mild agitation; sleep disturbances and insomnia; cravings and mood swings; and some individuals experience nausea and cramps (Budney & Hughes, 2006; Copeland, 2012; Taylor, 2008; WHO, 1997). Abstinence symptoms are mild in comparison to those associated with ceasing opiates or benzodiazepines but similar to those experienced during nicotine withdrawal (Budney & Hughes, 2006; Budney, Hughes, Moore, & Novy, 2001). Withdrawal symptoms tend to peak within a few days after stopping cannabis use, with the exception of sleep disturbance, which settles after about 2 weeks of abstinence in most cases (Budney & Hughes, 2006; Copeland, 2012). Nonetheless, withdrawal symptoms contribute to the development of a cannabis dependency syndrome (Taylor, 2008; WHO, 1997) and can be a significant challenge for those trying to cease their use of cannabis (Copeland, 2012).

Long-term cannabis use is associated with flat affect, depression, and low energy levels, as well as anxiety, panic attacks, and paranoia (Chacin, 1996; Strike, et al., 2003). Physical health problems, memory loss, interpersonal problems, anhedonia, financial problems, and inappropriate use (e.g., at work or when driving) have also been reported (Copeland, Swift, & Rees, 2001; Stephens, Roffman, & Simpson, 1993; Strike, et al., 2003). Participants in a cannabis treatment program were found to spend a quarter of their income on cannabis (Copeland, et al., 2001). In a study that followed cannabis users for 5 years, 9% developed problems related to their cannabis use, including negative effects of the drug, interpersonal difficulties, and problems controlling their use (Weller & Halikas, 1980). Hence, for some people cannabis use can be associated with a considerable degree of harm. The availability hypothesis states that the more widely a drug is available in a society, the more people will use it, increasing the likelihood that people will experience problems related to its use (Gossop, 2007). Furthermore, individuals are at a higher risk for poor outcomes, including social and legal consequences, depression, dependence, and motor vehicle crashes, when cannabis is used concurrently with alcohol (Barnwell, Earleywine, & Gordis, 2005; Midanik, Tam, & Weisner, 2007).

Treatment seeking.

International statistics indicate that the greatest increases in treatment-seeking for drug-related problems have involved cannabis as the principle drug of concern (Copeland, et al., 2009). Despite the relative modesty of physiological dependence, the number of people diagnosed as cannabis dependent and the number of those seeking treatment has risen steadily (Copeland, 2012). In Australia, the increasing availability and social acceptance of cannabis use is associated

with an increase in the numbers of people seeking treatment for problems associated with cannabis use (AIHW, 2006). Cannabis was the principle drug of concern for 23% of those seeking treatment in the 2009 to 2010 reporting period (AIHW, 2011). Increases in treatment-seeking for cannabis dependence might be linked to concern or pressure by family members, employers, or the courts (Zimmer & Morgan, 1997), including the current cannabis cautioning schemes and drug diversion courts operating in some Australian jurisdictions.

Although the use of cannabis is common and rates of treatment seeking have increased, relatively few users present directly to AOD programs seeking help with the management of their cannabis use (Hathaway, et al., 2009; Kwong, Howard, & Arcuri, 2010). Individuals are more likely to discuss their use of cannabis with their primary health provider (GP) or mental health provider (Copeland, 2012), in the context of a secondary concern such as depression or anxiety (Roxbrough & Degenhardt, 2008). The majority of cannabis users do not seek treatment or professional support related to their cannabis use (Agnosti & Levin, 2004; Kwong, et al., 2010) and high-dose frequent users who decide to reduce or cease their intake often have very little difficulty doing so (Kandel & Davies, 1992). Nonetheless, some people they find the process of reduction or cessation difficult (Hendin, 1987; Stephens, et al., 1993; Tunving, Lundquist, & Eriksson, 1987) and the use of tobacco concurrently with cannabis contributes to difficulties with quitting cannabis (Agrawal et al., 2008; Amos, Wilshire, Bostock, Haw, & McNeill, 2004; Copeland, 2006; Patton, Coffey, Carlin, Sawyer, & Lynskey, 2005). Dependent adult cannabis users who were trying to reduce or cease their cannabis use often made multiple attempts to quit but were more likely to achieve reductions in use than abstinence regardless of their initial goals (Hughes, Peters, Callas, Budney, & Livingston, 2008).

Most cannabis users in drug treatment settings also use alcohol or other drugs, although they tend not to use other drugs at problematic levels (Strike, et al., 2003). Drug preference varies by cohort and across age groups, hence, the principle drug of concern for which people seek treatment also varies by age. Younger users are more likely to seek treatment for cannabis-related problems (AIHW, 2006; 2011). Cannabis users represent a greater proportion of the cohort of 10 to 19 year olds in treatment than in older age cohorts (AIHW, 2006; 2011). Young people presenting with cannabis-related problems display poorer mental health than primary users of alcohol, opioids, and ATS but tend to be less criminally involved (Arcuri, et al., 2008). Nonetheless, 71% of all drug-related arrests in Australia during the 2004-05 year involved the use of cannabis (Australian Crime Commission [ACC], 2006). Overall, these statistics suggest that

harmful outcomes associated with cannabis use continue to be a problem for a considerable number of cannabis users.

Purpose of the Current Research

The voices of drug users are rarely evident in the literature, which tends to focus on extreme levels of drug use and to portray drug users in an entirely negative light. Therefore, it is important that research incorporate consumers' perspectives when trying to understand the factors that contribute to harm and those that foster resilience. Researchers and policy makers would benefit by understanding the role that cannabis plays in the lived experience of cannabis users and their families as a first step in developing appropriate research strategies and public health policies for cannabis users. Additionally, there is a need to know much more about the issue of parental drug use, including the use of cannabis, to determine its effect on parenting and family development. The current study explored the benefits and harms associated with cannabis use from the perspective of regular cannabis users, their partners, and their adolescent or young adult children. Furthermore, the research was intended to identify any harm reduction strategies (i.e., things that might minimise the risk of cannabis-related harm to the user, their children, and others) adopted by cannabis users who were raising adolescents or young adults.

Importance of the Current Research

The health and psychosocial effects of cannabis dependence are under-recognised and under-treated in primary healthcare settings, as well as in more specialist services directed at mental health and problem drug use (Copeland, 2012). Furthermore, the use of illegal drugs by parents of dependent children, especially mothers, is a topic that arouses strong emotions and heated debate (Klee, et al., 2001) and the use of drugs is frequently a prominent issue in child protection matters (Dawe et al., 2006; Harbin & Murphy, 2000). On the one hand, an Australian parliamentary inquiry into the impact of drug use on families recommended that children be permanently removed from parents who were "addicted to illicit drugs, including cannabis" (House of Representatives Standing Committee on Family and Human Services, 2007). On the other, the NSW Supreme Court ordered the return of two children to their parents in January 2009, finding that child welfare authorities were in serious abuse of their positions by keeping the children in care due to the parents' recreational use of cannabis (Palmer, 2008). Hence, the issue of drug use in the context of child rearing evokes a range of opinions and thorough research is necessary to provide policy makers with sound empirical evidence upon which to inform social policy and child welfare decisions.

Parental drug use is a relatively recent phenomenon brought about by widespread changes in attitudes towards drug use during the 1960s and 1970s (Kandel, 1990; Zinberg, 1984). According to international surveys, approximately 10% of children live in homes where parents misuse alcohol or other drugs, and parental drug use is a contributing factor in about half of all families that come to the attention of child welfare authorities (Dawe, et al., 2006; Harbin & Murphy, 2000). Nonetheless, very little is actually known about the consequences of drug use (as opposed to alcohol use) on family functioning, child rearing, and child development (Hogan, 1998; Kandel, 1990). There has been a tendency to generalise from the findings about children of problem drinkers to children of drug users, despite a lack of empirical evidence to support such a generalisation (Hogan, 1998; Merikangas, Dierker, & Fenton, 1998a). Although there has been some research carried out amongst children of problem drinkers (Copello, Orford, Velleman, Templeman, & Krishnan, 2000; Orford & Velleman, 1990; Orme & Rimmer, 1981; Velleman, 1993, 1996) very little research has directly considered the views of children of drug users. In a review by Gorin (2004) only one published study was identified (i.e., Barnard & Barlow, 2003) which included the perspectives of children from families where parents used illegal drugs; parents in this study were mainly heroin users. It is not clear that a parent's use of cannabis impacts on their children's lives in the same way that a parent's use of opioids does. Interviews with children of current cannabis users may provide some indication of how parental cannabis use affects families and children.

Limitations and Scope of the Current Research

In the current research I used a mixed qualitative approach to explore cannabis use within families. This research involved the use of a small, purposive sample of 13 families in which at least one parent was a regular cannabis user, meaning that he or she had used cannabis at least once a week during the 12 months preceding interview. Those who had used other illegal drugs during the past 12 months were precluded from participation. Participant families were required to have adolescent children or young adults currently living at home to allow for incorporation of the child's perspective without being entirely reliant on retrospective reports. The emphasis was on participants who were *not* in treatment for cannabis-related problems as they would be more inclined to be representative of the broader community of cannabis users. A non-clinical sample was more likely to be managing their cannabis use effectively and using harm reduction strategies to minimise the likelihood of harm to family members. Although findings from this small sample are unable to be generalised to the larger body of cannabis users, findings from the current

research might nonetheless provide useful information in terms of the management of cannabis use by those who are parenting. Discussions with family members should provide some initial data about the perceived effectiveness of any strategies used by cannabis users to reduce harm to family members. The design of the current study was not expected to provide conclusive data about the impact of parental cannabis use on children. Instead, it allowed children and other family members to comment on their experience of living with a regular cannabis user.

Chapter II - Review of the Parental Illegal Drug Use Literature

In this chapter the literature about parental use of illegal drugs was reviewed to gain an understanding of the effect that parental use of drugs has on the welfare and development of children. The effects of parental drug use are best considered within a developmental framework that encompasses physical, psychological, cognitive, social, and behavioural development (Cleaver, Unell, & Aldgate, 2011). However, to date much of the research pertaining to children of drug users has been biological and medical rather than social or psychological. The issue of prenatal exposure to drugs has received considerably more research attention (e.g., Finnegan & Fehr, 1980; Fried, 1996; Hans, 1996; Kaltenbach & Finnegan, 1984; Kaltenbach & Finnegan, 1992a; Kaltenbach, 1996; Lester et al., 2002; Wetherington, Smeriglio, & Finnegan, 1996; Zuckerman, 1993) than the ongoing influence of the caretaking environment (Klee, 1998). In the current review, literature on prenatal exposure to illegal drugs is summarised, followed by a more detailed examination of the literature regarding ongoing parental drug use and its covariates. This review does not encompass the literature about parental use of alcohol, which is well documented elsewhere (e.g., Black & Mayer, 1980; Brisby, Baker, & Hedderwick, 1997; Coleman & Cassell, 1995; Copello, et al., 2000; Emshoff & Price, 1999; Meredith & Price-Robertson, 2011; Orford & Velleman, 1990; Orme & Rimmer, 1981; Velleman, 1993, 1996; Velleman & Templeton, 2007).

The Effects of Prenatal Exposure to Illegal Drugs

The study of women's drug use is a relatively new endeavour because early research in the field focused on the use of alcohol and heroin by males (Inciardi, Surratt, & Saum, 1997). Although estimates can only be obtained indirectly from surveys of adult drug use, the majority of drug use occurs during the child-bearing years (Australian Institute of Health and Welfare [AIHW], 2008; Dixon, 1989) and the growing literature on parental drug use predominantly relates to *maternal* drug use. The use of AOD during pregnancy is known to produce a range of adverse effects (National Centre for Education and Training on Addiction [NCETA] Consortium, 2004) and the gap between rates of drug use for men and women has been closing (Zilberman & Blume, 2005). Hence, women of a childbearing age are increasingly more likely to be using drugs, such as cannabis, when they are pregnant. Mothers, rather than fathers, are usually charged with responsibility for ensuring the wellbeing and health of their children (Magura & Laudet, 1996) and using illegal drugs is generally regarded as being incompatible with motherhood (Boyd, 1999; Klee, 1998; Klee, et al., 2001). Hence, women who use illegal drugs when pregnant or parenting are highly stigmatised and viewed as amongst the most irresponsible members of society (Boyd, 1999;

Ettorre, 1992; Inciardi, et al., 1997; Murphy & Rosenbaum, 1999). Negative attitudes held by professionals, who respond more strongly toward the misuse of illegal drugs than the misuse of alcohol (Forrester, 2000; Phillips, 2004), act as a barrier to women identifying as drug users (Klee et al., 2001). Consequently, increased rates of drug use amongst women have not seen a corresponding increase in women presenting at specialist maternity and treatment services (Klee, et al., 2001).

The use of illegal drugs by women creates unique challenges in terms of their individual and family development. Given the data about pregnant users' chaotic and stressful lifestyles (Coleman & Cassell, 1995; Corbett, 2005; Free, Russell, Mills, & Hathaway, 1990; Hawley, Halle, Drasin, & Thomas, 1995; Hogan & Higgins, 2001; Kroll & Taylor, 2003; McKeganey, Barnard, & McIntosh, 2002), many of these women must overcome formidable challenges to effectively meet their maternal responsibilities. Hence, their experience of motherhood is likely to be particularly stressful and challenging, increasing the need for early, appropriate, and accessible sources of support. In the USA, estimates indicate that between 6% and 20% of all pregnancies involve maternal use of illegal drugs (Bays, 1990; Chasnoff, Landress, & Barrett, 1990; Dixon, 1989; Lester, LaGasse, & Bigsby, 1998). Australian statistics suggest that approximately one child in ten lives in a home in which a parent is misusing alcohol or other drugs (Copeland, 2006), and some of these are likely to be women who also used illegal drugs when they were pregnant. Children prenatally exposed to illegal drugs are considered to be at a high risk for maladaptive development (NCETA, 2004; Young, 1997), and to understand their needs it is important to identify any specific drug-related problems that are likely to occur.

Methodological considerations.

Researchers examining prenatal exposure to drugs face a number of challenges including the technical ability to determine levels of exposure, varying approaches to child assessment, and considerable issues related to the recruitment and retention of participants (Arendt, Singer, Angelopoulos, Bass-Busdiecker, & Mascia, 1998; Carmichael Olson, Grant, Martin, & Streissguth, 1995; Robins & Mills, 1993; Smeriglio & Wilcox, 1999). Women who use illegal drugs are notoriously difficult to follow-up, and those who remain involved with longitudinal studies are likely to be different from those who do not (Richardson, Day, & McGauhey, 1993). Furthermore, as the cohorts of children under examination grow older, new informed consent issues arise, including whether data obtained from children should be disclosed to a parent, the requirement for child assent, and issues about disclosure of the nature of the study and the exposure status of

the child (Smeriglio & Wilcox, 1999). Identifying children as drug-exposed has the potential to stigmatise them and could be as harmful as any actual effects of drug use (Leshner, 1998). Hence, there are many challenges to overcome in designing studies that examine prenatal exposure to drugs, especially in terms of ethics and sample selection.

Early studies relied on global measures of development (e.g., Bayley Scales of Infant Development, IQ tests) whereas more recent research has begun to look beyond the cognitive domain and to examine more subtle aspects of functioning (Smeriglio & Wilcox, 1999). Hence, a variety of outcome measures pertaining to attention, emotional regulation, arousal, language, play, parent-child interactions, behavioural problems, motor function, and various aspects of problem-solving are now included (Lester, et al., 1998). The use of more sophisticated assessment measures is intended to facilitate the discovery of associations between prenatal exposure to drugs and more subtle aspects of developmental functioning that might otherwise be overlooked (Bendersky, Alessandri, Sullivan, & Lewis, 1995; Smeriglio & Wilcox, 1999). However, the wide range of assessment instruments used makes it difficult to compare and contrast outcomes across studies (Lester, et al., 1998). Furthermore, Although global measures might not be sensitive to important potential areas of dysfunction, other methods (e.g., observations) have less validity and reliability, and require assessors to be blind to the child's inclusion in either the control group or drug-exposed condition (Zuckerman & Frank, 1992b). Hence, future research would benefit from the consistent use of measures selected on the basis of hypotheses (Lester, et al., 1998).

Confounding factors.

Many important confounding factors are highly correlated with prenatal exposure to illegal drugs and these variables, including poverty, ongoing parental drug use, and mother's mental health status, also strongly influence developmental outcomes for children independently of drug use (Smeriglio & Wilcox, 1999). For example, women who use heroin during pregnancy often experience a wide range of medical problems, including inadequate or non-existent antenatal care and nutritional deprivation (Kandall, 1996). Unfortunately, researchers have often failed to control or report on important confounding variables. Therefore, even when poor outcomes are noted, it is difficult to establish causality (Lester, Frejer, & LaGasse, 1995; Neuspiel, 1995; Robins & Mills, 1993). Furthermore, the use of illegal drugs commonly occurs in a polydrug context that frequently includes the use of alcohol and tobacco, as well as multiple types of drugs. Research has identified significant harmful outcomes associated with the use of alcohol and tobacco during

pregnancy. Thus, polydrug use (especially legal drug use) during pregnancy is a major complicating factor in the study of prenatal exposure to illegal drugs.

Alcohol.

Prenatal exposure to alcohol is considered the leading cause of preventable birth defects, developmental disorders, and mental retardation in children (Welch-Carre, 2005). Foetal Alcohol Syndrome (FAS) encompasses the impaired growth, neurological development, and facial abnormalities associated with heavy maternal alcohol use during pregnancy (Jones & Smith, 1973; O'Leary, 2002; Welch-Carre, 2005). Although the characteristic facial features diminish over time, the intellectual impairment associated with FAS is permanent. Individuals born with FAS experience intellectual and behavioural problems, coupled with maladjusted social-psychological functioning throughout the lifespan (Chiriboga, 2003; O'Leary, 2002). Hence, in-utero exposure to alcohol, particularly during the first trimester, can have severe consequences for the unborn child's long-term development. Not all children exposed to heavy alcohol consumption develop FAS. Factors such as the timing of intake and quantity of alcohol consumption, as well as socio-behavioural risk factors (e.g., poverty, maternal smoking) play an important role in determining outcomes for children.

Research has concentrated on the effects of heavy/binge drinking and chronic alcoholism, however, adverse effects have also been consistently found with lower levels of alcohol consumption (i.e., 7 drinks per week) (Jacobson, Chiodo, Sokol, & Jacobson, 2002). The effects of alcohol consumption during pregnancy occur along a continuum and do not always meet criteria for FAS. Hence, the term Foetal Alcohol Spectrum Disorder (FASD) is now used to denote any effects attributed to exposure to alcohol during pregnancy (Martin & Dombrowski, 2008). There is controversy about the quantity and frequency of alcohol consumption that will produce FASD (O'Leary, 2002) and a safe threshold for alcohol use during pregnancy has not been established (Martin & Dombrowski, 2008; Welch-Carre, 2005). Research is increasingly pointing to a dose-response relationship that results in behavioural, social, and attentional deficits in youth who were prenatally exposed to even light to moderate alcohol use (Martin & Dombrowski, 2008). Thus, the use of alcohol during pregnancy, even in minimal amounts, is currently considered risky (Martin & Dombrowski, 2008; Welch-Carre, 2005) and little is known about the consequences of combining alcohol with illegal drugs, such as cannabis.

Tobacco.

Smoking tobacco also has a range of known effects on the foetus, including increased incidences of spontaneous abortion and stillbirth, low birth weight, premature birth, and Sudden Infant Death Syndrome (SIDS) (Chiriboga, 2003; Dempsey & Benowitz, 2001). Maternal smoking during pregnancy is associated with a substantially increased incidence of behavioural problems, including Attention-Deficit Hyperactivity Disorder (ADHD), Conduct Disorder, and antisocial behaviour (Wakschlag, Pickett, Cook, Benowitz, & Leventhal, 2002; Weitzman, Kavanaugh, & Florin, 2006), as well as physical health problems (e.g., diabetes, obesity) (Montgomery & Ekblom, 2002) and psychological problems (Dempsey & Benowitz, 2001). Cognitive deficits (in the verbal domain) have been observed in school-aged children of women who smoked during pregnancy, and such deficits appear to be dose related (Fried, Watkinson, & Gray, 1998). Although methodological limitations inherent in this type of research usually preclude causal conclusions, a large number of epidemiologic studies have consistently found increased rates of cognitive and behavioural effects in children of smokers, even when they have controlled for many potentially confounding variables (Martin & Dombrowski, 2008; Weitzman, et al., 2006). The adverse effects of tobacco smoking are now thought to be a consequence of the neurotoxicity of chemicals delivered during smoking (including carbon monoxide and lead) as opposed to being primarily related to the effects of nicotine (Dempsey & Benowitz, 2001; Weitzman, et al., 2006). Most drug use occurs in a polydrug use context that includes the use of alcohol and tobacco. Therefore, the serious outcomes associated with cigarette smoking and alcohol consumption during pregnancy make it very difficult to untangle any unique contributions of other drugs on the developing foetus.

Types of illegal drugs.

Studies that have examined outcomes for children prenatally exposed to polydrug use (including cannabis, heroin, cocaine, alcohol, and tobacco) have found that a majority of such children experienced significant developmental delays across a number of domains (e.g., language, motor skills, attentional) (Beckwith et al., 1994; Young, Wallace, & Garcia, 1992). However, it is difficult to determine whether such delays were related to prenatal drug exposure or to the postnatal care environment. It is important that researchers examine developmental outcomes by drug type because the chemical properties of drugs vary considerably, as do drug-using contexts and patterns of use. It is only by looking at the use of specific types of drugs in isolation from others that it becomes possible to determine whether adverse outcomes occur across various

drugs or whether they are specific to a particular type of drug (as appears to be the case) or drug-related lifestyle (Williams & Ross, 2007). A brief summary of the findings as they relate to opioids, cocaine, ATS, and cannabis is provided below. For each of these drug types, the research relating to neonatal withdrawal symptoms is briefly discussed, however, the emphasis in this review was on long-term developmental outcomes, i.e., those that extend beyond the neonatal period.

Opioids.

The opioids are a family of analgesic compounds that act like morphine (Hutchings & Zmitrovich, 1995) and most of the research on children of drug users is drawn from studies examining the effects of maternal opioid use, i.e., heroin or methadone use (Deren, 1986). Detoxification is contraindicated during pregnancy because withdrawal from opioids increases the risk of miscarriage, prematurity, foetal distress, and infant mortality (Finnegan, 1991; Kaltenbach & Finnegan, 1992a; Royal Women's Hospital, 2003). Methadone is a synthetic opioid that is usually taken orally; methadone maintenance treatment (MMT) is the preferred treatment protocol for pregnant heroin users (Finnegan, 1991; Hutchings & Zmitrovich, 1995). The effects of methadone are similar to heroin but longer lasting (Hans, 1992). Women maintained on methadone tend to receive better prenatal care and are more likely to have favourable outcomes (Kaltenbach & Finnegan, 1992a; Stimmel, 1982; Wilson, 1992; Young, 1997). Neither heroin nor methadone are considered to be teratogenic (Hutchings & Zmitrovich, 1995; Ornoy, Michailovskaya, Lukashov, Bar-Hamburger, & Harel, 1996), however, longitudinal studies are limited (Wilson, 1992). Opioid use during pregnancy is frequently complicated by the context of its use within a chaotic lifestyle in which significant health and social problems predominate (Zilberman & Blume, 2005).

Neonatal Abstinence Syndrome.

Neonatal Abstinence Syndrome (NAS) refers to the withdrawal (abstinence) symptoms experienced by infants exposed to opioids during late pregnancy (Ostrea & Garcia, 1997). Heroin and methadone cross the placenta and induce physical dependence in some 60% to 90% of opioid-exposed infants (Committee on Drugs, 1998; Perlmutter, 1974; Western Australian Centre for Evidence Based Nursing and Midwifery, 2007). The symptoms of NAS vary in severity and duration, however, excessive distress is common. NAS can interfere with early bonding between mother and infant, and means the infant might initially be difficult to care for, however, withdrawal symptoms are usually short-lived and amenable to medical management. NAS is

primarily associated with opioids and hypnotosedatives, however, researchers continue to explore the possibility that similar withdrawal syndromes might occur with exposure to other drugs.

Developmental outcomes.

With some exceptions (e.g., Bauman & Dougherty, 1983; Bauman & Levine, 1986), the literature indicates that exposure to opioids during pregnancy is largely unrelated to long-term developmental outcomes in children (Chasnoff, Schnoll, Burns, & Burns, 1984; Kaltenbach & Finnegan, 1986a, 1986b; Lifschitz, Wilson, Smith, & Desmond, 1983, 1985; Messinger et al., 2004; Sowder & Burt, 1980a, 1980b; Strauss, Lessen-Firestone, Chavez, & Stryker, 1979; Wilson, 1992; Wilson, Desmond, & Wait, 1981). Kaltenbach and Finnegan (1984) critically reviewed five longitudinal studies and found that methadone-exposed infants scored within the normal range on the Bayley Scales of Infant Development through the first 2 years of life. Only two studies of older children were available (Kaltenbach & Finnegan, 1986a; Strauss, et al., 1979), both of which found that at 4 and 5 years of age exposed children scored in the same range as those in a comparison group on several standard measures of cognitive performance. A more recent review by Lifschitz and Wilson (1991) concluded that the long-term effects on growth and intellectual functioning of children (up to 3 years of age) were not consistent. Kaltenbach (1996), however, concluded that the cognitive functioning of children 2 to 5 years of age who were exposed to opioids did not differ from matched controls. Psychosocial demographic factors were more consistently related to outcomes than maternal opioid use was. These reviews suggest that there are few long-term developmental sequelae directly associated with prenatal exposure to opioids. Nonetheless, there is a paucity of well-controlled research examining long-term outcomes.

Cocaine.

Cocaine is a central nervous system stimulant that exerts a similar neurochemical action to amphetamines but with a much shorter half-life (Dixon, 1989; Gawin & Ellinwood, 1988). In the USA, a great deal of research has been directed toward understanding the effects of in-utero cocaine exposure (Inciardi, et al., 1997). Abrupt cessation of cocaine use does not produce the dramatic physical withdrawal syndromes associated with alcohol and heroin use (Fajemirokun-Oduyei & Lindow, 2004; Inciardi, et al., 1997; Scherling, 1994). Nonetheless, cocaine produces intense cravings in users and women find it difficult to cease use during pregnancy despite the risk of harmful outcomes (Chiriboga, 2003). A multitude of other drugs (e.g., heroin, benzodiazepine, cannabis) are frequently used to minimise the severe depression and agitation that follows the short-lived high associated with cocaine use (Scherling, 1994). Alcohol, cannabis, and tobacco are

commonly taken with cocaine (Fajemirokun-Odudeyi & Lindow, 2004; Lester, et al., 1998), hence, prenatal exposure to cocaine is now widely seen as synonymous with exposure to polydrug use (Jones, 1995; Lester, et al., 1998). Early studies reported high rates of adverse effects in the children of cocaine users, including SIDS, withdrawal symptoms, physical malformations, as well as significant social, emotional, and behavioural problems. However, much of this research is problematic due to methodological flaws, especially in terms of lack of control groups and failure to control for important confounding variables, such as polydrug use, socioeconomic status (SES), premature delivery, and lack of prenatal care (Inciardi, et al., 1997; Lester, et al., 1995; Lewis & Bendersky, 1995; Richardson, et al., 1993; Zuckerman, 1993). Hence, the current review emphasised more recent longitudinal research that overcomes many of the limitations of earlier work.

Neonatal Abstinence Syndrome.

Cocaine is often cited as causing NAS (e.g., Ostrea & Garcia, 1997), however, a predictable pattern of abstinence has not been defined in infants affected by cocaine (Committee on Drugs, 1998; Eyler et al., 2001; Lester, et al., 1995; Mayes, 1992; Young, 1997; Zuckerman & Frank, 1992b) and there is far less support for this position when observers are blind to the infant's drug exposure status (see Eyler, et al., 2001). Infants exposed to cocaine are often difficult to arouse and quickly become overstimulated and irritable (Chasnoff, 1992; Dow-Edwards, Chasnoff, & Griffith, 1992; Mayes, 1992; Zuckerman & Frank, 1992b). Chasnoff and colleagues (1989) have argued that neurobehavioural indicators seen in cocaine-exposed infants reflect the neurotoxic effects of the drug rather than the effects of its withdrawal. Hence, at birth these infants are more likely to benefit from sensitive caregiving practices than from medication regimes used to treat NAS.

Developmental outcomes.

Infants exposed to cocaine are often reported to be small and to have microcephaly (smaller head circumference) which reflects poorer brain growth and is a marker for long-term risk (Inciardi, et al., 1997). However, recent prospective studies have found that such differences failed to emerge when important covariates (e.g., SES, gestational age) were taken into account (Hurt et al., 1995; Messinger, et al., 2004; Richardson, et al., 1993; Richardson, 1998; Shiono et al., 1995). Research indicates that alcohol, smoking, gestational age, and a lack of prenatal care accounts for the majority of differences between infants exposed to cocaine and those who were not (Richardson, et al., 1993; Richardson & Day, 1994). Although some research has identified

inappropriate responses to stimuli, attentional impairments, language difficulties, and other learning and behavioural problems suggestive of impaired neurological functioning (Berger & Waldfogel, 2000; Delaney-Black et al., 2000; Griffith, Azuma, & Chasnoff, 1994; Leech, Richardson, Goldschmidt, & Day, 1999; Lester, et al., 1998; Morrow et al., 2003; Richardson, 1998; Tronick & Beeghly, 1999), many of these effects were small and have not been replicated. Regardless of which outcome measures are examined, there are as many reports of no effects (Arendt et al., 2004; Chasnoff, Griffith, Freier, & Murray, 1992; Frank et al., 2006; Hurt, et al., 1995; Hurt, Malmud, Betancourt, Brodsky, & Giannetta, 1997; Malakoff, Mayes, & Schottenfeld, 1994; Richardson, Conroy, & Day, 1996) as there are of detrimental effects and relationships tend to disappear when sociodemographic and environmental variables (e.g., polydrug use, prenatal care) are considered or when masked assessment occurs.

Longitudinal studies have found that any differences between infants exposed to cocaine and control groups tend to disappear as the children get older (Arendt, et al., 2004; Chasnoff et al., 1998; Chasnoff, et al., 1992; Griffith, et al., 1994; Marques, Pokorni, Long, & Teti, 2007; Mayes, 1992). A 1998 review of 76 studies, that included children up to the age of 4 years, failed to identify any consistent pattern of developmental dysfunction in cocaine-exposed children, noting that early reports on the effects of cocaine were exaggerated (Lester, et al., 1998). Despite functioning in the average range for intellectual and adaptive skills, cocaine-exposed children were often noted to experience problems with attention, language comprehension, and emotional/behavioural regulation (Lester, et al., 1998). Frank, Augustyn, Knight, Pell, and Zuckerman (2001) reviewed the outcomes of 36 studies that controlled for other drug use and included a control group, masked assessment, and prospective recruitment. They found little evidence of developmental problems in cocaine-exposed children up to the age of 6 years (Frank, et al., 2001).

Amphetamine-type stimulants.

The pharmacologic effects of amphetamine-type stimulants (ATS) are similar to cocaine (Bays, 1990) but of a longer duration (Rawson et al., 2000), with methamphetamine being the most potent of the ATS (Martin, 1992). To date, what we know about the use of ATS during pregnancy is extrapolated from animal studies and the cocaine literature, as there are few human studies available and they tend to have serious methodological problems (Wouldes, LaGasse, Sheridan, & Lester, 2004). Data from animal studies and clinical accounts of exposed children indicate a critical need to obtain empirical data concerning children who are exposed to ATS

(Smeriglio & Wilcox, 1999). Like cocaine, ATS can interfere with eating and sleeping, which has implications for maternal and foetal health (Murphy & Rosenbaum, 1999). There is currently insufficient evidence regarding the effect of ATS on the developing foetus, however, given that ATS cross the placenta and can produce long-term effects in the brains of adult users, it is reasonable to expect consequences for the developing foetus (Middaugh, 1989).

Neonatal Abstinence Syndrome.

Some withdrawal symptoms have been reported following prenatal exposure to methamphetamine (Smith et al., 2003). In a study of 134 neonates exposed to methamphetamine, 49% experienced symptoms of withdrawal during the first 3 days, however, only 4% required pharmacological intervention (Smith, et al., 2003). An examination of 74 infants exposed in-utero to methamphetamine found that heavy methamphetamine use was associated with lower arousal, increased lethargy, and elevated physiological stress (Smith et al., 2008). Methamphetamine use during the first trimester was related to elevated stress abstinence, whereas third trimester methamphetamine use was linked to poorer quality of movement (Smith, et al., 2008). Despite these subtle neurobehavioural findings, Smith et al. (2008) were unable to identify any consistent pattern of findings associated with methamphetamine exposure. Further research is required to determine whether prenatal exposure to ATS produces NAS and the above study points to the importance of considering dosage and trimester related effects.

Developmental outcomes.

Compared to cocaine-exposed infants, those exposed to methamphetamine tend to be less impaired during their first year, and development is usually within the normal limits by 12 months of age (Dixon, 1989). To date, the only longitudinal study of children prenatally exposed to ATS (N=65) was conducted in Sweden by Eriksson and colleagues who found that, when assessed at 4 years of age, the IQs, and general health and growth of children prenatally exposed to ATS was within the normal range (Billing, Eriksson, Steneroth, & Zetterstrom, 1985). At 8 years of age, children exposed to ATS throughout pregnancy were found to be more aggressive and to have more social problems than those who were exposed only during the first trimester (Eriksson, Billing, Steneroth, & Zetterstrom, 1989). However, maternal alcohol use and psychiatric treatment were also correlated with poor outcomes making it difficult to isolate the effects of ATS (Billing, Eriksson, Jonsson, Steneroth, & Zetterstrom, 1994). At 14-year follow-up, deficits in school achievement, and physical fitness and stature, were observed amongst the children prenatally exposed to amphetamines (Cernerud, Eriksson, Jonsson, Steneroth, & Zetterstrom, 1996). This

research has been criticised on a number of grounds, including the lack of a control group, within-group differences in prenatal care, polydrug exposure, widely varying patterns of drug use, and a failure to control for many other factors. Thirty percent of the mothers also used heroin and over 80% used alcohol, including 17% who were alcohol dependent. Hence it is difficult to attribute long-term outcomes to prenatal exposure to ATS. These children were also exposed to high levels of criminality and frequent changes in caregiver, with only 14 of the 65 children remaining in the continuous care of their mother by the age of 14 years. Longitudinal research that minimises these confounding variables to clarify the effects of exposure to ATS is required.

Cannabis.

The use of cannabis during pregnancy is more prevalent than the use of other drugs, accounting for some 75% of prenatal exposure to illegal drugs (Ebrahim & Gfroerer, 2003). Between 3% and 34% of American women are reported to have used cannabis, depending on the sociodemographics of the population under examination (Day & Richardson, 1991; Fried, 1996; National Institute on Drug Abuse [NIDA], 1996; Tennes et al., 1985). Whereas most women report a reduction in their use of cannabis during pregnancy (Fried, Watkinson, Grant, & Knights, 1980; Goldschmidt, Day, & Richardson, 2000; Tennes, et al., 1985) those who use cannabis on a daily basis are less likely to change their pattern of use. Day and Richardson (1991) found that 70% of daily cannabis users maintained daily cannabis use throughout the first trimester of pregnancy and 22% used cannabis every day throughout pregnancy. Fried et al. (1985) compared prenatal use of cannabis, alcohol, and tobacco, and found that pregnant women who were heavy cannabis users (defined as >5 joints per week) were more likely to reduce their use of tobacco and alcohol during pregnancy than their use of cannabis. Daily users were also more likely to return to pre-pregnancy levels of cannabis use within a year following birth. This might be because the harmful effects of using alcohol and tobacco during pregnancy have been the focus of public health campaigns, whereas little attention has been directed towards encouraging women to reduce their use of cannabis when pregnant (Fried, et al., 1985).

Women who use cannabis more heavily during pregnancy tend to be those who are also at risk for poor outcomes due to other factors, such as lower education and using more alcohol, tobacco, and other illegal drugs (Goldschmidt, et al., 2000). Research indicates that the placenta offers some protection from the effects of cannabis because foetal levels of THC are much lower than the mother's levels (Abel, 1980; Bloch, Thysen, Morrill, Gardner, & Fujimoto, 1978). Nonetheless, a single dose of THC can remain in the bloodstream for up to 30 days, prolonging

foetal exposure (Zilberman & Blume, 2005; Zuckerman & Frank, 1992b). As with tobacco, the smoking of cannabis potentially affects the foetus indirectly through the effects of reduced oxygen and increased carbon monoxide in the mother's bloodstream, as well as through any direct effects on the developing brain (Young, 1997).

Neonatal Abstinence Syndrome.

Fried and Makin (1987) found that infants exposed to cannabis in-utero demonstrated exaggerated startle responses and increased irritability, however, these symptoms were not accompanied by other signs of NAS. Reports of inconsistent subtle neurobehavioural outcomes, (e.g., poorer visual processing, abnormal reflexes, increased tremors and startles, altered cries) have been found by some researchers (Barros et al., 2006; Fried, 1980, 1982; Fried, Watkinson, Dillon, & Dulberg, 1987; Lester & Dreher, 1989; Tansley, Fried, & Mount, 1986) whereas others have failed to detect behavioural outcomes in cannabis-exposed neonates (Dreher, Nugent, & Hudgins, 1994; Hayes, Dreher, & Nugent, 1988; Richardson, Day, & Taylor, 1989; Tennes, et al., 1985). Research conducted amongst cannabis users in Jamaica found no evidence of neurobehavioral alterations in infants at 1 and 3 days (Dreher, 1997; Hayes, et al., 1988). In fact, at 1 month of age, cannabis-exposed infants (who were also exposed through breast-feeding) were less irritable, more alert, had better motor responses, more organised sleep-wake cycles, and were more socially able than non-exposed infants (Dreher, 1997; Dreher, et al., 1994; Hayes, et al., 1988). For heavily exposed infants, whose mothers were daily cannabis users (smoking between 21 and 70 joints per week) all neurobehavioural measures (including startles, tremors, alertness, endurance, irritability, and consolability) were rated significantly better than for non-exposed infants (Dreher, 1997). These findings were interpreted in terms of the acquired positive social value that cannabis use attains amongst this population of Jamaican women, who smoke cannabis legitimately for religious reasons, as well as to relieve nausea, increase appetite, promote rest, and provide psychological comfort during pregnancy (Dreher, et al., 1994). This differs widely from cannabis use by pregnant women in Western countries where it is often associated with poverty, deviancy, and a polydrug using lifestyle. Jamaican studies indicate that maternal use of cannabis might be beneficial to infants or that any adverse effects of prenatal cannabis exposure can be attenuated by other factors in the maternal caregiving environment.

Developmental outcomes.

Despite its widespread use, there is a paucity of empirical research examining the prenatal effects of cannabis use but when factors such as alcohol and tobacco use are accounted for, there

is no clear evidence linking prenatal cannabis exposure to reduced growth, prematurity, or miscarriage (Phillips, 2004). The Ottawa Prenatal Prospective Study (OPPS) conducted by Fried and his colleagues is one of two longitudinal studies that have followed children of cannabis users into their school years. At 4-year follow-up, this study consisted of 130 predominantly middle-class Caucasian women who had used cannabis during pregnancy (Fried & Watkinson, 1990). Three levels of cannabis exposure were examined: light users ($n=101$) smoked less than 1 joint per week, moderate users ($n=10$) smoked between 1 and 6 joints per week, and heavy users ($n=19$) were defined as those who smoked 6 or more joints per week (i.e., daily or near daily use). A control group of 50 women who drank little alcohol and did not smoke cigarettes was included. No effects were found for light or moderate cannabis use, but at 4 years of age, children prenatally exposed to heavy cannabis use displayed subtle cognitive deficits which were not apparent during earlier testing (Fried & Watkinson, 1988, 1990) but are consistent with other studies (Day et al., 1994; Griffith, et al., 1994). Using global measures of intelligence, Barr, Sampson, Darby, and Martin (1989) failed to find evidence of developmental or cognitive impairment in 4-year-olds exposed to cannabis. Faden and Graubard (2000) reported increased fearfulness, less play, and poorer motor skills amongst 3-year-old children prenatally exposed to cannabis. Taken together, these findings suggest that prenatal exposure to cannabis might produce subtle effects on cognitive functioning that are not apparent until children reach their preschool years, and when complex behaviour is examined at a more specific, rather than global level (Fried, 1996).

In following up the OPPS cohort at 5 and 6 years of age, maternal cannabis use was not associated with deficits on global cognitive skills, and previous impairments were no longer present (Fried, 1996; Fried, O'Connell, & Watkinson, 1992a). The fact that improvements were made by cannabis-exposed children but not by non-exposed children, suggests that school attendance allowed exposed children to catch up with their peers (Fried, 1996). At 6 years of age, impulse control and sustained attention were examined in the OPPS children. Children in the heavily exposed group showed increased omission errors (i.e., child misses the stimulus or fails to respond) on a vigilance task, which can indicate attentional difficulties (Fried, Watkinson, & Gray, 1992b). Parental reports obtained at this age also suggested the possibility of greater behavioural problems amongst heavily exposed children, especially in the area of conduct and inattention (Fried, et al., 1998). However, it was not clear whether these reports represented a real increase in problems or whether the mothers in this group were less tolerant. Furthermore, ongoing drug use was not controlled and those who used cannabis heavily during pregnancy were more likely to

have continued their drug use. Leech et al. (1999) also examined attention and impulsivity in 6-year-olds exposed to cannabis, and found that cannabis-exposed children made more errors of commission, indicative of impulsive responding. However, contrary to Fried et al. (1992b) they found that cannabis-exposed children made fewer, rather than more, errors of omission on a vigilance task, and this was attributed to impulsive responding rather than attentional problems. These findings, being of an opposite pattern to those of Fried and his colleagues, indicate the need for further research.

During testing of the OPPS cohort at 6 to 9 years of age, and consistent with previous testing, behaviour problems and deficits in visual-perceptual and visual-memory tasks, language, and distractibility were identified amongst children exposed to cannabis (O'Connell & Fried, 1991). However, when other variables, including the mother's age, her personality, and factors related to the home environment (e.g., greater aggression, less supervision) were taken into consideration, discriminating variables were no longer significant, making it difficult to determine the contribution of prenatal cannabis exposure. In testing at 9 to 12 years of age, deficits in goal-oriented problem-solving and impulse control were identified (Fried, et al., 1998) together with deficits in complex visuoperceptual skills (Fried & Watkinson, 2000). These trends persisted when confounding variables (including current cannabis use and prenatal exposure to alcohol and cigarettes) were controlled. During follow-up at 13 to 16 years of age, aspects of attention were tested, and it was found that those exposed to more than five joints per week had difficulty sustaining their attention over time (Fried & Watkinson, 2001). Hence, a dose-response relationship was purported to exist. Fried and his colleagues concluded that prenatal exposure to cannabis has directly but subtly affected these children's cognitive abilities.

Deficits in self-regulatory abilities (presenting as behavioural problems) together with lower scores on abstract/visual reasoning tasks, aspects of language and memory, and tasks that require sustained attention, are consistent with deficits in executive function (Fried, et al., 1998). As most intelligence tests evaluate crystallised intelligence (i.e., knowledge) rather than fluid intelligence (i.e., problem-solving abilities), deficits in executive functioning are consistent with global intelligence scores being in the normal range (Denckla, 1996; Duncan, Burgess, & Emslie, 1995a). Fried and his colleagues have suggested that children exposed prenatally to cannabis might have deficits in prefrontal lobe functioning, specifically in terms of visual analysis, visual hypothesis testing, and impulse control (Fried, 2002). The OPPS research indicates that there are distinctly different cognitive outcomes for those exposed in-utero to tobacco versus cannabis. Tobacco is

associated with deficits in global intelligence, especially in the verbal domain, whereas cannabis affects higher order cognitive processes (i.e., executive functioning) (Fried, 2002; Fried, et al., 1998).

Findings from the OPPS cohort are supported by results from the Maternal Health Practices and Child Development (MHPCD) study, which has followed children prenatally exposed to cannabis beyond their tenth year (Goldschmidt, et al., 2000). Strengths of the MHPCD study include a large sample, high retention rates, and the use of multiple assessment measures, including ratings by teachers, observers, and parents. Furthermore, a great deal of information regarding the child's environment, sociodemographics, and maternal psychosocial status, including current drug use, was obtained, allowing for statistical control of potentially confounding variables (Goldschmidt, et al., 2000).

The 10-year follow-up study included data from 635 participant families of low socio-economic status and similar numbers of Caucasians (47%) and African-Americans (53%). Forty-one percent (41%) of the sample (n= 259) reported using cannabis during the first trimester of pregnancy, with 19% (n=121) using cannabis throughout pregnancy. Only 22% of the women continued to smoke cannabis at the 10-year follow-up (Goldschmidt, et al., 2000). At 10 years of age, children in the MHPCD study who were exposed to cannabis during the first and third trimesters were rated significantly higher in terms of hyperactivity, inattention, and impulsivity (i.e., symptoms of ADHD) as rated by the primary caregiver. There were also significant relationships between prenatal cannabis exposure and delinquent behaviour, as measured by the Teacher's Report Form (TRF, Achenbach, 1991b) and the Child Behavior Checklist (CBCL, Achenbach, 1991a) completed by mothers. There was a consistent overall relationship between delinquency and prenatal exposure to cannabis, with exposure during the second and third trimester of pregnancy predicting poorer outcomes, suggesting an effect that was related to being more heavily exposed throughout pregnancy (Goldschmidt, et al., 2000). Inattention symptoms mediated the relationship between prenatal exposure to cannabis and delinquency. Given that Goldschmidt et al. (2000) controlled for maternal depression, home environment, and exposure to other drugs, these findings suggest that prenatal exposure to cannabis is directly related to behavioural problems in exposed children. Nonetheless, replication of these findings amongst a cohort of a higher SES is desirable, and it will also be important to examine variables such as parenting style, levels of supervision, and parental attentional deficits.

Day and Richardson (1991) concluded that the relationship between birth outcomes and cannabis use is equivocal, and that long-term studies have not yet provided conclusive information about cannabis exposure and child development outcomes. Dalterio and Fried (1992) suggested that conflicting findings between neonatal observations and long-term follow-up studies might indicate that the effects of in-utero exposure to cannabis are transitory. Alternatively, subtle effects might not become apparent until the child is older and faced with the cognitive demands of school performance (Dalterio & Fried, 1992). Follow-up studies of school-aged children by the OPPS and the MHPCD lend support to the latter hypothesis, and point to the impact of prenatal cannabis exposure on aspects of executive functioning, specifically attention and visual analysis/hypothesis testing (Fried, 2002; Fried & Smith, 2001). Given that areas of the forebrain contain major receptor sites for cannabinoids, and the forebrain is associated with higher order (executive) functioning, the possibility that gestational cannabis use affects executive functioning warrants additional research. In any case, prenatal cannabis exposure does not appear to impact on global IQ scores (Martin & Dombrowski, 2008) nor does it seem to cause serious birth complications or defects and abstinence symptoms do not appear to be a major problem for exposed infants. Nonetheless, additional longitudinal research is necessary before firm conclusions can be drawn concerning subtle effects on executive function. Such research is important given that executive functioning affects the capacity for problem-solving, sustained attention, and the ability to inhibit inappropriate responding.

Discussion and conclusions.

Although there is extensive evidence that the use of alcohol can have devastating effects on unborn children, exposure to other drugs seems to produce more subtle effects, and the ability of illegal drugs to cause congenital birth defects and cognitive deficits has not yet been reliably demonstrated. The extent to which the use of illegal drugs during pregnancy impacts on the development of unborn children remains largely unknown but the majority of births associated with drug use are unremarkable. Evidence for adverse effects is limited and uncertain, although most studies examining prenatal exposure to illegal drugs have found that such infants are smaller, more likely to be born prematurely, and are often initially difficult to care for. Many factors, including the timing, quantity, and types of drugs used, as well as covariates, including poverty, poor nutrition, and a lack of medical care, make it difficult to establish a clear picture of outcomes for prenatally exposed infants. Well-planned longitudinal research is required, particularly to examine the prenatal effects of cannabis and ATS on child development. Among

women of childbearing age in Australia, these are two of the most widely used illegal drugs, yet very little is known about any long-term effects posed to unborn children. Preliminary findings about prenatal exposure to cannabis indicate that it might have long-term implications for a child's behaviour, particularly in terms of problems associated with executive functioning.

The relationship between perinatal factors and neurodevelopmental outcomes is most apparent during the first year of life, with subsequent variations in outcome being strongly influenced by social and environmental factors (Bee et al., 1982). During the first two years of life, perhaps the greatest threat to development lies in the way that drug use can interfere with a child's relationship to his or her primary caregiver (Perry, 2009). Many researchers have noted that the effects of prenatal exposure to drugs can be overcome with appropriate support, such as parent training, adequate nutrition, AOD treatment, and a safe environment (Scherling, 1994; Topley, Windsor, & Williams, 2007). Although research has focused on the effects of prenatal exposure to drugs (Phillips, 2004) much of this research points to the importance of the postnatal caregiving environment and the influence that ongoing parental drug use might have on parenting capacity, family functioning, and developmental outcomes for children.

The Effects of Ongoing Parental Drug Use

The continued use of drugs by parents following the birth of a child is a crucial factor in the development of children, mitigating or exacerbating any effects of prenatal exposure to drugs (Coles & Platzman, 1993; Lifschitz, et al., 1985; Scherling, 1994). Children who have been exposed to drugs before birth are at a high risk of being raised by individuals whose ability to function effectively as parents is compromised (Hans, 1989). Estimates of how many Australian children live with a parent that is misusing drugs or alcohol can only be inferred from other data sets (Dawe, Harnett, & Frye, 2008) but best estimates suggest that approximately 10% of children live in a home in which a parent is misusing alcohol or other drugs (Copeland, 2006; Dawe, et al., 2008). Children are more likely to be affected by their parents' ongoing use of drugs than by prenatal exposure (Larsson, 1980; Richardson, et al., 1993; Schuler, Nair, & Kettinger, 2003; Young, 1997) however, the use of illegal drugs does not constitute "prima facie evidence of parental incompetence" (Barnard & McKeganey, 2004; Mayes & Sean, 2002; McMahon & Luthar, 1998, p. 151). Outcomes for children are extremely variable and depend on a wide range of factors (Gorin, 2004) and many children experience family environments that are supportive and functional irrespective of their parents' drug use (Hogan & Higgins, 2001). Nonetheless, child protection workers tend to respond more strongly to a parent's use of illegal drugs than to the

misuse of alcohol (Forrester, 2000; Phillips, 2004). In either case, children are more likely to be affected by their parent's drug use when it occurs in the context of chronic or multiple problems at home (Gorin, 2004; Horgan, 2011).

Children have the best chance of reaching their full potential if they are raised in an environment that consistently provides enriched and stimulating interactions in a context of attentive and nurturing relationships (Perry, 2004, 2005, 2009). The use of illegal drugs by a parent, hinders their ability to provide consistent parenting and the longer such drug use continues the more likely it is to adversely affect cognitive, developmental, and educational outcomes of the children of drug users (Horgan, 2011). Parent-child interactions are likely to be different depending on whether a parent is intoxicated, sober, or withdrawing from drugs (Griffith, 1992). Infancy is a high risk period for experiencing harm associated with problem drug use by parents (Corbett, 2005; Perry, 2009). Harmful outcomes for children can be a consequence of a parent's drug induced mental state and behaviour or the physical environment and social context in which use occurs (Klee, 1998; Mayes & Sean, 2002). Drug and alcohol use can affect a person's capacity to parent in much the same way as mental health problems can, by affecting parental perceptions, judgements, decision-making, parenting skills, attention, emotional regulation, attachment, and separations from the child (Advisory Council on the Misuse of Drugs, 2003; Cleaver, et al., 2011; Mayes & Sean, 2002). Family life and family dynamics can be adversely affected, as well as discipline, boundary setting, communication, and the general provision of reliable and consistent care (Harbin & Murphy, 2000; Kroll & Taylor, 2003; Magura & Laudet, 1996; Tyler, Howard, Espinosa, & Doakes, 1997; Velleman, 2009). Parental drug use can contribute to adverse outcomes for children through various mechanisms, including: exposure to drug-related violence; child abuse or neglect; parents driving when drug-affected; or parents spending money on drugs instead of paying rent or buying groceries (Velleman, 2009).

Although few studies have considered paternal drug use (Horgan, 2011) findings suggest that children are more likely to be adversely affected by maternal drug use than by their father's use of drugs (Brook, Tseng, & Cohen, 1996; Kandel, 1990; Kumpfer & DeMarsh, 1986) and the most severe outcomes occur when a child is raised with a single parent who has a long history of problematic drug use (Gruenert, Ratnam, & Tsantefsi, 2004). Mothers traditionally take on the role of primary caregiver, so maternal drug use is more likely to compromise the care of children. Nonetheless, the impact of a partner's drug use can contribute to psychological distress in mothers and affective disorders in their children (Greco-Vigorito, Drucker, Moore-Russell, &

Avaltroni, 1996). Poorer outcomes, including greater levels of family disengagement, have been found in families where both parents present with problematic drug use (Cleaver, et al., 2011; Luthar, Merikangas, & Rounsaville, 1993; Merikangas, et al., 1998a; Merikangas, Rounsaville, & Prusoff, 1992). Children are more likely to be deprived of responsible parenting when both parents are drug dependent (Kumpfer & DeMarsh, 1986; Magura & Laudet, 1996). Hence, it is important to consider the functioning of each parent.

The majority of literature pertains to maternal drug use, and there is a need for more research about the influence of paternal drug use. In the few studies that have considered paternal drug use, higher rates of conduct and socialisation problems (House of Representatives Standing Committee on Family and Human Services, 2007; Moss, Majumder, & Vanyukov, 1994), anxiety disorders (Gossop, 2007), inattention, impulsivity, and aggressivity (Martin et al., 1994) have been noted. Ornoy et al. (1996) found higher rates of neurological impairment in children born to heroin-using fathers than in children born to heroin-using mothers. Therefore, a child's behaviour is likely to be adversely affected by the presence of a father with problem drug use. Furthermore, individuals tend to choose partners with similar drug use preferences to themselves (Homish, Leonard, & Cornelius, 2007; Hopfer, Stallings, Hewitt, & Crowley, 2003; McLeod, 1993). Hence, when one parent is found to be using illegal drugs, both parents are likely to be doing so, thereby increasing the likelihood that their children will also develop problematic patterns of drug use (Merikangas, et al., 1992).

Richardson et al. (1993) argued that adverse outcomes are associated with drug -using lifestyles, rather than any unique effects of particular drugs. Nonetheless, parenting might not be equally impaired by different types of drugs (Famularo, Kinscherff, & Fenton, 1992). Heroin, benzodiazepine, and alcohol tend to cause depressed mood, drowsiness, and impaired concentration, which increase the risks that a parent will fail to provide appropriate supervision whereas ATS and cocaine are associated with increased activity levels, agitation, and impaired judgement, as well as the risk of delusional beliefs and psychotic episodes (Dawe, et al., 2008). Hence, stimulant use increases the risk of violent or aggressive behaviour. Lifestyles associated with specific types of drugs are also likely to vary, with some patterns of drug use more likely to encompass criminal activity than others (Hogan, 1998). Therefore, it is not appropriate to generalise from parents with problematic heroin use, for example, to those who misuse cannabis, as it is not clear that parental lifestyle and functioning are equally compromised. In reviewing the literature a number of themes emerged that influence outcomes for children. Important drug-

related variables are discussed below including the level of ongoing drug involvement, the type of drug, and the way it is used. Parenting variables, including attachment, parenting attitudes, parenting behaviours, social support, and social development are also discussed as these are critical to child development irrespective of drug use.

Confounding factors.

Any examination of the effects of parental drug use is complicated by known associations between drug use and various confounding variables, including poverty, chaotic lifestyle, domestic violence, mental illness, and criminal involvement. Exposure to violence is one of the most significant variables affecting the wellbeing of children and when violence is coupled with other factors, such as drug use, mental health problems or criminal behaviour, the risk of harm to children is further increased (Kroll & Taylor, 2003). Therefore, when considering the effects of parental drug use, examination of these factors is important because these variables contribute to poor outcomes in their own right, increasing the risk of adverse developmental outcomes for children (Mayes & Sean, 2002).

Poverty.

Uncontrolled patterns of drug use can affect a family adversely by impacting on their financial position and thus their living standards (Cleaver, et al., 2011; McKeganey, et al., 2002). Payment of rent and essential household bills can be sacrificed to sustain excessive drinking or drug use by a parent (Velleman, 1996). Studies of the effects of maternal drug use have tended to draw on samples characterised by high levels of poverty that usually predates drug use (Dawe, et al., 2006; Mayes & Sean, 2002). The disadvantage associated with poverty influences the home environment, family structure, parenting, childcare, and access to resources, making it the single most important predictor of poor developmental outcomes for children (Felner, 2006; Huston, McLoyd, & Coll, 1994; McLoyd, 1998). By the age of 2 years children who live in poverty tend to be developmentally delayed compared to children of higher SES (Zuckerman & Frank, 1992a). Furthermore, children with cognitive delay associated with low birth weight fail to experience developmental recovery when they are raised in families from lower socioeconomic backgrounds, whereas others tend to make greater postnatal gains (Ornoy, et al., 1996). The social deprivation associated with poverty is widely regarded as the major issue affecting drug-using women and their children.

Although maternal drug use occurs across all social classes (Chasnoff, et al., 1990; Feig, 1998) a higher proportion of illegal drug use is found amongst impoverished populations (Dawe, et

al., 2006; Spooner & Hetherington, 2004). Specific stressors associated with poverty include housing instability, poor health care, inadequate nutrition, and community violence, all of which adversely affect developmental outcomes of children (Huston, et al., 1994). Many drug users have limited work experience and limited access to jobs and child care (Inciardi, et al., 1997). Hence, there are high rates of poverty and unemployment amongst drug-using parents, who are often single mothers (Spooner & Hetherington, 2004). For example, 80% of the drug-using mothers interviewed by Murphy and Rosenbaum (1999) relied on public assistance. Such low incomes are often insufficient to meet daily living expenses, never mind the costs associated with illegal drug use, so drug dependent women often resort to criminal activities, including shoplifting, sex work, and drug dealing (Murphy & Rosenbaum, 1999). Poverty is often associated with an accumulation and compounding of disadvantage and cumulative stress over time (Dawe, et al., 2006) which can diminish the capacity of some parents to provide supportive, consistent, and involved parenting (Dawe, et al., 2008; Marmot, 1999; Mayes & Sean, 2002; McLoyd, 1998; Sampson & Laub, 1994; Whitbeck et al., 1997).

The adverse effects of low SES on physical and mental health, including drug misuse, is well established (Repetti, Taylor, & Seeman, 2002). Ornoy, et al. (1996) compared children born to heroin dependent mothers or fathers with children from environmentally deprived backgrounds and children from higher SES families. They found that children from families with problematic heroin use had high rates of hyperactivity, impulsivity, inattention, and behavioural problems (ADHD symptoms) however, they found that children from deprived backgrounds (without parental drug use) fared significantly worse on such measures. Furthermore, children born to heroin dependent mothers but who were adopted during infancy had normal cognitive development and much lower rates (20% compared with 74%) of ADHD-type symptoms compared to those who remained in the care of their parents (Ornoy, et al., 1996). Whereas the high rates of ADHD found amongst these adopted children indicate that in-utero exposure to heroin might predispose a child to ADHD, the provision of an enriched post-natal environment ameliorated such outcomes. These findings imply that the qualities inherent in the physical and psychological environment play a critical role in child development and that parental use of illegal drugs is simply one of many factors that can jeopardise outcomes for children. Other studies (i.e., Beckwith, et al., 1994; Kandel, 1990; Wilens, Biederman, Kiely, Bredin, & Spencer, 1995) have reached similar conclusions about the influence of parental drug use on children's development.

Chaotic lifestyle.

While drug use can affect parenting capacity directly through its influence on mental states and judgement, it can also exert its effects indirectly as a consequence of the parents' lifestyle or adverse social environment (Coleman & Cassell, 1995; Kroll & Taylor, 2003). Drug dependency is a chronic, relapsing condition in which illness, arrest, the development of a crisis, and/or the escalation of drug use can see the life of a drug user degenerate rapidly from a position of apparent stability (Corbett, 2005; Hogan & Higgins, 2001). Similar to that of other impoverished populations, the chaotic family environment of many drug-using families is characterised by frequent changes of dwelling, minimal involvement of the father, increased foster care, fewer resources, and low levels of income (Free, et al., 1990; Hawley, et al., 1995; McKeganey, et al., 2002). Risks for children are increased when there are frequent changes of accommodation, when there is an absence of routines, and when children are left in the care of unsuitable people (Kroll & Taylor, 2003).

Drug-using parents often have a strong awareness of their shifting ability to manage their parental responsibilities. The disruption of day-to-day family life caused by parental drug use can interfere with family routines, including seeing to regular meals, bedtimes, and school attendance (Hogan & Higgins, 2001). Some find it difficult to provide stable housing and extended family is often critical in terms of assisting with the care of children. For example, parental heroin use is associated with financial instability and disruptions to the physical care of children, including prolonged absences due to residential treatment, hospitalisation, or imprisonment (Hogan & Higgins, 2001). Such disruptions can be detrimental to parent-child relationships and difficult behaviour is likely to occur when a child views his or her parent as unpredictable (Sroufe, 1988). Hence, a parent's drug problems can create a chaotic environment that can influence child behaviour in a number of ways.

Criminal involvement.

Compared to the use of alcohol, parents who use illegal drugs often spend much more time and money procuring their drugs and tend to have greater rates of involvement with other illegal activities (Boyd & Mieczkowski, 1990; Hogan, 1998; Sowder & Burt, 1980b). Primary school age children of drug users have often seen their parents, relatives, and friends using and dealing in drugs and exposure to crime and its consequences is common (Advisory Council on the Misuse of Drugs, 2003; Hogan & Higgins, 2001; McKeganey, et al., 2002). Women who use illegal drugs often engage in sex work to supplement their incomes and support their drug use (Boyd & Mieczkowski,

1990; Copeland & Hall, 1992). Billing, Eriksson, Steneroth, and Zetterstrom (1988) found that paternal criminality contributed to poorer outcomes for children regardless of the amount of contact the child had with his or her father. In interviews with 70 parents in MMT, 80% of parents admitted to having been incarcerated at some stage since their first child was born (Kolar, Brown, Haertzen, & Michaelson, 1994) however, it is not clear whether treatment status was related to criminal status in this study. High rates of incarceration might not be typical of drug users who have not been mandated into treatment. However, when a parent is incarcerated the family experiences additional stress as a consequence of the separation and reduction in household income (Bays, 1990).

Hogan and Higgins (2001) conducted interviews with 50 families where one parent was dependent on opioids and 50 nondrug-using families from the same area, matched for SES. Amongst the opioid users 24% of drug-using parents reported having their child present during criminal acts compared with only 2% of non-using parents. Similarly, in the study group 58% of children had seen their parents searched by police compared with 2% of controls and 34% of children from drug-using families had visited a parent in prison compared with 4% of children from nondrug-using families. Parents were generally reluctant to tell their children that they had been imprisoned or why and their children were exposed to parental behaviour that included drug taking, dishonesty, and criminal behaviour, which might come to be viewed by the child as normal and legitimate activities. One potential problem with the Hogan and Higgins' study was that drug-using parents were recruited through drug treatment services and a prison. Whether parents were mandated to treatment was not reported but recruitment through a prison setting might have biased the sample toward families with greater legal problems compared with the nondrug-using families who were recruited through local school settings. If researchers are to generalise from their sample it is important to address such biases in sample selection.

Child abuse and neglect.

Prevalence data suggests that the majority of parents who use alcohol or other drugs do not abuse or neglect their children (Brisby, et al., 1997; Scannapieco & Connell-Carrick, 2007; Young, 1997). Indeed, a recent study by Hogan, Myers, and Elswick (2006) found that when demographic factors such as education level, race, and marital status were considered, mothers who used drugs during their pregnancy were at no more risk of child abuse than those who did not use drugs. Nonetheless, parental drug use is frequently cited as a major factor in child welfare cases (Hampton, Senatore, & Guillotta, 2002; Harbin & Murphy, 2000; Inciardi, et al., 1997; Jaudes,

Ekwo, & van Voorhis, 1995; Leek, Seneque, & Ward, 2004; Scannapieco & Connell-Carrick, 2007). According to 2003 statistics, AOD use was a major contributing factor in 57% of child neglect cases in WA, with rates being much higher among Aboriginal respondents (75%) than other populations (37%). Respondents in these cases tended to be polydrug users, experiencing high rates of other problems, especially domestic violence, and 78% of the children involved in these cases were removed from their parents' care (Leek, Seneque, & Ward, 2007).

In families with problem drug use, neglect (rather than abuse) is more likely to be the reason for child welfare reports (Corbett, 2005; Hans, 1989; Harbin & Murphy, 2000; Kroll & Taylor, 2003; Leek, et al., 2004; Walker, Zangrillo, & Smith, 1991; 1994). It has been suggested that the effects of neglect on children are more serious than abuse (Magura & Laudet, 1996) given that by definition it represents a pattern of failure over time to provide for the basic needs of a child, such as shelter, safety, supervision, and nutrition (Hans, 1989). The mechanisms through which drug use compromises parenting are poorly understood, however, research related to parental alcohol use and mental health problems suggests that the more preoccupied people are with meeting their own needs (including their drug needs) the less responsive they are likely to be to the needs of their children (Advisory Council on the Misuse of Drugs, 2003; Kumpfer, Olds, Alexander, Zucker, & Gary, 1998). When things become chaotic, meeting the physical, social, and emotional needs of children can conflict with the demands associated with parental drug use (Kumpfer & DeMarsh, 1986; Rosenbaum, 1979). Furthermore, drug-using parents often have expectations about their children that do not match the child's developmental status (Kumpfer & DeMarsh, 1986). In fact, from a very young age 'parentified' children often take on household responsibilities, such as cleaning, cooking, and caring for younger children (Feig, 1998; Kumpfer & DeMarsh, 1986). When children take on parental roles that they cannot handle this increases their vulnerability (as well as their siblings' vulnerability) to the development of psychological symptoms (Minuchin & Fishman, 1981). Hence, the psychological and physical unavailability associated with problem drug use can contribute to the emotional and physical neglect of a user's children (Feig, 1998; Hawley, et al., 1995).

Although child abuse or neglect can occur as a consequence of parental drug use, child abuse and neglect can also be a contributory factor in the development of problematic drug use (Feig, 1998). Many women who use illegal drugs come from family backgrounds in which emotional, physical, and sexual abuse, as well as parental drug and alcohol misuse, was common (Black & Mayer, 1980; Black, Mayer, & Zaklan, 1981; Boyd, 1993; Copeland & Hall, 1992; Davis,

1990; Kaltenbach, 1994; Ladwig & Anderson, 1989; Larsson, 1980; Murphy & Rosenbaum, 1999; Regan, Ehrlich, & Finnegan, 1987; Rohsenow, Corbett, & Devine, 1988; Root, 1989; Simpson & Miller, 2002). Histories that include physical or sexual abuse are reported by 40% to 85% of women in AOD treatment programs (Black & Mayer, 1980; Boyd, 1993; Cohen & Densen-Gerber, 1982; Copeland & Hall, 1992; Forth-Finegan, 1991; Kilpatrick, Resnick, Saunders, & Best, 1998). For example, in a survey of cocaine and heroin users Hagan (1988) found that 83% came from drug-misusing families of origin and 55% had experienced sexual abuse prior to age 16. Rates of childhood sexual abuse amongst women in AOD treatment are twice as high as those found in the general population (Finkelhor, Hotaling, Lewis, & Smith, 1990) and rates of childhood physical abuse are also high (MacMillan et al., 1997).

Fraser (1994) described families with problematic drug use as being characterised by shame, secrets, and abuse. Children from these families were more likely to have experienced sexual and physical abuse. Fraser argued that children from homes where parents were drug dependent experienced feelings of abandonment, shame, mistrust, hurt and betrayal. He argued that many individuals whose parents misuse drugs or alcohol experience post-traumatic stress disorder (PTSD) and eventually turn to drug use themselves to cope with PTSD symptoms, guilt, shame, and chronic depression (Fraser, 1994). Fraser viewed this as a major causative factor in the development of drug dependence. Hence, a pattern of intergenerational neglect and abuse often occurs (Magura & Laudet, 1996). Nonetheless, it is difficult to separate the contribution of co-occurring factors (such as poverty, unemployment, lack of social support, low education, and a parental history of child maltreatment) from the effects of drug use (Hogan, 1998) and it is important to remember that not all parents who use drugs neglect or abuse their children (Harrington, Dubowitz, Black, & Binder, 1995).

Violence.

In addition to having been abused as children, many women who use drugs experience continued exploitation and violence as adults (Copeland & Hall, 1992; McKeganey, et al., 2002; Murphy & Rosenbaum, 1999). Seventy percent (70%) of those interviewed by Murphy and Rosenbaum (1999) had been physically assaulted by a male partner in one or more relationships, with 45% being assaulted during pregnancy. Similarly, Regan, Ehrlich, and Finnegan (1987) noted that 70% of women in a methadone maintenance program had been beaten as adults, with 86% of these episodes involving the woman's partner at the time.

Family violence is strongly related to the misuse of alcohol (Corbett, 2005) and those directly affected have described the violence associated with their parents' drug use as the most significant problem they experienced (Kroll, 2004). Children have described being unable to discuss their concerns with outsiders due to loyalty to their parents, as well as fears related to being removed from their parent's care or their parent going to jail (Barnard & Barlow, 2003; Corbett, 2005; Kroll, 2004). Ongoing conflict between parents arouses negative affect in children and eventually sees them become desensitised to further disputes (Cummings, 1987). Furthermore, children of drug users tend to model the inappropriate conflict resolution skills and lack of anger management that occurs in their homes (Kumpfer & DeMarsh, 1986; Long & Forehand, 1987). A great deal of research has been conducted amongst crack cocaine users living in inner-city neighbourhoods in which community violence, including homicide, is a normal part of life that often sees children confined to their homes rather than spending their leisure hours outdoors (Osofsky & Fenichel, 1994). Exposure to violence makes it difficult to untangle the effects of parental drug use from the effects of living in a violent and unsafe environment. Problems are compounded in families affected by both domestic violence and problem drug use, and the wellbeing of children is severely compromised (Horgan, 2011).

Mental illness/comorbidity.

When mental health problems and drug use co-exist, as they frequently do, there is an increased risk of poor outcomes for children (Cleaver, et al., 2011; Dawe, et al., 2008). Comorbidity between drug use and other mental health problems is high (Mayes & Sean, 2002) with substance use disorders being twice as common amongst people with a psychiatric diagnosis than those without, and psychiatric disorders being three times more prevalent amongst people with a substance use disorder (Sinha & Schottenfeld, 2001). It has been suggested that emotional, mental, or personality disorders affect up to 90% of drug-misusing parents (Bays, 1990) potentially compromising their ability to care for their children. Australian statistics suggest that over 50% of heroin users, 20% of ATS users, and 16.5% of cannabis users have comorbid mental health problems (AIHW, 2005). Psychological problems including attentional, bipolar, anxiety, and personality disorders, as well as psychosis and organic brain disease caused by drug use have been noted (Calsyn & Saxon, 1988; Khantzian, 1985; Larsson, 1980; Nunes, Quitkin, & Klein, 1989; Ornoy, et al., 1996; Zuckerman, Amaro, & Beardslee, 1987). In this regard, it is important to recognise that women tend to use drugs for different reasons than men do. Whereas men often use drugs and alcohol for thrills or pleasure, women are more likely to use drugs for self-

medication purposes and to cope with situational factors (Inciardi, Lockwood, & Pottierger, 1993; Inciardi, et al., 1997; Klee, et al., 2001). A high incidence of depression and anxiety has been found among drug-using women and their families, whereas for drug-using men, antisocial behaviour (often leading to criminal prosecutions) is more common (Anthony & Helzer, 1991; Merikangas, et al., 1998a; Merikangas, et al., 1992; Mirin, Weiss, Griffin, & Michael, 1991).

Rates of comorbid psychopathology, particularly trauma-related conditions, are higher amongst women who use drugs than men (Conners et al., 2003; Najavits, Weiss, & Shaw, 1997). Furthermore, comorbid maternal psychopathology has been found to contribute to greater impairment in parenting interactions for women who use drugs compared to non-drug users and drug users without comorbid psychiatric disturbances (Mayes & Bornstein, 1995). In women, depression tends to precede drug use (Inciardi, et al., 1997) and PTSD rates are high (Fraser, 1994; Najavits, et al., 1997) reflecting histories that often involve sexual abuse and other childhood trauma (Boyd, 1993; Kaltenbach, 1994; Rohsenow, et al., 1988; Root, 1989). Women who misuse drugs have typically been noted to have low self-esteem, and higher rates of anger, guilt, aggression, and irritability (Chavkin, Paone, Friedmann, & Wilets, 1993). Drug-using mothers also exhibit high rates of depression, both pre-existing and residual to drug use. For example, between 50% and 90% of mothers who used cocaine displayed clinical levels of depression (Boyd, 1993; Frank et al., 1988; Woods, Eyler, Behnke, & Conlon, 1993). The relationship between maternal depression and psychopathology, especially depression, in children is well documented (Beardslee, Versage, & Gladstone, 1998; Brennan et al., 2000; Luoma et al., 2001; Luthar, et al., 1993).

Depressed mothers have been observed to be more hostile and irritable, less verbal, less affectionate, less responsive, and more inconsistent in their discipline than non-depressed mothers (Gorin, 2004; Lovejoy, Graczyk, O'Hare, & Neuman, 2000; Zuckerman & Beardslee, 1987). Their children have higher rates of behavioural problems, learning difficulties, and affect dysregulation (Zuckerman & Beardslee, 1987). Hence, it is important to consider the presence of comorbid mental health problems when assessing the effects of maternal drug use because comorbidity is common and children of drug users are at risk for developing similar psychopathology to their parents (Luthar, et al., 1993). Mounting evidence suggests that maternal psychopathology poses a greater problem in terms of parental capacity than drug use does (Beckwith, Howard, Espinosa, & Tyler, 1999; Hans, Bernstein, & Henson, 1999; Luthar, D'Avanzo, & Hites, 2003; Marques, et al., 2007) however, it is likely that the same genetic predisposition

underlies the expression of mental illness and drug dependence (WHO, 2004). A mother who is using drugs but is otherwise psychologically healthy might be capable of providing a 'good-enough' home environment (Dawe, et al., 2008) but for many, drug use might temporarily alleviate symptoms of a particular mental illness but contribute to its overall worsening across time (WHO, 2004). Hence, ceasing the use of drugs can, at least temporarily, precipitate or worsen the mental health of an individual and this has consequences when abstinence occurs in the context of caring for children.

Changes in primary caregiver.

Children from families in which illegal drug use occurs are more likely than other children to experience disruptions to maternal care (Copeland & Hall, 1992; Hans, 1989; Resnik, Gardner, & Rogers, 1998). For example, in one longitudinal study 70% of children prenatally exposed to amphetamines (N=65) were in foster care at 10-year follow-up (Eriksson & Zetterstrom, 1994). In a study by Wilson et al. (1981) differences were observed between heroin users, those on methadone, and a nondrug-using control group. When evaluated at preschool age 80% of children whose mothers used heroin were no longer living with their biological parent compared with 38% of children whose mothers had opted for MMT and only 5% of the control group. Children whose mothers were on MMT were significantly more likely to remain in their mother's care. Most of the methadone-maintained women were white whereas those who continued to use heroin were African-American (Wilson, et al., 1981). In the USA, African-American women and those on lower incomes are ten times more likely to be identified as drug users and reported to child protection authorities than white women despite similar rates of drug use (Chasnoff, et al., 1990). WA statistics also suggest that Australian Indigenous populations are over-represented in child welfare cases (Leek, et al., 2004; 2007). Therefore, children from 'black' families might be at a higher risk of removal from their parents' care. When considering child outcomes it is important to consider the effect of disrupted caregiving environments.

Maternal youth, IQ, and education.

Low educational attainment, troubled family backgrounds, and being a younger parent influence both parenting capacity and ongoing drug use (Advisory Council on the Misuse of Drugs, 2003). Problems of drug use are often compounded by the fact that mothers are young (immature) and have low levels of education (Murphy & Rosenbaum, 1999). For example, Murphy and Rosenbaum found that 51% of their sample (n=120) were aged below 18 years when their first child was born. A recent examination of 266 female problem drug users in Scotland found that

two-thirds had given birth to their first child as a teenager compared with a rate of one-third in deprived areas of the city and a rate of 4% in affluent areas (Advisory Council on the Misuse of Drugs, 2003).

In Hogan and Higgins' (2001) study of opioid users the average age at which parents left school was 14.8 years and 42% of the women Murphy and Rosenbaum interviewed did not complete high school. The intellectual functioning and vocabulary skills of mothers are important in determining outcomes for children (Arendt, et al., 2004; Bennett, Bendersky, & Lewis, 2002; Marques, et al., 2007). In fact, the mother's level of education is one of the best predictors of a child's later intellectual functioning (Bee, et al., 1982; Smith, Flick, Ferriss, & Sellman, 1974). Thus, to establish that educational outcomes for children of drug users are indeed drug-related it is important to control for factors such as maternal age, IQ, and level of education, as these are likely to influence outcomes for children via parental attitudes and behaviours. Furthermore, individuals who use drugs often remain developmentally 'stuck' at the age at which they commenced using (Kaltenbach & Finnegan, 1992b) hence, cognitive, psychological, educational, and vocational development is often delayed amongst children of drug users even when a mother is no longer in her youth.

Level of drug involvement.

Drug use occurs on a continuum that includes experimenters, social-recreational users, involved users, and dysfunctional drug 'abusers' (Inciardi, et al., 1997) and an individual's drug status can change over time (Fox & Mathews, 1992; Fried, et al., 1980; Goldschmidt, et al., 2000; Kandel & Davies, 1992; Tennes, et al., 1985; Wagner & Anthony, 2002). Nonetheless, 60% of women who used cocaine during pregnancy continued their drug use 6 years after delivery despite their involvement in an intensive drug treatment program (Chasnoff, et al., 1998). It might be that women who use illegal drugs when pregnant are more heavily involved in a drug-using lifestyle than other women who use drugs. In assessing any risk to children, it is important to consider factors such as whether the family home is used as a gathering place for drug users and whether children witness drug use, drug-related paraphernalia, or conversations about drug use (Hogan, 1998). Higher levels of drug use, drug seeking and involvement with a drug-related lifestyle are more likely to interfere with parenting than lower levels of drug involvement. For example, Arendt et al. (2004) noted that whereas cocaine use *per se* did not predict poor outcomes, when quantitative exposure data was available this suggested that higher levels of use did predict

poorer outcomes. According to Dishion et al. (1988) higher levels of drug use predict lower levels of supervision and involvement with children.

Kandel (1990) examined the association between parenting styles and previous or current drug use amongst 222 parent-child dyads. They expected that a history of drug use would be associated with low parental warmth and low monitoring, higher levels of conflict between parents, and more behavioural problems in children. However, few statistically significant relationships emerged, although it was noted that the more heavily a mother was involved with drugs, the more likely she was to report control problems with her children (Kandel, 1990). Higher levels of drug use were associated with more punitive disciplinary methods, lower levels of supervision, less discussion and positive interactions with the child, and higher levels of parental disagreement about discipline. Increasing levels of drug use are also associated with poverty, low educational attainment, troubled family backgrounds, reduced social support, and being a younger parent (Advisory Council on the Misuse of Drugs, 2003). These factors, in turn, influence both parenting capacity and ongoing drug use. Therefore, it is important to consider the overall level of drug use and drug-seeking behaviour when assessing the effects of parental drug use on children.

Drug-specific risks.

Specific types of drugs might introduce additional lifestyle problems (such as those associated with the use of crack cocaine in the USA) differentially affecting parenting behaviour. It is therefore important to explore any unique patterns of parenting impairment associated with specific drugs that may be different to, or occur over and above, impairments generally found in 'dysfunctional' or disadvantaged families (Mayes & Bornstein, 1995; Mayes & Sean, 2002). An examination of child welfare research in the UK found that patterns of concern (e.g., violence, intoxication, neglect) were directly related to the particular type of drug that parents were using (Corbett, 2005). Different types of drugs will affect parenting in different ways depending on the amount and frequency of use (Mayes & Sean, 2002). Understanding specific behavioural outcomes for parents will help to identify any impact that their drug use might have on their children's development (Cleaver, et al., 2011; Johnson, 1991).

The intoxicating and side effects of particular drugs can contribute to the likelihood of poor outcomes for children (Mayes & Sean, 2002) especially if parents experience hallucinations, violence, or paranoia (Bays, 1990). Some drugs appear to induce greater risks of dependence and users experiencing withdrawal symptoms are at risk of behaving in unexpected ways, which impacts on their children and the way they engage with others, including social workers and

health professionals (Cleaver, et al., 2011). Furthermore, some types of drugs (e.g., ATS) or methods of administration (e.g., injecting drug use) are associated with increased health risks (Gossop, 2007). Although polydrug use is the norm very little is known about how the use of specific drugs might reduce or enhance the effects of exposure to other drugs (Merikangas, et al., 1998a). Each drug has its unique main effects but will affect different people in different ways (Cleaver, et al., 2011; Zinberg, 1984). Therefore, it is important to think about the specific effects of a person's drug use rather than to assume that all illegal drug use is equally problematic.

Heroin and methadone.

The use of opioids can produce a state of drowsiness that sees the user drift in and out of consciousness (NCETA, 2004), which seriously jeopardises the safety and emotional wellbeing of his or her children (Cleaver, et al., 2011). Similar to other sedative-hypnotic drugs (e.g., alcohol, barbiturates) the repeated administration of opioids produces a state of physical dependence which means that when drug use is discontinued a withdrawal syndrome occurs (Hutchings & Zmitrovich, 1995). To avoid onset of significant withdrawal symptoms heroin must be taken at regular intervals, usually every 4 to 6 hours (Hutchings & Zmitrovich, 1995) which means that heroin dependency tends to involve an overwhelming preoccupation with obtaining drugs or money for drugs. Oral methadone (when administered at optimum doses) has a longer half-life and can be taken once per day without inducing abstinence symptoms or euphoria (Hutchings & Zmitrovich, 1995). Hence, MMT often allows individuals to resume a more normal and productive life and is less likely to have a negative impact on a person's capacity to meet their parenting responsibilities.

Cocaine.

The effects of cocaine depend on the quantity and type of cocaine used, as well as patterns of use. Cocaine is a fast acting stimulant that provides a short-lived high, followed by a 'crash' that is known to produce severe depression and suicidal ideation (Gawin & Ellinwood, 1988; Jones, 1995; Nnadi, Olubansile, McCurtis, & Cadet, 2005). Acute effects at high doses include disinhibition, grandiosity, impaired judgement, impulsiveness, hypervigilance, hypersexuality, extreme psychomotor agitation, and compulsively repeated actions (Gawin & Ellinwood, 1988). Cocaine use also impacts on decision-making capacity (Stout, Busemeyer, Lin, Grant, & Bonson, 2004) and anxiety, hyperactivity, and irritability are associated with bingeing (Gawin & Ellinwood, 1988), a pattern of use which sees many users neglecting their need for sleep and food as well as their basic hygiene. Thus, heavy cocaine users often have severely compromised physical health.

Long-term effects of crack cocaine use can include severe depression, insomnia, fatigue, irritability, paranoia, anhedonia, memory problems, and malnutrition (Scherling, 1994). Furthermore, the tendency of crack users to engage in frequent, unprotected sex with multiple partners results in a high prevalence of sexually transmitted diseases (Inciardi, et al., 1997). Thus, cocaine use and its consequent effects on maternal health can severely compromise an individual's ability to provide adequate care and supervision of children. If cocaine is being used in the home, children might also be exposed to toxic levels of second hand smoke, which can produce myriad problems including crying, fever, diarrhoea and seizures in young children (Inciardi, et al., 1997). Breast-feeding can also be potentially dangerous to infants because concentrations of cocaine in breast milk can be 20 times higher than in the mother's bloodstream (Dickson et al., 1994) and can remain in the mother's breast milk for 48 hours after she last used (Chasnoff, Lewis, & Squires, 1987).

Amphetamine-type stimulants.

A high prevalence of mental health problems have been noted amongst users of ATS with anxiety, suicidal ideation, depression, and drug-induced psychosis being most common (Darke, Kaye, McKetin, & Duflou, 2008; Dawe & McKetin, 2004; Dyer & Cruickshank, 2005; Hall, Hando, Darke, & Ross, 1996; Kalechstein et al., 2000; Kamieniecki, Vincent, Allsop, & Lintzeris, 1998; Vincent, Shoobridge, Ask, Allsop, & Ali, 1999; Zweben et al., 2004). Symptoms can be direct effects of intoxication, can occur during withdrawal, or might relate to pre-existing disorders (Baker & Dawe, 2005). Irritability, paranoia, mood swings, difficulty in concentrating, and aggression are also common among amphetamine users (Topp, Day, & Degenhardt, 2003). A pattern of bingeing, which involves frequent consumption of ATS coupled with associated sleep deprivation puts users at increased risk of psychosis (Kall, 1997) and when parents lose contact with reality or have difficulty controlling their emotions it jeopardises the safety and emotional wellbeing of their children (Cleaver, et al., 2011).

Deficits in performance on neuropsychological tests by users of ATS have suggested that ATS (unlike heroin) are neurotoxic (Darke, Ross, Hando, Hall, & Degenhardt, 2000). At moderate doses complex decision-making can be impaired (Wickes, 1993) and with higher doses and long-term use, motor and cognitive performance deteriorates (Ornstein et al., 2000; Rogers et al., 1999; Simon et al., 2000). Hence, methamphetamine dependent individuals present as highly distractible, with concentration difficulties (Salo et al., 2002). Active methamphetamine users display deficits in mental flexibility, comprehension, and the manipulation of information (Simon

et al., 2002); deficits in memory and learning (Sim et al., 2002; Woods et al., 2005); concentration and attention (McKetin & Solowij, 1999; Sim, et al., 2002); and psychomotor speed and abstract thinking (Sim, et al., 2002; Simon, et al., 2002). Chronic use of methamphetamine results in diminished cognitive capacity, affective dysregulation, and impairments in the ability to control responses to environmental stimuli (Baicy & London, 2007). Studies of brain function in chronic methamphetamine users during sustained abstinence indicate that functional recovery is slow and sometimes incomplete (Baicy & London, 2007; Toomey et al., 2003; Volkow et al., 2001; Wang et al., 2004). Hence, chronic use of ATS, especially methamphetamine, can induce organic brain damage that compromises the ability to provide adequate care for children.

A relationship between ATS and aggression is well documented (Asnis & Smith, 1978; Ellinwood, 1971; Hall & Hando, 1994; Miczek & Tidey, 1989; Wright & Klee, 2001). Violent behaviour is more likely with chronic, high-dose use and injection but also depends on characteristics of the user and the social context of use (Ellinwood, 1971; Hall, et al., 1996; Miczek & Tidey, 1989; Zinberg, 1984). Violent and aggressive behaviour is often associated with drug-induced paranoia and psychosis, which tends to occur with high doses (Allen, Safer, & Covi, 1975; Darke, et al., 2008; Ellinwood, 1971; Wright & Klee, 2001). The manufacture of ATS also creates potential hazards due to the risks associated with the use of “highly toxic, flammable and explosive materials” (ACC, 2003, p. 67). With laboratories frequently situated in residential areas, such hazards pose a risk not only to law enforcement workers but also to the community in general and resident children in particular (ACC, 2003; Connell-Carrick, 2007; Lineberry & Bostwick, 2006). Therefore, the use of ATS can raise a number of serious child protection concerns.

Cannabis.

Estimates from Australian data suggest that approximately 2.3% of children 12-years-old and under are likely to be living with at least one parent who uses cannabis on a daily basis (Dawe, et al., 2008). Under different circumstances cannabis can act as a stimulant, depressive, analgesic, sedative, or mild hallucinogen (Fox & Mathews, 1992; Gossop, 2007). Cannabis intoxication generally produces changes in thinking, perception, attention, and information processing with short-term memory being most clearly affected (Astolfi, et al., 1998; Hall & Solowij, 1998; Miller & Branconnier, 1983; O'Brien, 1996; Sullivan, 2000; Tart, 1970; WHO, 1997; Zimmer & Morgan, 1997). Cannabis intoxication impacts on motor skills, co-ordination, and reaction time (Asbridge, et al., 2012; Astolfi, et al., 1998; Beardsley & Kelly, 1999; Kelly, et al., 2004; O'Brien, 1996; Sewell,

et al., 2009; Tart, 1970; WHO, 1997) and increases the risk of motor vehicle collision (Asbridge, et al., 2012).

The psychoactive effects of cannabis use include altered perceptions of time; impaired judgement; social withdrawal; and anxiety (Copeland, et al., 2009) and ongoing use of cannabis tends to impact on executive functioning by causing fragmentation of thought, problems with short-term memory, and disturbances in concentration, attention, and judgement (Hall, et al., 2001; Lundqvist, 1995; Solowij, 1995; Solowij, Michie, & Fox, 1991). Withdrawal symptoms (including anxiety, irritability, disrupted sleep, reduced appetite) are experienced when regular cannabis use is abruptly ceased (Budney & Hughes, 2006; Haney, Ward, Comer, Foltin, & Fischman, 1999; Jones, Benowitz, & Bachman, 1976; Wiesbeck et al., 1996) and the irritability associated with abstinence from cannabis has the capacity to produce aggressive behaviour in some individuals (Budney, et al., 2001; Cherek, 1981; Kouri, et al., 1999). Hence, the use of cannabis has the potential to adversely affect an individual, particularly in the context of raising young children.

Crime and aggression.

The idea that cannabis use turned people into violent criminals (i.e., *reefer madness*) was initially promoted by Harry Anslinger, former director of the USA Bureau of Narcotics, during the 1930s (Gossop, 2007; Zimmer & Morgan, 1997). Although cannabis is frequently used by many juvenile delinquents and adult criminals this is because drug use and criminal behaviour are both associated with a larger set of risk factors related to personality, life history, and social environment (Zimmer & Morgan, 1997). When these risk factors and the use of other drugs are controlled there is no evidence that cannabis use leads to criminal behaviour (Fagan, Weis, & Cheng, 1990; Goode, 1972; Johnston, O'Malley, & Eveland, 1978; Simonds & Kashani, 1980) and rather than increasing aggression the use of cannabis tends to have a calming effect (Goode, 1972; Tinklenberg, Murphy, Murphy, & Pfefferbaum, 1981). Cannabis consistently produces decreases in hostility and aggression in laboratory experiments (Cherek & Dougherty, 1995; Cherek & Steinberg, 1987; Jones & Benowitz, 1976; Mendelson & Meyer, 1972) even under conditions of provocation (Myerscough & Taylor, 1985). This is consistent with animal studies where THC administration does not produce aggression unless animals are first subjected to extreme stress (e.g., starvation) (Carlini, Hamaoui, & Märtz, 2012; Miczek, 1976).

Psychosis and schizophrenia.

The relationship between cannabis use and the development of schizophrenia or psychosis has also been a focus of cannabis-related research (Copeland, 2012). Some people develop drug-induced psychosis after consuming a large amount of cannabis or more than they are used to. Cannabis-induced psychosis, characterised by disorientation, confusion, and distortions of visual and auditory perception, is usually self-limiting and dissipates within several days irrespective of any medical treatment (Caspi et al., 2005; D'Souza et al., 2000; Mathers & Ghodse, 1992; Skosnik, Spatz-Glenn, & Parks, 2001; Thomas, 1993; 1996). Nonetheless, it has been argued that any use of cannabis increases the risk of a psychotic episode by 40% (Moore et al., 2007).

Although some individuals experience cannabis psychosis, most do not. Psychotic symptoms are more likely to occur in individuals with a pre-existing mental illness or genetic predisposition (Henquet et al., 2009) and in those who use cannabis more heavily or meet criteria for cannabis dependence. There continues to be debate about the causative role of cannabis in producing schizophreniform psychosis (Hall, 2006b; Hall & Degenhardt, 2000; Jockers-Scherubl et al., 2003; Veen et al., 2004). Recent reviews have concluded that the use of cannabis precipitates schizophrenia and psychosis in those who are already vulnerable to psychotic disorders (Degenhardt, Hall, & Lynskey, 2000a; Hall, 2006b). In those who are vulnerable to schizophrenia, the use of cannabis can double their risk and bring about an earlier first episode of psychosis (Large, Sharma, Compton, Slade, & Nielsson, 2011). Arseneault, Cannon, Witton, & Murray (2004) found that early-onset (by age 15) cannabis use posed a greater risk for schizophrenia than later onset (by age 18) cannabis use. Hence, those who start using cannabis use at a younger age might be at greater risk of experiencing schizophrenic symptoms. It is likely that adolescence represents a critical period of vulnerability.

Anxiety and depression.

Although evidence suggests that the use of cannabis increases the risk for psychotic outcomes the evidence for affective outcomes is less convincing (Moore, et al., 2007). Psychopathology among cannabis users is relatively rare and usually precedes cannabis use (Day & Leonard, 1985; Hollister, 1986). Nonetheless, some researchers have found links between cannabis use and mental health problems (Fergusson, Horwood, & Ridder, 2005; Hall & Solowij, 1997; Lynskey et al., 2004; Rey & Tennant, 2005) and there is evidence that heavy cannabis use is associated with mood disorders, especially depression and anxiety (Degenhardt, et al., 2000a; Degenhardt, Hall, & Lynskey, 2003). The most common adverse reactions to cannabis are feelings

of anxiety, panic, and paranoia (Astolfi, et al., 1998; O'Brien, 1996; Tart, 1970; Thomas, 1996). Anxiety and dysphoric reactions are more common among inexperienced smokers and would appear to be transitory side effects that tend to diminish with experience of the drug (Mathew & Wilson, 1992). Adverse reactions are more likely when cannabis is ingested rather than smoked because it is difficult to consume large doses of THC through smoking but when cannabis products are eaten the liver produces a psychoactive compound (11-hydroxy-THC) that combines with the effects of THC to produce a stronger psychoactive effect (Agurrell et al., 1986; Lemberger, Martz, Rodda, Forney, & Rowe, 1973; Mason & McBay, 1985; Perez-Reyes et al., 1973; Perez-Reyes, Timmons, Lipton, Davis, & Wall, 1972; Wall & Perez-Reyes, 1981). Nonetheless, high doses taken orally do not inevitably produce panic reactions (Jones, et al., 1976) nor does using low potency cannabis prevent such reactions (Ritzlin, Gupta, & Lundberg, 1979). Individual predispositions, attitudes, and setting are often more important than dose in producing panic attacks (Ungerleider & Andrysiak, 1981; Zinberg, 1984).

Longitudinal studies indicate that heavy cannabis use might increase depressive symptoms in some users, however, common social and family factors also contribute to an increased risk of problem drug use and comorbid mental health problems in some individuals (Degenhardt, et al., 2003). Denson and Earleywine (2006) found that recreational marijuana users (n=4,494) reported less depressed mood, more positive affect, and fewer somatic complaints than nonusers and those who used cannabis to treat a medical condition. In a study of Australians who were using cannabis for medical purposes depression was the most commonly reported symptom of treatment with 56% of participants (n=128) using cannabis to alleviate depression (Swift, Gates, & Dillon, 2005). Hence, the relationship between cannabis and depression is complicated and controversial. Recent literature suggests that using cannabis contributes to depression and suicidal behaviours (Swift, et al., 2005).

Copeland (2012) has suggested that using cannabis might temporarily improve mood but contribute to an overall worsening of depression over time. Young people, less experienced users, and those who are predisposed to mental health problems are most at risk of cannabis contributing to poor mental health outcomes (Degenhardt et al., 2012; Solowij & Grenyer, 1995; Swift, et al., 2005). Individuals who use cannabis have more symptoms of depression and anxiety than those who do not and evidence suggests that frequent or heavy cannabis use predicts depression later in life, especially for women (Copeland, 2012). Furthermore, evidence

increasingly suggests that using cannabis contributes to increased risk for anxiety disorders (Degenhardt, et al., 2012).

Amotivational syndrome and educational outcomes.

Reports from American physicians during the 1960s suggested that adolescents who used cannabis were lethargic, apathetic, and unproductive. This led to the notion of a cannabis-induced *amotivational syndrome* characterised by reduced motivation to engage in social activity; loss of initiative and effectiveness; failure to pursue long-term goals; diminished drive and ambition; impaired ability to carry out complex tasks; difficulty in concentrating; and impaired school and work performance (Georgotas & Zeidenberg, 1979; Phil & Sigal, 1970). Although research has been directed at evaluating the effect of cannabis use on motivation, academic achievement, and work performance (Zimmer & Morgan, 1997) an amotivational syndrome *per se* has not been clearly supported in the research (Grinspoon, et al., 2005). The aimlessness, apathy, lack of ambition, uncommunicativeness and passivity that is frequently associated with cannabis use is most likely related to the broader sociocultural environment, especially heavy cannabis use by individuals who are alienated, rebellious, cynical, bored, and depressed (Grinspoon, et al., 2005). Musty and Kaback (1995) found that *heavy* cannabis users were less achievement oriented than *occasional* cannabis users but after controlling for symptoms of depression they concluded that some depressed individuals become heavy cannabis users. Rather than an amotivational syndrome caused by heavy cannabis use it may be the case that individuals with pre-existing vulnerabilities to psychological problems often become heavy cannabis users (Musty & Kaback, 1995).

The existence of an amotivational syndrome has also been studied by examining the occupational achievement and work performance of adult cannabis users. Studies conducted in Jamaica (Bowman & Pihl, 1973; Comitas, 1976), Greece (Boulougouris, Liakos, & Stefanis, 1976), and Costa Rica (Carter & Doughty, 1976) where cannabis was commonly smoked, found few differences between heavy cannabis users, moderate users, and nonusers. In fact, in Costa Rica the heaviest cannabis users had more high-paying, high-status jobs than those who did not use cannabis or used it moderately (Carter & Doughty, 1976). Furthermore, increased productivity was noted amongst those farm labourers in Jamaica who smoked cannabis more heavily than other workers (Bowman & Pihl, 1973). These findings would imply that, rather than decreasing motivation and productivity, heavy cannabis use might be beneficial, at least in certain occupations. Data from large samples of young American adults have indicated that cannabis

users are as likely as nonusers to be employed and that their earnings are equal to or higher than non-cannabis users (Gill & Michaels, 1992; Kaestner, 1991, 1994a, 1994b; Kandel, Chen, & Gill, 1995; Kandel & Davies, 1990; Register & Williams, 1992; Sickels & Taubman, 1991). Although Kandel and Davies (1990) found that cannabis users were more likely to experience longer and more frequent unemployment, reanalysis of the same data across a longer period by another researcher failed to identify differences between those who used cannabis frequently, occasionally, or not at all (Kaestner, 1991, 1994a, 1994b). Taken together, the above studies suggest that adult cannabis users would seem to be as likely to be gainfully employed as others were.

Fergusson, Horwood, and Beautrais (2003a) collected data from 1,265 children born in New Zealand and followed them for 25 years. Amongst other things, they measured frequency of cannabis used between the ages of 15 and 25; educational achievement by age 25; and social, family and individual characteristics prior to age 16. After controlling for confounding factors, increased use of cannabis was associated with an increased likelihood of leaving school without qualifications, failure to enter university, and failure to obtain a university degree (Fergusson, et al., 2003a). There was no evidence to support the notion of reverse causal pathways in which lower educational achievement led to increased cannabis use. These findings strongly support the view that using cannabis can decrease educational achievement in young people. In examining findings across studies approximately 17% of high school failures were associated with the use of cannabis, suggesting that perhaps the greatest risk factor associated with cannabis use is a failure to complete high school. So whereas the evidence may not clearly indicate the existence of an amotivational syndrome there is no doubt that the use of cannabis by adolescents and young people is associated with lower educational outcomes (Fergusson, 2009; Fergusson, et al., 2003a). Fergusson and his colleagues have suggested that this probably reflects the wider social context within which cannabis is used rather than any direct effects of cannabis on cognitive ability or motivation.

Parenting factors.

The most significant factor affecting outcomes for children is the attitude and behaviour of their parents (Newman & Blackburn, 2002). Non-authoritarian, child-centred parenting, and a positive regard for education, “outweigh the effects of all other variables combined” (Newman & Blackburn, 2002, p.5). However, such positive parenting is difficult to achieve in the context of low SES and the absence of supportive relationships (Newman & Blackburn, 2002). An adult develops

parenting skills from his or her own experience of being parented (Bauman & Dougherty, 1983; Bauman & Levine, 1986; Nurco, Blatchley, Hanlon, O'Grady, & McCarren, 1998) as well as from family and community networks and wider social and cultural norms. The quality of care provided to children will be influenced by the caregiver's own developmental history, his or her preparation for parenthood, and the level of available and appropriate social support (Sroufe, 1988). Thus, drug users have varying abilities to be a 'good-enough' parent irrespective of their drug use. Many people who develop problematic drug use come from family backgrounds that fail to provide adequate skills for parenting (Boyd & Mieczkowski, 1990; Chasnoff, 1992; Larsson, 1980; Nurco, et al., 1998). Hence, premorbid functioning is an important consideration in the assessment and treatment of parents with problematic drug use.

Parent-child attachment and interactions.

Secure infant-caregiver attachment relationships are important because early attachment styles strongly influence future relationships, interactions, and coping (Iwaniec & Sneddon, 2001; Main, 1996; Schore, 2001; Sroufe, 1988). It is mainly through the primary caregiver relationship that children develop the early internal working models of self and others that provide a context for future transactions with the environment (Bowlby, 1973; Bowlby, 1984). A caregiver who is responsive, sensitive, and available promotes a secure attachment relationship, from which a child is likely to develop positive social expectations, a sense of self-worth and self-efficacy, and begin to understand the reciprocal nature of relationships (Elicker, Egeland, & Sroufe, 1992; Sroufe, 1988). Longitudinal attachment research has found that the quality of infant-caregiver attachment relationships is predictive of social competence in later childhood (Elicker, et al., 1992). For example, Elicker and colleagues (1992) found that infants who had developed a secure attachment style by the age of 2 years, had higher levels of confidence, friendships, self-esteem, and leadership capacity at the age of 10 than children with insecure early attachment styles. Similarly, poor parental attachment during adolescence is associated with higher rates of conduct problems, early onset of drug use, and higher levels of affiliation with delinquent or drug using peers (Fergusson & Lynskey, 1998; Kandel & Davies, 1992). Hence, the nature of a child's early relationship with his or her primary caregiver, usually the mother, is a critical factor in the child's psychosocial development.

Higher rates of insecure and disorganised attachment relationships have been noted amongst children of drug users (Beckwith, et al., 1994; Rodning, Beckwith, & Howard, 1989). Beckwith et al. (1994) used the 'strange situation procedure' (Ainsworth, Blehar, Waters, & Wall,

1978) to examine the attachment styles of 18 children prenatally exposed to cocaine or PCP. At 15 months of age the majority (64%) of infants in the control group were classed as securely attached, meaning they could rely on the caregiver to meet their physical and psychological needs, whereas in the drug-exposed group only 18% of attachments were judged to be secure, with the majority (68%) being classified as disorganised (Beckwith, Crawford, Moore, & Howard, 1995). Disorganised attachment styles are associated with child neglect and abuse, and indicate that the child lacks a uniform strategy toward the caregiver, behaving in contradictory ways, including proximity-seeking coupled with avoidance or intense distress, and positive or neutral affect without proximity-seeking (Rodning, et al., 1989). Importantly, the number of changes in primary caregiver and foster placements was not found to predict poorer outcomes (Beckwith, et al., 1995). For children residing with their biological mother, the only significant factor was whether she continued to use drugs during the infant's first 15 months of life. Mothers who continued to use drugs were less responsive to their infants than comparison mothers (Beckwith, et al., 1995) and all of the children who lived with mothers that continued to use drugs were categorised as having insecure attachment styles (that is, either anxious-avoidant or anxious-resistant) (Beckwith, et al., 1994). These findings support the notion that mothers who use drugs respond less frequently and less consistently to the cues of their infants and tend to use more controlling responses.

Parenting attitudes, styles, and behaviours.

Parenting children involves responding consistently and warmly to their attentional needs, as well as their physical needs, protecting them from harm and generally teaching them to function responsibly (Hans, 2004). Cognitive, emotional, and social development in children is strongly influenced by the parenting and interactive style of their caregivers (Bornstein, 1989; Mayes & Sean, 2002; Suchman, Rounsaville, DeCoste, & Luthar, 2007; Tamis-LeMonda & Bornstein, 1989). An *authoritative* parenting style, characterised by warmth, consistency, nonpunitive punishment practices and inductive discipline is consistently related to positive developmental outcomes in children (Davies, 1997). An authoritative parenting style is both responsive and demanding, and produces clear advantages in terms of outcomes for children (Ross & Davies, 2009; Steinberg, Fletcher, & Darling, 1994). Children from families where parental styles are overly controlling (authoritarian) or too permissive (indulgent or neglectful) are more likely to experience problems, including adolescent drug use (Baumrind, 1989, 1991; Blows et al., 2005; Jurich, Polson, Jurich, & Bates, 1985). Parental inconsistency, unpredictability, and

insufficient levels of stimulation and emotional warmth contribute to the likelihood of delays in development, as well as to increased levels of hyperactivity, impulsivity, and aggression in children (Cleaver, et al., 2011). Parents who use drugs often have difficulty organising their lives and providing consistent and effective parenting (Cleaver, et al., 2011) and studies (albeit with methodological limitations) have consistently found higher levels of drug use to be associated with authoritarian and neglectful styles of parenting (Advisory Council on the Misuse of Drugs, 2003; Barnard & McKeganey, 2004; Bauman & Dougherty, 1983; Bauman & Levine, 1986; Kandel, 1990; Kumpfer, 1987; Velleman, 2009; Wellisch & Steinberg, 1980).

Colten (1980) compared 170 women in drug treatment with a matched control group and found no differences in their attitudes and expectations about parenting. However, women in the drug-using group had more concerns about their ability to provide adequate parenting. Bauman and Dougherty (1983) also found no differences in parenting attitudes between 15 methadone-maintained mothers and a control group of mothers with preschool children, however, differences in actual parenting behaviour were observed. They found that methadone-maintained mothers reported a broader range of parenting difficulties and adopted a more disciplinarian, threatening style of parenting (Bauman & Dougherty, 1983). They engaged in a higher rate of aversive behaviours, including the use of more commands, negative reinforcement, disapproval, provocation and threats. However, the nondrug-using mothers in this study had significantly higher levels of education than the methadone-maintained mothers and this is likely to have influenced their parenting skills.

Wellisch and Steinberg (1980) rated mothers in a detoxification program as being higher on *authoritarian over-involvement*, a tendency to over control the child and to exclude outside influences on parenting. Kumpfer (1987) noted that threatening, chastising, criticising, and belittling were frequent forms of communication in families with maternal drug problems. Kandel (1990) found that while maternal drug involvement led to poorer parenting (lack of monitoring, lower levels of warmth) it was the level of drug use rather than drug use *per se* that predicted poorer parenting for mothers. Notably, for fathers, relationships were often in the opposite direction, such that fathers who were involved with drugs were more likely to get involved with activities with the child and to use less punitive forms of discipline (Kandel, 1990).

Although some drug-using mothers interact poorly with their children this is not true of all drug-using parents and a number of other factors predict dysfunctional parenting behaviour. In their examination of methadone-maintained women Bernstein et al. (1984) found that 47% scored

in the normal range for interaction and communication with their infants. Those with lower scores had lower IQs, lower SES, and less contact with the child's father. Burns and Burns (1988) have suggested that dysfunctional parenting amongst drug dependent women is affected by four major factors: maternal emotional instability, lack of social support, a negative parenting heritage, and the high-risk status of the child or children. Kumpfer and DeMarsh (1986) noted that although many drug misusing parents aspired to be good parents they were often lacking in the skills and resources necessary for effective parenting. Parents can learn to be more effective and nurturing parents, however, it is difficult to make such changes when they remain in high stress environments marked by poverty and insufficient support (Repetti, et al., 2002).

Social support and social development.

The availability of social support has been identified as one of the most important factors in predicting intellectual and language development in children (Bee, et al., 1982). However, a lack of social support has been identified as an issue for drug-using women in that many have rarely experienced positive social support at any stage of their lives (Boyd & Mieczkowski, 1990; Burns & Burns, 1988; Davis, 1990; Mayes & Sean, 2002). Tucker (1979) compared the social support networks of women in heroin treatment programs with men in the programs, as well as with a control group of nondrug-using women. The women in treatment for heroin dependence were more likely to report having no friends, feeling lonely, and receiving less emotional support than either the control group of women or the men. This level of isolation is possibly a function of the greater level of stigma associated with the use of illegal drugs by women, especially mothers (see Inciardi, et al., 1993).

Disorganisation, instability, and drug use within extended families and social networks contributes to a lack of support (Larsson, 1980; Regan, et al., 1987) and social isolation (Kroll & Taylor, 2003). With parents afraid to ask for help due to the risk of children being taken into care, families can close in on themselves becoming gradually more removed from normal support systems (Coleman & Cassell, 1995; Mayes & Sean, 2002). Drug users often find themselves retreating from the wider community into a culture and environment that increasingly revolves around drug use (Cleaver, et al., 2011). Families in which there is illegal drug use, experience greater levels of community rejection and are less socially involved, attending fewer religious, neighbourhood, and cultural activities (Cleaver, et al., 2011; Kumpfer & DeMarsh, 1986). Kumpfer and DeMarsh found that in families where parents were drug dependent, children were significantly less likely to participate in family activities of all types (including sports, parties,

watching television, playing games, and informal chats). Social support can moderate the effects of stress on parenting (Rutter, 1990), therefore, the provision of appropriate social support can be important in reducing the risks to children of drug users (Dawe, et al., 2008; Hogan, 1998).

Children are often aware of their parent's drug use from a young age (Advisory Council on the Misuse of Drugs, 2003; Barnard & Barlow, 2003) and they learn to be cautious about exposing their family life to scrutiny. Furthermore, the costs associated with parental drug use means that money might not be available for household items, appropriate clothing, school outings, etc. As a consequence children of drug users often have limited friendships and can become socially isolated and lonely (Kumpfer & DeMarsh, 1986). Children from homes where parents are dependent on illegal drugs often experience inadequate supervision and a lack of appropriate social stimulation. Adolescent children of drug users are likely to be particularly affected in this regard; due to parental emotional unavailability they are often left to cope with the demands of puberty alone (Advisory Council on the Misuse of Drugs, 2003). Low levels of social support, social integration and connectedness, poor social adjustment, and difficulties forming relationships are risk factors for adolescent drug use (Kaplan, et al., 1986; Newcomb & Bentler, 1990; Shedler & Block, 1990). Therefore, it is important that, where possible, interventions address the social aspects of child and family development.

Child outcomes.

As discussed above, the use of illegal drugs by parents and the lifestyle associated with such drug use, can compromise a parent's capacity to ensure that the developmental needs of their children are effectively met. In terms of parenting capacity and family functioning, Kroll and Taylor (2003) identified three predominant themes emerging from studies of parental drug use. Firstly, parents often admitted to being less emotionally involved with their children (Hogan & Higgins, 2001; Hogan, 1997). Secondly, parents often described increased irritability with children due to the effects of withdrawal from drugs (McKeganey, et al., 2002). The third theme was about the atmosphere of secrecy that pervades many drug-using families (Barnard & Barlow, 2003). Taken together, these studies paint a picture of under-involved, irritable parents who shut their children out of rooms without providing adequate explanations as to why this occurs. These parental behaviours affect the general trust between parents and children and often leave children feeling confused, rejected, and burdened (Barnard & Barlow, 2003). In considering the impact of parental drug use, outcomes for children can be compared across a wide range of domains including achievement, cognitive capacity, social skills, attachment to parents, school

attendance, etc. A review of the literature, however, identified three predominant themes: language development, child behaviour, and adolescent drug use. Each of these broad indicators of child development is discussed below.

Language development.

Successful acquisition and development of language is critical to social and behavioural adaptation, cognitive development, and success in the academic, social, and employment context (Mentis & Lundgren, 1995; Morrow, et al., 2003; Vitkovitch, 2008). Social stimulation is important in language development (Rutter, 1987), which is strongly influenced by the quality of interactions between a child and his or her caregiver (Bee, et al., 1982; Hoff-Ginsburg & Shatz, 1982; Zimmerman et al., 2009). Delays in language development are associated with poverty, as well as mother's psychosocial functioning, and the quality of mother-infant attachment (Coster, Gersten, Beeghly, & Cicchetti, 1989; Kaplan, 1991; Morissey, Barnard, Greenberg, Booth, & Spieker, 1990). A mother's ability to initiate and sustain social, linguistic, and affective interaction with her child can be compromised by drug use (Pawl, 1992). Hence, children of illegal drug users might be at risk for delays in language development. For example, Scherling (1994) found that 40% of cocaine-exposed 3 year-olds (whose parents continued to use drugs after they were born) showed below average language skills whereas only 15% of those whose parents had ceased drug use showed such deficits. Malakoff, Mayes, and Schottenfeld (1994) assessed children in a drug-treatment setting for cocaine users and found that 60% of the children showed serious delays in language development. Greater delays in older children suggested a cumulative effect of environment. Hence, there is some evidence that children of drug users might be at increased risk of experiencing delays in language development. Early intervention is important in overcoming language delays, which put children at risk of academic and broader failure (Malakoff, et al., 1994; Mentis & Lundgren, 1995; Vitkovitch, 2008).

Child behaviour and mental health.

The majority of research linking child behavioural problems with parental drug problems has been undertaken in America with parents who were dependent on heroin or methadone (Barnard & McKeganey, 2004) and suggests that children from such families are at a greater risk of developing problematic behaviours (Xian et al., 2008). Sowder and Burt (1980b) found that children whose parents used heroin had a greater risk of poor learning and behavioural outcomes than a control group of children from the same neighbourhood. They were reported to have lower IQ and perceptual motor performance, required more remedial assistance, missed more

school days, and had more behavioural problems than children from the control group. Kandel (1990) found that higher levels of maternal drug involvement were associated with decreased obedience and increased aggressive, withdrawn, and detached behaviour in children. Wilens et al. (1995) found that children of opioid dependent parents showed clinically significant levels of delinquency and attentional problems. Bauman and colleagues found that children of methadone-maintained mothers exhibited more aversive behaviours and fewer prosocial behaviours than children whose mothers did not use drugs (Bauman & Dougherty, 1983; Bauman & Levine, 1986).

In a matched control study, children raised in families where parents were dependent on opioids were at significantly greater risk of experiencing symptoms of depression and anxiety (Johnson, Boney, & Brown, 1991). In a replication study, involving children of heroin and cocaine users (n=78) high rates of depression (20%) and other psychiatric disorders (60%) were found (Fergusson, 2009). These studies suggest that children whose parents use opioids display high levels of psychosocial impairment. Children with emotional and behavioural problems are difficult to parent and this often discourages effective parenting and leads to an escalation of antisocial behaviour by the child (Simons, Whitbeck, Beaman, & Conger, 1994). Conduct problems during childhood, particularly poor impulse control, hyperactivity, and antisocial traits are a precursor to adolescent drug use and delinquency. Poor parental attachment during adolescence is strongly associated with these and other adverse outcomes (Beyers, Toumbourou, Catalano, Arthur, & Hawkins, 2004; Block, Block, & Keyes, 1988; Fergusson & Lynskey, 1998; Hayes, Smart, Toumbourou, & Sanson, 2004; Hechtman, Weiss, & Perlman, 1984; Kandel, 1990; Kramer & Loney, 1982; Loney, 1988; Loxley, et al., 2004; Mitchell et al., 2001; Shedler & Block, 1990; Spooner, 1999; Spooner, Hall, & Lynskey, 2001; Stockwell et al., 2004; Swaim, 1991; Tarter, Laird, Kabene, Bukstein, & Kaminer, 1990; Toumbourou, 2002).

Although the above studies indicate poor outcomes for children of problem drug users, it should be noted that the majority of such research has been conducted in families that have experienced a high degree of cumulative risk factors (as discussed above) that have a detrimental impact on their development. Studies of illegal drug use by parents has focused on the use of opioids (Barnard & Barlow, 2003; Hogan & Higgins, 2001; Hogan, 1998; Kearney, Murphy, & Rosenbaum, 1994), amphetamines (Klee, 1998; Klee, et al., 2001), and cocaine (Boyd, 1993; Boyd & Mieczkowski, 1990; Hawley, et al., 1995; Hogan, 1998) and there has been no research

examining the long-term use of cannabis in the family context. Hence, it is not known whether similar levels of adversity and poor outcomes would be found.

Adolescent drug use.

Whether cannabis use during adolescence increases the likelihood of an individual going on to use other illegal drugs, such as cocaine and heroin (i.e., *the gateway hypothesis*) (Kandel, 1975) is a central issue of controversy in the literature (Donnelly & Hall, 1994; Fergusson, Boden, & Horwood, 2006; Fergusson & Horwood, 2000; Hall, 2006a; Hall & Lynskey, 2005; Kandel, Yamaguchi, & Klein, 2006; Lynskey, Vink, & Boomsma, 2006; MacCoun, 2006). According to the gateway hypothesis there is a developmental sequence to drug use that sees young people begin with legal drugs (alcohol & tobacco) followed by cannabis and then by the use of other illegal drugs. Most individuals who use opioids or stimulants do have a history of cannabis use that predates the use of other illegal drugs (Donnelly & Hall, 1994). However, for most people cannabis is a *terminus* drug rather than a gateway drug because most cannabis users do not use other illegal drugs (Zimmer & Morgan, 1997). Although those who use other illegal drugs also tend to use cannabis it has not been found to be a causal factor nor is it the most serious predictor of problematic drug use (Joy, et al., 1999; Taylor, 2008).

Evidence from both the USA and Australia consistently shows a pattern of initiation into drug use whereby the use of cigarettes and alcohol precedes the use of cannabis, which tends to occur before initiation into 'hard' drugs, such as the opioids and stimulants (Blaze-Temple & Lo, 1992; Donnelly & Hall, 1994). Progression to the next drug in the sequence is more likely to occur when initiation into drug use occurs at an earlier age and when an individual becomes heavily involved with any particular drug in the sequence (Hall & Lynskey, 2005; Kandel, 1988; Kandel & Logan, 1984; Kandel, et al., 1992). Although some authors (Nahas, 1990) imply that smoking cannabis inevitably leads to the use of other drugs there is insufficient evidence to support a causal relationship in which the pharmacological effects of cannabis use promote the use of other drugs (Donnelly & Hall, 1994; Taylor, 2008). Hence, prominent gateway theorists describe patterns of drug initiation without invoking causality. More plausible and well-supported explanations are offered by the *selective recruitment hypothesis*, in which adolescents who use cannabis are usually less conforming and thereby have a propensity toward illegal drug use, and the *drug subculture hypothesis*, in which involvement and socialisation within drug-using subcultures sees increased exposure, opportunities, and encouragement to use other illegal drugs (Donnelly & Hall, 1994). The need to obtain cannabis illegally means that the opportunity to

obtain other illegal drugs is often presented to cannabis users, who might be tempted to experiment with other drugs given that cannabis is prohibited but has not harmed them (Gossop, 2007).

Experimentation with drugs is a normative feature of adolescent life (Newcomb & Bentler, 1988; Shedler & Block, 1990), however, the risk of young people developing problematic patterns of drug use has seen ongoing efforts aimed at preventing the uptake of illegal drugs (O'Connor, 1990; Spooner, 1999; Spooner, et al., 2001; Toumbourou, 2002). Such efforts are often dismissed by the target audience who consider the message to be overly negative, scare mongering or irrelevant (Holt, 2008; Moore, 2008; Spooner, et al., 2001). There is a period from late adolescence to early adulthood in which young people are particularly vulnerable to developing problematic drug use and a family history of drug use is the most potent predictor of this development (Magura & Laudet, 1996; Merikangas, et al., 1998a).

Individual risk factors for problematic drug use include: genetic predisposition toward behavioural under-control; personality factors such as alienation, high tolerance for deviance, and resistance to authority; knowledge about drugs; poor coping skills; and academic problems (Spooner, 1999; Spooner, et al., 2001). Studies examining cannabis use amongst high school students have identified lower grades, lower career aspirations, and higher rates of dropout amongst heavy cannabis users compared with occasional users and nonusers (Block, et al., 1988; Brook, Gordon, & Whiteman, 1985; Jessor, Chase, & Donovan, 1980; Kandel & Davies, 1996; Kandel & Logan, 1984). Environmental factors that increase the risk of problematic drug use include SES, peer culture, occupational risk, and cultural norms and social attitudes about drug use (Scherrer, et al., 2008; WHO, 2004).

Evidence suggests that most adolescents who use cannabis heavily have psychological, behavioural, and emotional problems stemming back to childhood (Dembo et al., 1990; Donovan & Jessor, 1985; Farrell, Danish, & Howard, 1992; Kleinman, Wish, Deren, Rainone, & Morehouse, 1988; Scheier & Newcombe, 1991; Shedler & Block, 1990; Tubman, Vicary, von Eye, & Lerner, 1991) and they are also more likely than occasional and non-cannabis users to have heavy alcohol use and to use other illegal drugs (Donovan & Jessor, 1983; Johnson, 1988; Kandel & Davies, 1992, 1996; Kandel & Yamaguchi, 1993; Yamaguchi & Kandel, 1984). Therefore, those young people most likely to use cannabis during adolescence are often the same young people who are at risk for mental health problems, delinquency, polydrug use, and poor school outcomes even before they use cannabis (Hall, et al., 2001). Nonetheless, cannabis intoxication impedes school

performance and increases the risk of impulsive behaviours, such as suicide and criminal involvement (Hall, et al., 2001).

Research has confirmed the extent to which drug use is transmitted in families (Cadoret, Troughton, O'Gorman, & Heywood, 1986; Croughan, 1985; Gfroerer, 1987; Hopfer, et al., 2003; Meller, Rinehart, Cadoret, & Troughton, 1988; Merikangas et al., 2009; Mirin, et al., 1991) and studies indicate that any sort of parental drug use (legal or not) is associated with increased levels of drug use by adolescents (Anderson & Henry, 1994; Fawzy, Coombs, & Gerber, 1983; Gfroerer, 1987; Hawkins, Catalano, & Miller, 1992; Johnson & Leff, 1999; Merikangas, et al., 1998a; Merikangas, et al., 1992; Mitchell, et al., 2001). Furthermore, a generalisation effect occurs whereby youth not only emulate their parents' use of drugs but also use a wider range of drugs than their parents did (Agrawal & Lynskey, 2009; Dishion, et al., 1988; Fawzy, et al., 1983; Smart & Fejer, 1972; Turiel, 1989). Therefore, when parents consumed legal drugs, such as alcohol and cigarettes their children were more likely to use illegal drugs (Gossop, 2007; Hochman & Brill, 1973; House of Representatives Standing Committee on Family and Human Services, 2007; Kandel & Davies, 1992; Turiel, 1989) although this is probably also related to wider availability and acceptance of illegal drug use by younger cohorts.

Family-related risk factors for adolescent drug use include family disruption, levels of family stress, quality of parenting (Shedler & Block, 1990), family psychopathology (Kandel & Davies, 1992), social deprivation, neglect and abuse (Merikangas, et al., 1998a), sibling drug use (Avenevoli & Merikangas, 2003; Bierut et al., 1998; Merikangas, et al., 1992; Swaim, 1991), inadequate monitoring and control of adolescents' behaviour (Amos, et al., 2004; Bohnert, Anthony, & Breslau, 2011; Chen, Storr, & Anthony, 2005; Montgomery, Fisk, & Craig, 2008; Snyder, Dishion, & Patterson, 1986; Steinberg, et al., 1994), poor parent-child attachment (Kostelecky, 2005), conflicted family relationships, level of involvement with children (Chen, et al., 2005; Choquet, et al., 2008), disciplinary style (Chen, et al., 2005), family isolation, and attitudes that condone drug use and deviance (Brook, Whiteman, & Gordon, 1983; Brook, Whiteman, Nomura, Gordon, & Cohen, 1988; Brook, Brook, Gordon, Whiteman, & Cohen, 1990; Cadoret, Troughton, Merchant, & Whitters, 1990; Cohen, Brook, Cohen, Velez, & Garcia, 1990; Dishion, et al., 1988; Hawkins, et al., 1992; Hechtman, et al., 1984; Johnson, Schoutz, & Locke, 1984; Jurich, et al., 1985; Kandel & Davies, 1992; Kaplan, et al., 1986; Kumpfer, 1987; Kumpfer & DeMarsh, 1986; Magura & Laudet, 1996; Merikangas, et al., 1992; Mitchell, et al., 2001; Resnik, et al., 1998; Rhodes & Jason,

1990; Shedler & Block, 1990; Swaim, 1991). Hence, a wide range of family factors influence the likelihood that an adolescent will develop problematic patterns of drug use.

An adolescent's perception of his or her parent's attitudes toward drug use is as important as the parent's actual behaviour in predicting adolescent drug use (Hansen et al., 1987; Jurich, et al., 1985; McDermott, 1984). When children know that their parents use drugs, it conveys the message that using drugs is an acceptable adult behaviour (Nurco, et al., 1998). Although peer influences are frequently cited in the aetiology of adolescent drug use, peers tend to influence initiation and lower levels of drug use (Elliott, Huizinga, & Ageton, 1985; Kandel, 1985; Shedler & Block, 1990; Steinberg, et al., 1994) whereas family tends to exert the strongest influence on the development of problematic drug use (Noller & Callan, 1991; Steinberg, et al., 1994; Young & West, 1985). Hence, the ability of peers to influence each other depends not only on the strength of commitment to the peer group but also on the quality of the parent-adolescent relationship. When parents and adolescents have a positive and co-operative relationship peers exert less influence (Brook, et al., 1990; Kandel & Davies, 1992; Noller & Callan, 1991; Spooner, et al., 2001). However, when young people have a strong attachment to a parent that uses drugs, this increases the likelihood of the young person becoming involved with drugs (Nurco, et al., 1998). Therefore, interventions aimed at improving parent-child relationships and strengthening families are likely to be important in reducing drug use by adolescents except perhaps when that parent is a drug user.

Personality factors of the child, especially impulsiveness and antisocial traits, that persist into adolescence are also important predictors of future drug-related problems (Shedler & Block, 1990; Swaim, 1991). Difficulties with emotional regulation (Block, et al., 1988; Brook, Whiteman, Gordon, & Cohen, 1989; Labouvie, Pandina, White, & Johnson, 1990; Noller & Callan, 1991; Tarter, et al., 1990), poor psychological adjustment, difficulty coping, and emotional distress have also been implicated in the aetiology of problematic drug use (Kandel & Raveis, 1989; Labouvie, 1987; Newcomb & Bentler, 1990; Shedler & Block, 1990). Such psychological problems are also typically transmitted in families, increasing the likelihood of co-occurring drug use (Magura & Laudet, 1996; Merikangas, et al., 1998a). Therefore, family factors and genetic predispositions contribute to a cycle of intergenerational drug use.

Some studies have found that there is specificity for intergenerational transmission in regards to particular drug types (Avenevoli & Merikangas, 2003; Bierut, et al., 1998; Merikangas, et al., 1998a; Merikangas, et al., 2009; Merikangas, et al., 1992; Tsuang et al., 1996). This suggests

the possibility that, rather than a predisposition to general deviant behaviour, some individuals might inherit vulnerabilities that predispose them to dependence on particular drugs (Merikangas, et al., 1998a). For example, a number of studies have found that adolescents were more likely to use cannabis if their parents or older siblings used cannabis (Anderson & Henry, 1994; Duncan, Duncan, Hops, & Stoolmiller, 1995b; Gfroerer, 1987; Merikangas, et al., 2009).

Twin studies have found that a high proportion of the variance in sibling concordance for cannabis use disorders is explained by genetic factors (Agrawal, Jacobson, Prescott, & Kendler, 2004; Agrawal & Lynskey, 2009; Cadoret, et al., 1986; Cadoret, Yates, Troughton, Woodworth, & Stewart, 1995; Kendler & Prescott, 1998; Lynskey et al., 2002; Rhee, Hewitt, Young, & Corley, 2003; Tsuang et al., 1998). Adoption studies have confirmed the heritability of cannabis disorders, as well as emphasising the importance of the interaction between genetic and environmental factors (Agrawal, et al., 2004; Kendler & Prescott, 1998; Lynskey, et al., 2002; Rhee, et al., 2003; Tsuang, et al., 1998). Genetic factors would appear to play a much stronger role in the development of problematic drug use patterns (i.e., dependence) than in the early stages of drug use (e.g., initiation) which tend to be more strongly influenced by environmental factors (Kendler & Prescott, 1998; Merikangas, et al., 1998a; Rhee, et al., 2003; Swaim, 1991; Tsuang, et al., 1996). Hence, family genetics and the effects of a shared environment both contribute independently to the development of cannabis-related problems (Xian, et al., 2008).

Similar to other drugs, risk factors for cannabis use are related to age of initiation, religious involvement, and peer relationships (Kandel & Davies, 1992) as well as the availability of drugs, SES, and delinquent behaviours (Bovasso, 2001; Martin, et al., 1994; Merikangas et al., 1998b; Moss, et al., 1994; Van Den Bree & Pickworth, 2005; von Sydow, Lieb, Pfister, Hoefler, & Wittchen, 2002; Windle & Wiesner, 2004; Wittchen et al., 2007). Cannabis has a high discontinuation rate, such that the large majority of those who try cannabis do not become frequent users (Donnelly & Hall, 1994; Zimmer & Morgan, 1997) and the risk factors for dependence and heavy use tend to be somewhat different to those that lead to non-problematic use (Brook, et al., 1990; Brook, Kessler, & Cohen, 1999; Brook & Newcomb, 1995; Cadoret, et al., 1986; Glantz, Weinberg, Miner, & Colliver, 1999; Kandel & Davies, 1992; Kandel, et al., 1992; von Sydow, et al., 2002). Drug-related problems are predicted by the cumulative number of risk factors that an individual is exposed to (Brook, et al., 1999; Chen, et al., 2005; Glantz, et al., 1999; Magura & Laudet, 1996; Van Den Bree & Pickworth, 2005; von Sydow, et al., 2002; Windle & Wiesner, 2004).

A number of studies have found that adolescents were more likely to use cannabis if their parents or siblings used cannabis or other illegal drugs (Andrews, Hops, & Duncan, 1997; Bahr, Hoffman, & Yang, 2005; Brook, Brook, Arencibia-Mireles, Richter, & Whiteman, 2001; Brook et al., 2001; Duncan, et al., 1995b; Duncan, Duncan, & Hops, 1996; Fawzy, et al., 1983; Gfroerer, 1987; Hopfer, et al., 2003; King, Vidourek, & Wagner, 2003; Merikangas, et al., 2009). However, according to Family Interactional Theory (FIT) (Brook, et al., 1990) the influence of parental and sibling cannabis use is mediated by the increased likelihood that young people whose parents use illegal drugs are more likely to select peers and significant others who also use illegal drugs. FIT is supported by longitudinal research that followed cannabis users (n=586) into their thirties, finding that parental and sibling cannabis use was related to the use of cannabis by peers and significant others, which in turn, influenced cannabis use in the participant's adult life (Brook, Zhang, Koppel, & Brook, 2008).

Oldenberg and Lemon (1992) found that the use of cannabis by parents, friends, and male siblings predicted cannabis initiation whereas the extent of an individual's involvement in drug use was the best predictor of continued use (Kandel & Raveis, 1989). Those who initiated use at a younger age, were heavier users, used other illegal drugs, or used cannabis for psychological rather than social reasons were more likely to continue to use cannabis on an ongoing basis (Kandel & Davies, 1992; Kandel & Raveis, 1989). The cessation of cannabis use was found to be related to the following variables: having less drug using friends; higher self-rating of health; not being involved in delinquent behaviour; getting married; higher religiosity; and lower deviance (Kandel & Raveis, 1989). Rather than concern about criminal prosecution, studies of dependent users have found that periods of abstinence were associated with intrinsic motivations, such as health concerns; social approbation; and increasing energy, motivation, and self-image (Boyd et al., 2005; Copersino et al., 2006a; Ellingstad, Sobell, Sobell, Eickleberry, & Golden, 2006; Hughes, et al., 2008; VonSydow et al., 2001). Hence, many factors, usually of a social nature, rather than related to the legal status of cannabis, influence its ongoing use or discontinuation.

Protective factors.

Children are socialised within a family context and it is through the family that they develop their values, emotional responses, and behaviours (Kumpfer, et al., 1998) hence, the family represents the single most important risk factor for the development of problem drug use and other adverse outcomes (e.g., poor health, criminal involvement) (Kumpfer, et al., 1998; Merikangas, et al., 1998a; Mitchell, et al., 2001; Spooner, et al., 2001). Although children who live

with drug using parents may be at risk for adverse outcomes, individual outcomes vary considerably, even amongst children raised in very similar circumstances (McMahon & Luthar, 1998). Some children from families with histories of problematic drug use develop into balanced, well-functioning adults (Cleaver, et al., 2011; Garmezy, 1985; Johnson & Leff, 1999; Orford & Velleman, 1990) demonstrating that drug use does not necessarily mean poor parenting or adverse outcomes for children (Dawe, et al., 2006).

Outcomes for children are a consequence of the interaction of risk and protective factors over time (Clayton, 1992; Corbett, 2005; Loxley, et al., 2004). Research to date has emphasised risk factors and less is known about the factors that facilitate positive development or competence in the children of drug users (Johnson, Glassman, Fiks, & Rosen, 1990; Logue & Rivinus, 1991). Nonetheless, the correlates of competence in children exposed to various risk factors (such as a parent's mental illness) suggests that there are broad protective factors, such as the child's intellectual functioning and the quality of parenting, that contribute to better developmental outcomes (Masten & Coatsworth, 1995). The promotion of positive relationships between a child and his or her family, school, and the broader community is critical to increasing the resiliency of children (Hawkins, et al., 1992). The greater the number of protective factors present in a child's life, the more resilient that child is likely to be (Howard, Dryden, & Johnson, 1999). Furthermore, knowledge of protective factors in the context of cumulative risk allows for the development of interventions that draw upon environmental and personal resources that facilitate better outcomes for individuals coping with drug-related problems and stress (Loxley, et al., 2004). Protective factors, like risk factors, can be related to the individual, the family, and the wider community, including the sociolegal context in which drug use occurs (Cleaver, et al., 2011; Mitchell, et al., 2001; Spooner, 1999; Spooner, et al., 2001; Spooner & Hetherington, 2004).

Individual resources.

Kroll and Taylor (2003) identified the following broad protective characteristics that foster resilience in children: secure attachment; positive temperament; absence of neurological problems, early loss, and trauma; good problem-solving skills; social awareness and empathy; goal directedness; internal locus of control; the ability to use adults as resources; spiritual or religious faith; good verbal skills; and a good sense of humour. Personal resources can include: self-efficacy; coping skills; accurate understanding of specific risks; general health behaviour; and a personality capable of withstanding social pressure (WHO, 2004). The child's cognitive (e.g., language acquisition; reading; capacity to plan; self-efficacy; self-understanding; and adequate

cognitive appraisal) and emotional competence (e.g., emotional regulation; ability to delay gratification; appropriate self-esteem; creativity; a sense of humour) are important in preventing adolescent drug problems (Spooner, 1999; Spooner, et al., 2001). A child's attractiveness, personality, and intelligence, as well as the provision of support from others, contribute to positive self-esteem and resiliency (Cohler, Stott, & Musick, 1995) as does successful school performance (Kandel & Davies, 1992).

The impact of drug use can also be mitigated by protective personality attributes in the mother. For example, specific aspects of conventionality, such as low-sensation seeking and high educational expectations were found to moderate the effects of cannabis use on the parent-child bond in a small nonclinical sample of young parents (Brook, Whiteman, Balka, & Cohen, 1995). Some findings suggest that individuals with a preference for cannabis over other drugs might differ from controls on a number of social values and personality variables (Weckowicz, Collier, & Spreng, 1977; Weckowicz & Janssen, 1974). Cannabis users scored higher on measures of selectivity of attention (i.e., speech shadowing & selective listening tasks) and those who used cannabis were rated as slightly more introverted, radical, self-accepting, and critical of prevailing social systems. Hence, examination of parental personality is important when assessing drug use in the context of child rearing, as such variables can act to either mitigate against or increase the risk of problematic drug use developing.

Family strengths.

Kumpfer and Alder (1998, as cited in Spooner, 2001) identified five major types of protective processes within families: supportive parent-child relationships; positive discipline methods; adequate monitoring and supervision; family advocacy for their children; and seeking information and support for the benefit of their children. Kroll and Taylor (2003) identified the following additional family level characteristics that foster resilience in children: the availability of at least one stable, nurturing caregiver; maintaining family rituals and structured activities; low parental tension and minimal family discord; high self-esteem of parents; consistently enforced family rules; adequate economic status; treatment for drug problems and attempts to abstain; and good communication between parents and children. The current review suggested that parental monitoring, parent-child attachment, and parental support were particularly important in reducing the likelihood that an individual would develop problematic drug use. Barnard and McKegany (2004) found that negative outcomes for children were less likely to occur when a parent's use of illegal drugs was well controlled and the drug dosage was stable and well managed (Barnard &

McKeganey, 2004). Commitment to one's family and religion helps to minimise initiation into illegal drug use and commitment to school reduces the risk of escalation to problematic levels of use (Kandel & Davies, 1992).

Community support.

Although social inequality and class differences contribute to the risky use of psychoactive drugs, community resources can mitigate against poor outcomes through factors such as the availability of social support, social integration, the provision of positive role models and financial support (WHO, 2004). The provision of community-based programs, particularly for adolescents but also for users that are parenting young children or marginalised through race or SES, can assist by providing a safe and healthy social environment that encourages people to enjoy themselves without the use of drugs (WHO, 2004). Kroll and Taylor (2003) identified the following community-based protective factors: positive, nurturing school experiences; the availability of supportive adults to serve as role models and caregivers; cultural connection, value, and identity; a socially rich environment; the involvement of well-functioning community members; and the provision of community resources (e.g., childcare, health care, education, leisure facilities, and public transport).

Discussion and Conclusions.

The extant research is unanimous in finding that parental drug use has the capacity to adversely affect developmental outcomes for children (Horgan, 2011) yet there has been remarkably little research that directly addresses the question of the mechanism by which illegal drug use impacts on parenting (Mayes & Sean, 2002). Most of the literature concerning illegal drug use has been undertaken in the USA where drug availability and patterns of use are likely to be quite different to those in Australia. During the 1970s American research focused on the use of opioids (heroin and methadone) followed in the 1980s by a strong focus on the use of cocaine (especially in its smokeable "crack" form) (Smeriglio & Wilcox, 1999). Hence, the majority of longitudinal empirical research pertains specifically to the effects of being exposed in-utero to opioids or cocaine. Furthermore, most American research was funded or conducted by government agencies (Smeriglio & Wilcox, 1999) in the context of a 'zero tolerance' policy toward illegal drug use. Hence, researchers might be biased toward finding or exaggerating the clinical importance of effects and, of course, publication bias occurs; studies that fail to find detrimental effects are rarely presented in the literature (Koren, Graham, Shear, & Einarson, 1989; Zimmer & Morgan, 1997).

Many studies are methodologically problematic, particularly in terms of inadequate control for confounding risk factors and there is a tendency for retrospective studies to conclude with sweeping generalisations (Inciardi, et al., 1997). Furthermore, the bulk of research to date has drawn on clients from convenient settings that cater to arguably those most severely affected by drug use but who are not necessarily representative of the broader population of drug users (Mayes & Sean, 2002). Literature often refers broadly to parental 'drug' use or 'substance' use despite being based on a specific drug, such as heroin or methadone. It is misleading to suggest that findings from parents that primarily use heroin can be generalised across other drug types and lifestyles (e.g., cannabis) (Mayes & Sean, 2002). At this stage the literature does not support such a generalisation (Gossop, 2007).

The confounding variables identified in this review included: SES; lifestyle; level of drug use; drug-specific risks; criminal involvement; child abuse and neglect; family violence; mental illness; caregiving arrangements; parental age, IQ, and educational level; a range of parenting variables (i.e., attachment, interactions, attitudes, parenting styles); and social support. These variables point to the context in which drugs are used and the multiplicity of risk factors that children of drug users might be exposed to (Mayes & Sean, 2002). Any assessment of parental drug use should examine such contextual variables, which might be more important in predicting child outcomes than drug use *per se*. The family is a significant mediator of adverse outcomes (Spooner, et al., 2001) influencing important protective factors, such as attachment and school involvement (Dawe, et al., 2006). Maternal personality traits, patterns of child care, the quality of mother-child interactions, and the level of stress in the household are also important variables in the assessment of risk for children of drug users (Kaltenbach & Finnegan, 1984).

The concept of 'cumulative risk' is well established in developmental psychology and suggests that the total number of risk factors that a child is exposed to, rather than any one specific risk factor, is important in predicting long-term child outcomes (Anda et al., 2006; Hawkins, et al., 1992; Masten & Coatsworth, 1995; Rutter, 1979; Sameroff, Seifer, Baldwin, & Baldwin, 1993; Swaim, 1991; Tronick & Beeghly, 1999). Family factors are critical in the initiation of drug use and the development of problematic use (Beyers, et al., 2004; Bond, Thomas, Toumbourou, Patton, & Catalano, 2000; Hayes, et al., 2004; Magura & Laudet, 1996; Mitchell, et al., 2001; Spooner, et al., 2001; Toumbourou, 2002; Velleman, Templeton, & Copello, 2005; Vimpani & Spooner, 2003). Hence, any assessment of the parental capacity of drug users needs to be grounded in a broader understanding of family dynamics and community support, as well as

the general health and psychological functioning of family members, rather than being narrowly focused on the issue of drug use. Furthermore, the age and developmental stage of the child when parents are using is important in determining the probable risks associated with any drug-related problems in the family (Cleaver, et al., 2011).

Chapter III - Rationale for the Current Research

Empirical evidence supporting links between cannabis use and harmful outcomes (as detailed in Chapter I and II of this thesis) has been growing (for recent reviews, see Hall, et al., 2001; Ramstrom, 2004; Swift, et al., 2000) and regardless of ongoing debate about causal relationships, emerging evidence reveals a strong relationship between cannabis use and adverse psychiatric outcomes (Arseneault et al., 2002; Degenhardt & Hall, 2006; Hall & Degenhardt, 2006; Patton et al., 2002; Rey & Tennant, 2005). Cannabis-related harm, like other drug-related harm, varies depending on factors related to the drug, the individual, and the environment in which the drug is used (Zinberg, 1984). Cannabis-related disorders are detailed in the Diagnostic and Statistical Manual of Mental Disorders 5th Edition (American Psychiatric Association [APA], 2013) and trends indicate increased treatment-seeking for problem cannabis use (AIHW, 2006, 2011; Copeland, 2012). Hence, the potential for cannabis to impact on a user's mental health is widely recognised by clinicians, however, debate about the exact nature and extent of cannabis-related harm has hindered the provision of harm reduction initiatives (Swift, et al., 2000).

Harm Reduction

In the US, a conservative political environment has promoted abstinence-based approaches (e.g., detoxification, 12-step programs) to drug use, whereas since 1985 Australian drug policy has incorporated a harm-minimisation approach that includes strategies aimed at supply reduction, demand reduction, and harm reduction (DHAC, 2001). Harm minimisation refers to the overall goal and underlying philosophical approach to drug use, whereas harm reduction refers specifically to the interventions, strategies, and policies through which harm minimisation can be achieved (Lintzeris & Spry-Bailey, 1998). Interventions to reduce problematic drug use usually involve a lengthy and complex process aimed at changing behaviours and reducing as many problems as possible over time (NCETA, 2004). The harm reduction approach recognises that drug users do not always view abstinence as an immediate or even desirable goal (Fry, Treloar, & Maher, 2005). Hence, harm reduction is defined by its central focus on the net reduction of drug-related harm rather than on the reduction of actual drug use (Fry, et al., 2005; Lenton & Single, 1998). Harm reduction strategies are intended to reduce harmful outcomes to the user, which should indirectly benefit the user's family and the wider community (Copello, et al., 2000; Dear, 1996). Harm reduction research has focused on the development and evaluation of strategies for reducing the harms associated with intravenous drug use. Examples of harm reduction strategies include the provision of information about safer ways to use drugs, needle exchange programs,

and pharmacotherapy, which are intended to promote a safer environment for those who use drugs (NCETA, 2004; Single, 1995). Harm reduction strategies have also been central to public health campaigns targeting alcohol-related harm (e.g., the provision of 'safe' drink-driving levels). According to Bennett (2008) the provision of harm reduction information allows users to make informed decisions based on accurate information. Very little attention, however, has been directed toward the development of harm reduction strategies to assist people in managing their cannabis use (Bennett, 2008; Hathaway, et al., 2009; Swift, et al., 2000).

Why Cannabis?

Probable harms related to long-term regular cannabis use include respiratory problems; impaired immune and reproductive function; decreased memory, learning abilities, motivation, and concentration; as well as problems related to dependence and withdrawal (AIHW, 2006; Hall, et al., 2001; NCETA, 2004; Ramstrom, 2004; Swift, et al., 2000). Areas of greatest concern are the relationship between cannabis use and psychological problems, such as depression, psychosis, and suicide; the link to motor vehicle crashes; and the use of cannabis by vulnerable populations. Increasing social tolerance of cannabis use, together with increased availability, potentially more potent forms of cannabis, increasingly younger cohorts of users, and rising numbers of daily users, means that corresponding increases can be expected in terms of cannabis-related harm (Dennis, et al., 2002). There is little doubt that large cohorts of adults, young adults, and adolescents exist for whom regular cannabis use is likely to be associated with considerable harm to their health, occupational, and social functioning (AIHW, 2006; Dennis, et al., 2002). This is reflected in Australian statistics, which suggest that widespread acceptance of cannabis use is coupled with increased levels of cannabis-related problems (AIHW, 2005, 2006). These trends have seen the emergence of Australia's first National Cannabis Strategy, which was intended to direct attention to the various health, psychological, and legal factors associated with cannabis use (Ministerial Council on Drug Strategy [MCDS], 2006). High risk groups of cannabis users include adolescents, indigenous Australians, pregnant women, and those with respiratory or cardiovascular disease or a comorbid psychological disorder (NCETA, 2004). Such users may benefit from the provision of accurate and non-judgemental harm reduction material.

The provision of evidence-based information and harm reduction strategies for cannabis represents an area of unmet need (Bennett, 2008; MCDS, 2006; Swift, et al., 2000). Areas that might be targeted for harm reduction include: safer modes of administration (e.g., use of vaporisers, safer joints, less risky modes of inhaling); encouraging moderate use; information

about mixing cannabis with other drugs; cleaning of bongs and pipes; and drug-driving education (Bennett, 2008). To date, harm reduction information for cannabis users has often originated from unofficial sources, such as user groups and websites, rather than being endorsed by official government health sources (Bennett, 2008). The validity of such information cannot be determined, particularly in the absence of relevant research; hence, cannabis-related harm reduction material is usually based on common sense rather than evidence. For example, the use of a bong rather than a joint has often been touted as the safer mode of administration, yet laboratory research suggests that this might not be the case (Gieringer, 1996; Gieringer, 2001, 2004). Given the large numbers of people using cannabis research that addresses the effectiveness of harm reduction strategies for cannabis users might be of value.

The current literature review identified only two sources of harm reduction strategies for cannabis users. Sydney (2003) offered four “common sense” strategies for cannabis users: discouraging teenagers from using; not operating machinery or motor vehicles; not using excessive quantities; and warning people not to use cannabis if they have coronary heart disease (Sydney, 2003). The other source of harm reduction information related to cannabis was found in an article by Swift, Copeland, and Lenton (2000). These authors linked harm reduction strategies to specific harms. For example, they suggested that if users were prone to anxiety or paranoia, they should set limits on the amount they smoked; not mix cannabis with other drugs; and smoke in a safe environment with trusted friends. Swift et al. also identified harm reduction strategies related to psychomotor impairment (e.g., not operating machinery), respiratory harm (e.g., use of vaporizers), cognitive impairment (e.g., limiting consumption the night before an important task), and legal harm (e.g., not smoking in public or with strangers). These two documents address a range of potential areas in which a harm reduction approach might be useful, indicating that a comprehensive approach should cover diverse aspects of the user’s life (health, legal, work, relationships, etc.).

A Community Sample

Findings related to parental drug use are generalised from research that has predominantly involved recruitment of participants from drug treatment services, however, only a small percentage (<10%) of drug users ever receive formal treatment for AOD problems (Narrow, Regier, Rae, Manderscheid, & Locke, 1993). The majority of cannabis users do not seek treatment or professional support related to their cannabis use (Agnosti & Levin, 2004; Kwong, et al., 2010) and those who decide to reduce or cease their use of cannabis often have little difficulty doing so, even

when they have been using high-doses frequently (Kandel & Davies, 1992). Treatment settings cater to a minority of drug users and tend to serve the poorest, most visible, and most problematic drug users (Waldorf, Reinarman, & Murphy, 1991). For example, a comparison between cocaine users in treatment and those who were untreated found that those in treatment had higher levels of mood disorders, poorer social functioning, more family problems, and greater negative consequences associated with their drug use (Carroll & Rounsaville, 1992). Hence, the extent to which findings from these populations can be generalised to the wider community of drug users is questionable given that they might not be representative of the majority of drug users (Barnard & McKeganey, 2004).

Very little is known about drug users who are able to manage their drug use without entering treatment or coming to the attention of child welfare authorities (Barnard & McKeganey, 2004), which arguably represents the majority of cannabis users. Those few studies involving drug users who have managed to control their drug use have focused on the use of cocaine (Waldorf, et al., 1991), heroin (Forrester, 2000; Zinberg, 1984), and ATS (Lende, et al., 2007) and they have examined the consequences of drug use for individual users rather than for their children and family members. There is a need to know much more about the issue of controlled drug use in general and the use of cannabis in particular.

The Family Perspective

Research indicates that the family plays a key role in the aetiology of drug use problems and is a significant factor in the prevention and treatment of such problems (Dawe, et al., 2008; Mitchell, et al., 2001; Velleman, 1996, 2009; Velleman, et al., 2005). Research about illegal drug use in the context of parenting has focused on the use of opioids (Barnard & Barlow, 2003; Hogan & Higgins, 2001; Hogan, 1998; Kearney, et al., 1994), amphetamines (Klee, 1998; Klee, et al., 2001), and cocaine (Boyd, 1993; Boyd & Mieczkowski, 1990; Hawley, et al., 1995; Hogan, 1998) and there is no published research examining the use of cannabis by individuals who are raising children.

Australian statistics suggest that approximately one child in ten lives in a home in which a parent is misusing alcohol or other drugs, including approximately 40,000 Australian children who live in homes where at least one parent is a daily cannabis user (Dawe, et al., 2006; Fry, Dawe, Harnett, Kowalenko, & Harlen, 2008). Furthermore, the majority of research about drug use in the family has been carried out in the UK (Bancroft, Wilson, Cunningham-Burley, Backett-Milburn, &

Masters, 2004; Barnard & Barlow, 2003; Barnard & McKeganey, 2004; Hogan & Higgins, 2001; Hogan, 1997; Horgan, 2011; McKeganey, et al., 2002) and the USA (Boyd, 1993; Boyd, 1999, 2000; Kearney, et al., 1994) rather than Australia. The need for Australian research to better understand the role of families with drug problems was identified as an area of priority by the National Illicit Drug Strategy (Mitchell, et al., 2001). Substance use disorders are transmitted across generations of family members, through shared heritability and social environment (Horgan, 2011). Thus, the family is an important source of information for understanding the intergenerational transmission of drug use and it is essential that the needs of children of drug users are recognised so that clear policy and family-focused treatment models can be developed (Dawe, et al., 2008). The current study, therefore, adopted a mixed qualitative methodology to learn more about the use of cannabis within families.

The use of psychoactive drugs is linked to considerable social and personal problems, which cut across all domains of functioning, including employment, psychological and physical health, personal relationships, and family life, and there is a widely held assumption that drug users do not make adequate parents (Boyd, 1999; Ettorre, 1992; Inciardi, et al., 1997; Klee, 1998; Klee, et al., 2001; Murphy & Rosenbaum, 1999). Interest in the impact of drug use on children has been growing as a result of research that identifies problem drug use as a critical factor in parenting capacity (Cleaver, et al., 2011) and because parental drug use is frequently cited as a major factor in child welfare cases (Hampton, et al., 2002; Harbin & Murphy, 2000; Inciardi, et al., 1997; Jaudes, et al., 1995; Leek, et al., 2004; Scannapieco & Connell-Carrick, 2007). However, until recently research and treatment has focused quite narrowly on the reduction of drug use behaviour by the drug using individual with very little consideration given to measuring or reducing any harm to the user's family and especially their children (Horgan, 2011; Kroll & Taylor, 2003; Velleman, 2009).

Over 70% of parents attending a Melbourne treatment centre reported that exposure to their drug use had been distressing for their children (Gruenert, et al., 2004) yet very little research has directly considered children's perceptions of living with parents who use illegal drugs (Phillips, 2004) but rather has relied on parent and teacher reports (e.g., Hogan & Higgins, 2001; McKeganey, et al., 2002). In a review by Gorin (2004) only one published study was identified (i.e., Barnard & Barlow, 2003) that included the perspectives of children (n=36) from families with parental drug use (as opposed to alcohol use) and parents in this study were mainly opioid users. Barnard and Barlow found that although parents tried to conceal their drug use from their children, they generally knew about their parent's drug use in more detail and from an earlier age

than parents realised by piecing together various pieces of information over time (e.g., sighting drug paraphernalia, noting dramatic mood swings).

Children tended not to raise the issue with their parents because they were either rebuffed at first mention of it, thought that it was not their place to do so, or were scared to mention it. Therefore, a 'conspiracy of silence' occurs in which illegal drug use is concealed and discussion of the topic is prohibited (Barnard & Barlow, 2003; Kearney, et al., 1994; Kroll, 2004). On the rare occasions when a parent had discussed his or her drug use with their child, it was usually in the context of a medical frame (e.g., parent takes medicine; has an illness). Children were intuitively aware of the need for secrecy about their parents' drug use and made up stories to normalise their home life while keeping peers and others away. Barnard and Barlow argued that keeping this family secret led to isolation from social supports. Children who discovered their parents were using drugs felt sad, hurt, and angry and the ongoing experience of exclusion due to drug use caused children to feel that they came second to their parent's drug use. Children also experienced fears and anxiety related to their parent's safety because they knew that drugs were dangerous but they were powerless to intervene (Barnard & Barlow, 2003). The voices of children who live in families where parents are drug users need to be heard and it is important that children are provided with an opportunity to express their views, which will assist in understanding the child's perspective and to better formulate interventions that meet the needs of such children and families (Bancroft, et al., 2004; Barnard & Barlow, 2003; Dawe, et al., 2006; Kroll, 2004; Phillips, 2004). Hence, the current study sought to obtain data from children as well as parents.

Research suggests that parents who use illegal drugs are aware of the risks that their drug use poses to their children and employ various harm reduction (or compensation) strategies to minimise the likelihood of their children being adversely effected by their drug use (Kearney, et al., 1994; Klee, 1998; Klee, et al., 2001). Like people who control their alcohol use, drug users often develop rules about how and when they use drugs, such as only using at parties or on weekends and not using when they have to work or when they are alone (Gossop, 2007). Kearney, Murphy, and Rosenbaum (1994) interviewed 68 cocaine-using mothers who were not engaged in treatment and found that they tried to keep their children and their mothering role physically separate from their drug use and their drug user identity, including keeping themselves apart from other drug users and separating drug money from household money. Other harm reduction strategies have included careful attention to the storage of drugs and drug-related paraphernalia (e.g., syringes,

bongs) (Klee, 1998). Just as these women identified useful strategies for controlling their drug use and reducing the likelihood of harm to their children, parents whose cannabis use is well controlled are likely to be adopting similar strategies in the management of their cannabis use. Hence, the major focus in the current study was on identifying such harm reduction strategies.

The Current Research

In summary, cannabis is more widely used than other illegal drugs yet there is almost no literature related to its use within families, apart from a small literature that focuses on correlations between parental cannabis use and adolescent cannabis use. Although the literature suggests that long-term cannabis use increases the risk of developing psychological or social problems, there is a lack of empirically informed harm reduction strategies available for families. This research makes a unique contribution to the literature by describing the role of cannabis, and the benefits and harms of its use, as perceived by parents who are regular cannabis users. Qualitative data was collected from parents who were cannabis users, as well as from their partners and children, some of whom were also cannabis users.

The main objective of the current research was to describe any harm reduction strategies adopted by adult cannabis users living with adolescent children, and to consider how effective such strategies were, from the viewpoint of other family members and in relation to empirical evidence. A review of the literature identified few data on the impact of cannabis use on family functioning and very little evidence-based information on harm reduction for cannabis users and their families. The current study begins to address this area of unmet need by exploring the harm reduction strategies adopted by cannabis users in a small community sample. Furthermore, the current study endeavours to overcome some of the limitations inherent in previous research by focusing on cannabis users as opposed to polydrug users, and by undertaking interviews with children of cannabis users rather than children of heroin users or problem drinkers, as well as by drawing from a community sample rather than a treatment sample. Beginning to understand the perspectives of such families puts us in a better position to formulate and prioritise theoretically grounded research questions pertaining to cannabis use.

The current study identified strategies adopted by parents to minimise harmful outcomes to themselves and other family members due (directly or indirectly) to their cannabis use. Interviewing family members who were living with cannabis users allowed for initial exploration of the potential effectiveness of any harm reduction strategies practiced by cannabis users.

Interview content was analysed using an interpretive framework guided by Miles and Huberman's (1994) thematic content analysis. Interviews were also analysed from a family systems perspective allowing the perceptions of multiple family members to be compared and contrasted. Findings are discussed in relation to the literature on cannabis use, parental drug use, and the risk and protective factors associated with adolescent drug use.

Chapter IV - Method (Study 1)

Research Aims

The aims of the current research were to (1) describe the benefits and harms of cannabis use as perceived by parents who were long-term cannabis users and (2) to identify any harm reduction strategies that they used to minimise cannabis-related harm to self or family.

Researcher Assumptions

My personal worldview is consistent with postmodernist scholarship, which emphasises the social construction of knowledge and the relational nature of objectivity (Gergen, 2001). According to this paradigm, what we view as fact and what we believe to be true about human functioning are essentially culturally agreed upon and historically situated social constructions (Gergen, 2001; Patton, 1999). Research conducted from this epistemological position seeks to set aside the dominant discourse to explore a given phenomenon in ways that might provide “new and more viable constellations of meaning” (Gergen, 2001, p.807). This approach emphasises the difficulties of separating fact from value judgements because any interpretation of data invariably occurs within a context of shared understandings, language, and sociocultural practices (Gergen, 2001; Schwandt, 2003; Silverman, 2001). From this perspective, there is a strong argument for reflexive accounts of the researcher’s position and values so that the reader has some indication of the lens through which the data has been interpreted (Henwood & Pidgeon, 1995; McGraw, Zvonkovic, & Walker, 2000; Olesen, 2003; Patton, 1999).

My choice of research topic was strongly influenced by my current and past employment, which has seen me working for many years with families affected by considerable social problems, with the misuse of drugs and alcohol being a prominent feature in many cases. My views about ‘good enough’ parenting have developed in the context of working with families in which children have been subjected to a wide range of harms, including global neglect and extremes of physical, emotional and sexual abuse. Hence, my views about what constitutes nonproblematic levels of cannabis use and consequent harm are likely to have been coloured by long-term exposure to this client group. Prior to my current employment as a clinical psychologist in a child welfare setting, I worked for a number of years in a women’s health service funded to support women and children in families with problematic drug use. In this setting I was introduced to feminist research and a feminist approach to public health that emphasised the social and cultural context of women’s drug use and the unique needs of women with drug-related problems and their children. It was

within this setting that I came to develop an appreciation of the notion of harm reduction (as discussed in Chapter III) that is central to Australian drug policy (DHAC, 2001).

It should be noted that this thesis sets out to describe and discuss the views of the participants (including their views about cannabis legislation and perceived lack of harmful effects) *views which are not necessarily those of the researcher*. There is no intention on my part to present my political views or advocate for changes to the way Police in WA deal with the issue of cannabis. As well as being central to my thesis, which is about adopting a harm reduction approach to cannabis use, my personal ideological stance toward drug-taking sits squarely within a harm reduction approach. I am a realist and a pragmatist who recognises that drugs have been around throughout history and that new types of drugs are being constantly developed and there is no reason to expect this to change in the future. I am strongly influenced by Gossop whose work emphasises the constant but changing nature of drug problems and the implications of policy aimed at social control of drug use (see Chapter I). Problems arise through the way that certain drugs are used rather than because some drugs are necessarily more harmful or problematic than others. I believe that the provision of harm reduction information helps drug users to make informed choices based on accurate information (Bennett, 2008). I recognise the normative nature of drug and alcohol use by teenagers and young people and rather than being a contemporary problem I understand that throughout history people have used drugs to alter their state of consciousness. At the same time, I have seen firsthand the significant problems that drug use can lead to, not only for those individuals who feel the need to lose themselves in drugs, but also the serious implications of such choices for their families, especially their children. I hope that my research will benefit others by contributing to a greater understanding of the use of cannabis by those who are raising children.

Research Design

Choice of qualitative paradigm.

A qualitative methodology and interpretive paradigm were selected to acquire direct input from cannabis users and their families concerning their perceptions about the benefits and harms associated with using cannabis in the context of parenting and the family. This approach encompassed a phenomenological perspective emphasising the social construction of reality by and between those persons who experience it (Berger & Luckman, 1966; Gergen, 1999). This method of enquiry asks that we accept and value the subjective experience of the phenomena as described by the participants (Darlaston-Jones, 2007) and it allows for the feelings, strengths,

behaviours, and experiences of the participants to be discovered (Patton, 2002). The postmodernist view of social constructionism embraces the idea of historical and cultural context in the construction of identity and ideology (Gergen, 2001; Turiel, 1989) and this fits well with the current study's goal of exploring cannabis use within the context of contemporary family and parenting roles. This approach is particularly useful when endeavouring to understand phenomena from the consumer's perspective and when little is known about the topic. A qualitative approach has been found particularly useful in demystifying AOD use (Neale, Allen, & Coombes, 2006). Hence, a mixed qualitative approach was adopted to explore the role and meaning of cannabis use by parents who still had children living at home.

Choice of method.

The current research utilised a series of family case studies to obtain multiple perspectives about the use of cannabis by parents of adolescents and young adults. Participant families were sought that could (where possible) provide a prospective, rather than a retrospective, account of living with a parent or partner who is a regular cannabis user. In studies of family life, agreement between reports made by parents and their children tends to be low to moderate and levels of agreement are even lower when topics are considered threatening or when they activate social desirability biases in parents (Jessop, 1981). In fact, agreement within families tends to be at its lowest when children and parents are reporting on topics related to drugs (Jessop, 1981). Few studies have used open-ended interviews to explore parents' perceptions of how their drug use affects their children (Mayes & Sean, 2002). The use of semi-structured interviews allowed for the collection of detailed data in which the various perspectives and differences in attitudes within families could be explored. Although parents are known to make efforts to protect their children by separating from their children when using drugs, the extent to which such efforts are successful is not known (Klee, 1998). The issue of what should be revealed about their drug use and when is also an important issue faced by parents who use illegal drugs (Klee, 1998). Having input from various family members provided a useful way of checking the extent to which perceptions differed between family members and allowed for a greater understanding of cannabis use within the family because interpretations encompass an appreciation of not only the user's perspective but also that of other family members.

Ethical considerations

This research was approved by the Edith Cowan University (ECU) Human Research Ethics Committee and the Faculty of Computing, Health, and Science.

Confidentiality.

Participants in this research were asked to disclose information of a highly sensitive and personal nature. To protect their confidentiality only the researcher is aware of their identity. All interviews and transcriptions were carried out by the researcher and audiotapes were deleted upon complete transcription of each interview. Pseudonyms were used throughout the research and reporting process, and care was taken to ensure demographic information was not reported in a manner that could lead to the identification of participants. Transcripts labelled with pseudonyms are retained in a locked filing cabinet in the researcher's home. By necessity, contact details were obtained so that interviews could be arranged. Contact details were retained for follow-up/validation purposes and the researcher made it clear that to carry out this final step it would be necessary to retain contact information until completion of the project. Contact information was stored separately to the participant's transcript and demographic information and was destroyed upon completion of the interview and feedback process.

The researcher also recognised a duty of care toward adolescent participants, whereby it was important not to disclose information (such as that child's use of drugs) that might create negative consequences for the child involved. A similar duty arose in families where the children were not aware that their parent used cannabis; these children were informed that the research was about the experience of growing up in different kinds of families. This allowed for exploration of the child's perceptions of home life and parenting without disclosing parental cannabis use. Extra care was taken to maintain confidences such as these and there are implications for publishing the data, as some family analyses might need to be withheld from the public domain, otherwise a family member reading the publication (such as a library copy of the thesis) might recognise their family and thereby access data from other family members.

Informed consent.

To respect confidentiality, participants were not required to sign an informed consent form. Instead, they received a copy of the *Letter of Introduction* (Appendix D) and the *Participant Information Sheet/Interviewer's Agreement* (Appendix E) signed by the researcher. The items listed on the agreement were used as a checklist by the interviewer, who raised each point with participants on the taped record prior to interviews occurring. In this way, participants were made aware of the conditions of participation, such as being voice recorded and the use of pseudonyms. Participants were informed that they were free to refuse to answer any of the questions, as well as free to withdraw from the research at any stage. Hence, proceeding to the main interview

questions constituted receipt of informed consent. This method of obtaining informed consent allowed participating families a greater level of confidentiality because documents containing participants' signature and names were not retained.

Parental consent to interview minors, including the nature of such discussions (that is, whether cannabis use would be discussed or not) was also obtained on the taped record. The formal process of obtaining informed consent (as described above) was used with all children regardless of their age. Therefore, the child's informed consent, as well as the parent's, was obtained, although some children were not told that the research was about parental cannabis use. Some were simply told that the research was about the experience of growing up in different kinds of families. Some were told that the study was about families but that it also encompassed attitudes to cannabis use. This way participating children could be approached differently depending on their age and their knowledge or otherwise about cannabis use. How the study was framed was always discussed and agreed upon with parents prior to interviewing children.

Inducing distress.

Parents who use illegal drugs are known to experience guilt, shame, embarrassment, and regret around their use of drugs when parenting. Hence, the interviewer endeavoured to create a comfortable and non-judgemental context for interviews. The precise nature of the questions, including actual interview questions, was made clear to participants from the outset. Prior to commencing interviews, participants were reminded that they could withdraw from the research at any stage and could refuse to answer specific questions as they saw fit.

Being asked questions about illegal drug use in the context of parenting held the potential to bring up strong emotions in participants. Therefore, a referral process was put in place for participants that might require or request counselling following their interview. The researcher was prepared to pause or stop the interview if any participant appeared to be suffering undue emotional distress. Distressed participants would be encouraged to access counselling and the researcher was prepared to provide referrals and organise appointments as necessary. One participant did experience strong emotions during interview, however, she was engaged with a treatment service and had already arranged an appointment with her counsellor immediately following the interview. This participant's distress was related to discussing her experience of being introduced to cannabis in the context of childhood sexual abuse.

An information pack containing Health Department material about cannabis use, together with service brochures and contacts for sources of support was offered to all cannabis-using participants and relevant family members.

Child welfare concerns.

In exploring illegal drug use and parenting there was a risk that the researcher might identify child welfare concerns. Participants were, therefore, informed at the outset that normal limits of confidentiality would apply and they were told that if child welfare concerns were identified these would need to be addressed. As it turned out, there were no child welfare concerns identified.

Participants**Recruitment strategies.**

Participants were initially recruited through promotion of the research by local drug treatment services and through snowball sampling (Berg, 1989; Kemmesies, 2000) in which identified participants were invited to introduce the researcher to other cannabis users. The intention of snowballing was to locate families who were not in contact with drug service providers, however, the inclusion of some cannabis users who were currently in contact with services was encouraged, as such individuals were likely to have different (or greater) knowledge about harm reduction.

Much of the AOD literature is based on research conducted with samples of drug users drawn from AOD treatment services. Such services were traditionally aimed at problems associated with alcohol and heroin use, and those who attend such services frequently have extensive histories of drug use, coupled with related financial, legal, and child welfare problems. Such users arguably represent the extremes of drug use yet drug use is widely recognised as occurring on a continuum from occasional to dependent use. These and other limitations in the AOD literature mean that little is actually known about the role of cannabis within contemporary families and younger cohorts. For this reason, in the current study the number of families where a parent was receiving treatment for problems associated with drug use was restricted to four (approximately one-third of the final sample) to allow for diversity within the sample. There is evidence that some individuals who use illegal drugs adopt a functional and controlled pattern of drug use (Forrester, 2000; Lende, et al., 2007; Waldorf, et al., 1991; Zinberg, 1984) and given the difference between the overall level of cannabis use and treatment seeking for cannabis use, a

predominantly non-clinical based sample was expected to identify cannabis users who were not experiencing drug-related problems.

The final sample included only one participant who was actually engaged in cannabis-related treatment. This person was a daily cannabis user who was parenting a toddler; she had nominated her mother as the cannabis-using parent for the purposes of this research. There was one additional participant who was recruited through an AOD treatment service, however, she had exited treatment approximately 6 months prior to being interviewed. Furthermore, her treatment was actually related more to her former partner's drug use than her own cannabis use. There were also two families included in which the partners (rather than the cannabis-using parent) were in treatment for drug use. Thus, four participant families were recruited through drug treatment services, although none of the nominated cannabis users in these families was in treatment at the time the study was conducted. Nonetheless, these four families might be expected to be experiencing more problems than those participants who were recruited from the wider community. Snowball sampling from these participants produced three additional families who had no contact with treatment providers. Hence, in the current study, snowball sampling produced few new recruits. This was probably because cannabis users in the present study had limited cannabis-using social networks and those friends who did use cannabis did not usually have children of the right age living at home.

In addition to promotion of the research within AOD settings, *research flyers* (see Appendix B) were also displayed on noticeboards around Edith Cowan University (Joondalup campus) and at some local shopping centres in the Northern suburbs of WA. One participant was recruited from the advertisements on campus, however, the flyers placed on community notice boards failed to secure any participation and tended to be removed from noticeboards quickly. As recruitment to the project was slow, a *media release* (see Appendix C) was produced which eventually saw a number of short articles appear in local community newspapers over a period of 2 months. The newspaper articles resulted in several interviews on talkback radio (ABC, 6PR, RTR-FM) to promote the research and encourage participation. Two participants were recruited through the newspaper articles and three participants contacted the researcher in response to the radio promotion.

Reimbursement.

In the interest of reciprocity, participants received token reimbursement (a \$20 gift voucher redeemable at major stores) for the time and effort associated with their participation.

Reimbursement was in line with other research undertaken within the local drug and alcohol sector and was intended to act as an incentive to increase participation rates. However, consistent with literature (Fry et al., 2006; Morse, 2005; Russell, Moralejo, & Burgess, 2000) regarding the appropriateness of paying participants, reimbursement was primarily intended to foster a sense of reciprocity between the researcher and interviewee, and constitutes acknowledgement that the participant's time and contribution was valuable.

Inclusion criteria.

The use of an interpretive paradigm allows for a small, purposive sample of information-rich participants to be identified as an ideal set (Langridge, 2007; Patton, 2002; Sarantakos, 1993). Participant families were required to have at least one parent who was currently using cannabis and who had used cannabis at least once a week for a period of 6 months or longer. This criterion was intended to encompass parents who were regular users, rather than casual or occasional users who are less likely to experience problems associated with their cannabis use and less likely to consider harm reduction strategies. The sample was also restricted to cannabis users who did not concurrently use other illegal drugs. Cannabis users who also drank alcohol and smoked cigarettes were included because any attempt to consider cannabis use in isolation from these legal drugs would increase recruitment difficulties and produce a sample that was likely to be unrepresentative of most cannabis users.

With a view to incorporating the perspectives of children of cannabis users, the sample was originally limited to families where there was at least one adolescent or young adult currently living in the home. However, two families were included in which the adult children of cannabis users were no longer living with their parents. The adult children in these particular families had been raised by parents who openly smoked cannabis throughout their childhoods and they were keen to have their perspectives included in the current study. Ages and residential status of family members are provided in Table 1 and 2, together with other demographic information describing participant family members.

Factors such as level of cannabis use, family size and structure, use of cannabis by other family members, and levels of support were expected to vary within the sample, providing heterogeneity. Participants who met the selection criteria were accepted into the study on a 'first-come, first-serve' basis in an attempt to minimise bias caused by researcher selection of participants from a wider pool. Five participants who responded to newspaper articles were excluded on the basis that they did not have children over the age of 12 years currently residing

with them. With additional ethics approval, data was collected from 3 children under the age of 12 who had older siblings; the younger children were included for the sake of family inclusiveness.

Demographic information.

Demographic data were collected from each participant immediately prior to proceeding with interviews. Demographics were obtained verbally and recorded on the *Demographic Information sheets* (Appendix F) which were labelled using pseudonyms.

Families.

Thirteen families were involved in the current research, which included data from 19 parents in total. In two families, the data was restricted to input from the nominated cannabis-using parent because other family members subsequently withdrew their participation. Family member's stated reasons for deciding not to be interviewed were associated with not wanting to be identified as having a husband that used cannabis; not wanting to talk about her mother's use of cannabis; not wanting to risk being identified as a drug user due to his occupation; and worries that children in the family might find out about parental cannabis use because of involvement in the current research. Four families (25%) were recruited via flyers displayed at an AOD service; the other 9 represent a community-based sample that was recruited through promotion of the research on campus, in community newspapers, and on talkback radio. Families were based in the northern, southern, western, and inner city suburbs of Perth, Western Australia.

The sample included 13 nominated cannabis users who were parents and 6 partners, 3 of whom also used cannabis. Hence, 16 parents who were regular cannabis users were interviewed. The mean age of parents was 44 and ranged from 32 to 56 years. The sample included 7 parents aged between 31 and 40; 9 aged between 41 and 50; and 3 aged between 51 and 60 years. The oldest cannabis user in the current study was aged 56 and was a grandparent. Fourteen of the parents were married or living with a current partner and 5 were heading up single parent families due to relationship breakdown. The sample included 11 mothers, 3 fathers, and 5 stepfathers. Participants were all Caucasian, with 13 being born in Australia, 5 being from the UK, and one from New Zealand; all were permanent residents of Australia. Participants were from a range of socio-economic brackets, with incomes as detailed in Table 1. In four families, parent's combined incomes were below \$40,000 per annum, 6 had incomes between \$40,000 and \$100,000 per annum, and 3 families had parental incomes in excess of \$100,000 per annum. Seven of the families lived in homes owned outright or by mortgage; four families were in private sector rental

accommodation, and two families lived in public (State) housing. Demographic information about the families who participated in Study 1 is set out in Table 1.

TABLE 1

Demographic Information: 19 Parents from 13 Families

| Variable | Category | n | % |
|------------------------------|---------------------------|----|-------|
| Sex | Male | 8 | 42.1 |
| | Female | 11 | 57.9 |
| Age | 32 - 40 | 7 | 36.8 |
| | 41 - 50 | 9 | 47.4 |
| | 51 - 56 | 3 | 15.8 |
| Marital status | Married or cohabiting | 14 | 73.7 |
| | Single/separated/divorced | 5 | 26.3 |
| Relationship to young people | Mother | 11 | 57.9 |
| | Father | 3 | 15.8 |
| | Stepfather | 5 | 26.3 |
| Place of birth | Australia | 13 | 68.4 |
| | New Zealand | 1 | 5.3 |
| | UK | 5 | 26.3 |
| Race | Caucasian | 19 | 100.0 |
| Employment type | Professional | 4 | 21.0 |
| | Own business | 4 | 21.0 |

| Variable | Category | n | % |
|--------------------------|--|----|------|
| | Unskilled | 5 | 26.3 |
| | Full-time parent | 3 | 15.8 |
| | University student with part-time work | 2 | 10.6 |
| | Adult apprentice | 1 | 5.3 |
| Parent's combined income | Less than \$40,000 | 4 | 31.0 |
| | \$40,001 to \$100,000 | 6 | 46.0 |
| | More than \$100,000 | 3 | 23.0 |
| Housing status | Buying own home | 7 | 53.1 |
| | Renting privately | 4 | 31.5 |
| | Government housing | 2 | 15.4 |
| Use of cannabis | Cannabis user | 16 | 84.2 |
| | Non-user | 3 | 15.8 |

Young people.

The sample of young people consisted of 24 participants who either currently lived with or had grown up with a nominated cannabis user. Although recruitment focused on targeting individuals aged between 12 and 20 years who were currently residing in the home of the nominated cannabis user, the final sample also included 6 young people who had already left home. For the purpose of sibling inclusion, and with clearance from the ethics committee and their parents, 3 children under the age of 12 were included as participants. The mean age of the young people participating in the current research was 18 years; the oldest individual included in this subset of participants was 34 and was a mother herself. The youngest participant was 8 years old and his interview focused on his family life rather than the use of cannabis. Four of the children in

the current study were aged between 8 and 12 years; 5 were between 13 and 15; 5 were in the 16 to 19 age group; 2 were between 20 and 24; and 3 were between 29 and 34 years of age. Eleven of the participants were dependent school-aged children, 2 were dependent university students; 5 were independent (working) but still residing in the family home; and 6 were living independently of their parents. All 24 participants were born in Australia and were of Caucasian descent. Ten of the young people had used cannabis, 11 had never used cannabis, and 3 had used cannabis in the past but no longer did so. Six of the children were unaware of their parent's use of cannabis. Demographic information about the young people who participated in Study 1 is detailed below in Table 2.

TABLE 2

Demographic Information: 24 Children and Young People from 13 Families

| Variable | Category | n | % |
|--------------|--|----|------|
| Sex | Male | 10 | 41.7 |
| | Female | 14 | 58.3 |
| Age | 8 - 12 years | 4 | 16.7 |
| | 13 - 15 | 5 | 20.8 |
| | 16 - 19 | 5 | 20.8 |
| | 20 - 24 | 7 | 29.2 |
| | 25 - 34 | 3 | 12.5 |
| Independence | Dependent school-aged child | 11 | 45.8 |
| | Dependent university student | 2 | 8.3 |
| | Independent but living with parent/s | 5 | 20.9 |
| | Independent and no longer living at home | 6 | 25.0 |

| | | | |
|------------------------------------|---------------------------------------|----|------|
| Place of birth | Australia | 24 | 100 |
| Use of cannabis | Uses cannabis | 10 | 41.7 |
| | Never used cannabis | 11 | 45.8 |
| | Used cannabis in the past but stopped | 3 | 12.5 |
| Awareness of parental cannabis use | Unaware of parent's cannabis use | 6 | 25.0 |
| | Aware of parent's cannabis use | 18 | 75.0 |

Drug use histories.

Although all adults in the current study were asked to provide a drug use history, younger children were not asked to do so. A drug use history was obtained from all participants 13 years of the age or older. Three of the families (25%) were recruited through flyers placed at an AOD treatment program for women with children, however, only one of the nominated cannabis users had previously sought treatment for drug-related problems. Of the three participants drawn from the clinical population, two of them were partners of nominated cannabis users and the other was the eldest daughter of a nominated cannabis user; Tess was the mother of a toddler and she was engaged in treatment for her own cannabis use. At 34, she was the oldest individual included in the sample of young people (n=24) which had a mean age of 18 (range = 8 to 34). Fifteen of the young people interviewed were over the age of 16 and most of them were cannabis users (n= 10) or had been in the past (n=3).

Three parents ceased their long-term use of cannabis during the study. One father (Mark) entered and completed residential treatment for cannabis and alcohol-related problems during the course of the data collection period. This family were recruited through flyers in the treatment centre for women, where his wife (Tina) was attending the program due to historical drug-related problems (primarily ATS) associated with a history of childhood sexual abuse. This mother of four nominated her partner for the study as he met the criteria at the outset. She also ceased using cannabis during the course of the study as did one other mother (Madalyn) who did so without formal intervention. In total two of the nominated cannabis users and one partner ceased their cannabis use during the study.

When interviewed, 26 participants in this research were using cannabis, 10 of the young people and 16 of the parents. Inclusion criteria meant that at least one parent had to have been using cannabis regularly (defined as at least once a week) for the previous 12 months. Of these parents, 10 had been using cannabis regularly for more than 20 years and the other 3 had been using cannabis regularly for between 10 and 20 years. Hence, they were long-term cannabis users. Frequency of use ranged from weekend use only ($n=2$) to heavy daily use ($n=4$); 8 of the nominated cannabis users were using on a daily basis and 3 were using cannabis 3 to 5 days a week. Six of the parents spent less than \$25 per week to sustain their cannabis use and another 6 spent more than \$25 but less than \$75 per week; one participant spent over \$200 per week on cannabis. Many had a history of other drug use, particularly during their youth, but their current use of other illegal drugs was rare. In the younger cohort, 9 of the children (aged between 8 and 17) had not tried cannabis and 2 participants (aged 15 and 16) had tried cannabis on one or two occasions only. Of those aged between 19 and 34, 6 were using cannabis regularly, and 7 young people between the ages of 18 and 25 had tried cannabis but no longer used it. When children under the age of 14 were excluded ($n=6$) there were 10 cannabis users amongst the offspring of nominated cannabis.

Data Collection**Interviews.**

Interviews were conducted with 43 participants from 13 families. Interviews explored the role of cannabis use and its benefits and harms from the perspective of cannabis users, as well as their partners and children. Interviews were intended to explore any strategies that cannabis users had adopted to minimise harm to themselves and others, including any strategies specifically aimed at minimising harm to their children. Interviewing family members living with cannabis users was intended to provide an indication as to the effectiveness or otherwise of the harm reduction strategies practiced by cannabis users.

The researcher used a semi-structured *interview schedule* (Appendix G) containing the following five open-ended questions that were posed to cannabis users, their partners, and those children who were aware of their parent's cannabis use.

1. Tell me about how cannabis use fits into your current lifestyle. Tell me how you incorporate your [or your partner or parent's] cannabis use into a typical week, day, or weekend. Are some days more difficult in this regard than others? Describe for me a typical weekend, school morning, or evening.
2. Tell me about some of the benefits you [or your partner or parent] get from using cannabis. Benefits are the things you/they enjoy about using cannabis. For example, how it makes you/them feel or how it enhances your/their activities.
3. It has been helpful to hear about the rewarding aspects of your/their cannabis use, tell me about any harms that you think come from your/their cannabis use. Harm refers to the less good things about using cannabis, the things you would prefer didn't happen. For example, coughing, the cost of buying it, or lying to people.
4. Tell me about anything you [think they] do or have done to reduce this type of harm or avoid this happening? What about families who aren't doing as well as yours – what could they be doing in this regard?
5. Have there been times when you have felt a need to reduce or change your cannabis use? If so, what was happening for you or your family?

Questions were approached using a conversational style rather than being read verbatim from the interview transcript. Various conversational prompts were used to elicit further details. Such prompts were not necessarily those prepared in advance on the interview schedule. To establish shared meaning, the researcher included lay definitions of benefits and harms within

questions 2 and 3. Interviews did not refer to harm reduction strategies but simply asked about the things people did to minimise any harm from their use of cannabis, including harm to self, children, or others (see question 4). If participants required further prompting, examples about smoking outdoors or hiding smoking implements from children were provided.

The five interview questions, together with various prompts, were designed to elicit a range of data sufficient to address the aims of the research. Similar questions were posed to non-smoking partners by slightly changing the wording (e.g., tell me about some of the benefits *your partner* gets from using cannabis). Participants were expected to divulge a range of information in response to initial questioning. Hence, the order of questions and the actual terminology that was used varied between participants as it was informed by demographic information, responses to earlier questions, and other family members' interviews. In this way, the researcher was able to facilitate rapport by phrasing questions in the context of the participant's life and in the language of the participant. Prompts were used to focus the interview and to elicit specific information as required. Thus, the interview schedule was used primarily as a checklist and reminder sheet to ensure that the researcher captured a broad range of responses sufficient to address the research objectives.

All interviews were conducted by the researcher between September 2008 and May 2009. Interviews mostly took place at the participant's home. One interview was carried out at the university and one adolescent was interviewed at a park near her home to provide privacy from other family members. Individual interviews took approximately 1 hour, with an extra 30 minutes taken up with formalities and collection of demographic information. Interviews with children tended to be of a shorter duration. Upon completion of each initial interview, arrangements were made for the next family member to be interviewed. The nominated cannabis user in each family was interviewed first, followed by his or her partner and then his or her children. Interviews were conducted separately and took place out of hearing range of other family members. In most cases, interviews with family members took place on separate occasions, allowing for an iterative process whereby each interview was built on the one prior. Each participant received a gift voucher following completion of the main interview.

Interviewing children.

In cases where parental cannabis use was out in the open and where parents had provided informed consent, the same five interview questions were used to explore parental cannabis use with adolescent children. In cases where parents believed that their children were not aware of

the parent's drug use, questions pertaining to cannabis use were omitted and interviews focused more broadly on the child's general perceptions about life in their family. When there was permission to discuss cannabis use with younger family members, the topic was introduced carefully, with the researcher asking the child whether he or she knew of anyone in the family using cannabis rather than the researcher identifying the cannabis-using parent. Two children who were supposedly aware of their parent's cannabis use replied in the negative, electing not to identify the parent as a cannabis user. In both cases, the interviewer focused on family life generally and attitudes to cannabis use were explored without reference to the parent.

Although parents were invited to be present during discussions with adolescent children under 18 years of age, they did not take up this option preferring instead to provide their child with as much privacy as possible, encouraging them to speak openly with the researcher. Children were interviewed in their homes and parents tended to be in a nearby area of the home, behind a closed door in most cases. One adolescent elected to be interviewed in a park near her home as it was difficult to achieve privacy in the home due to its design and the presence of several siblings. In two families, the open plan design of the home meant that there was no door to close, although other family members were out of sight and occupied with other things.

In some families, cannabis is used discreetly with a view to keeping it apart from children. The following three questions were used with naive participant children.

1. All families are different and I am trying to understand what it is like being in your family. If you could identify five things that would define your family, what would they be?
2. It has been helpful to hear about the good things about being in this family. I wonder if you can tell me whether there are things about being in this family that are maybe not so good.
3. Tell me about a typical week, weekend, school morning, or evening.

In order to facilitate rapport and encourage participating adolescents to fully engage in the proposed research, a photovoice technique was initially employed. Photovoice is a methodology that encourages participants to take photographs of their everyday realities, with the photographs being used to facilitate relevant discussion (Wang & Pies, 2004). When the photovoice technique was used, participants were simply asked to tell the researcher about the photographs they had taken. In the current research, disposable cameras were left with adolescent children following the interviews with their parents. The photovoice technique has been successfully employed with

adolescents (Wang & Redwood-Jones, 2001), and in the current research adolescents and younger siblings were invited to take photographs to help the researcher to understand what it was like being in their particular family. Photos remained the property of the adolescent and their family rather than forming part of the research as their purpose was solely to enhance rapport and facilitate discussion. The photovoice technique was used with one participant although cameras were left with children in two other families. Due to problems such as delays in getting photos taken, cameras getting lost, and the researcher's sense that the use of cameras might be construed as intrusive or as increasing the demands of participation, the photovoice strategy was abandoned.

Data Analysis

An interpretive framework guided by Miles and Huberman's (1994) thematic content analysis technique was used to analyse interview content. This methodology offers the advantage of approaching the data analytic process from an inductive stance, allowing the data to 'speak for itself,' and permitting identification of novel patterns that are not necessarily predicted by the literature. Hence, this methodology is particularly suitable for understanding domains of human behaviour in which little information or understanding currently exists or when conventional theories offer limited scope (Giacomini & Cook, 2000) as was the case with research into the harm reduction strategies used by cannabis users who are parents.

Recruitment of participants took longer and was more difficult than anticipated and the final sample size was limited by the timeframe required for completion of the study. Nonetheless, saturation of themes appeared to be achieved given that data from the later interviews gradually became limited to topics that had already been well described in earlier interviews. Data from within each family was examined for content directly related to the research questions about the experience of parental cannabis use, the perceived benefits and harms of such use, and any harm reduction strategies adopted by cannabis-using family members to reduce harm to themselves and others. Data from the partners and offspring of cannabis users were intended to provide some initial indication of the success or otherwise of any harm reduction strategies employed. Behaviours identified as harm reduction strategies by the researcher were based on an understanding of the risk and protective factors associated with drug use as informed by the extant literature and were not necessarily thought of in such terms by the participants.

Data collection and data analysis were interwoven and carried out iteratively as is usual in qualitative research (Miles & Huberman, 1994). Interviews were transcribed verbatim except that idioms of speech (e.g., “um”, “you know”, and “you know what I mean”) were removed as they added nothing in terms of meaning. This was done to facilitate a clear and concise display of the data. Interview transcripts were read and re-read to gain an overall impression about the way cannabis was managed in each family and passages specifically relating to the research questions were highlighted. Every sentence was examined and coded with the assistance of NVivo8 (QSR International Pty Ltd., Version 8, 2008) qualitative data analysis software. Throughout the research process, the researcher made notes (memos) of interpretations, links, ideas, etc. which were subsequently incorporated into the analytic and interpretive process.

Coding was an iterative process that saw all relevant data from each participant coded against either a new theme or an existing theme. The emergent themes were merged and collapsed as each category became more clearly defined and focused with the inclusion of data from additional interviews. Three levels of coding were finally developed: *themes*, *sub-themes*, and *minor themes*. The labels and descriptions assigned to each category were revised throughout the analytic and interpretive process as more data were included and the research supervisor provided validation and support with coding descriptors and clarity around thematic structure and data saturation. Where possible, each category was eventually labelled with a one or two word title that captured the essence of the items coded within it. For example, Theme 6 was about whether the parent’s long-term use of cannabis had affected his or her ability to provide effective and consistent parenting. Hence, it was labelled *Parenting*. Within this theme, there were four sub-themes: *Positive effects*; *Adverse effects*; *Outcomes*; and *Boundaries*. Some sub-themes contained a number of minor themes. For example, *Positive effects* contained two minor themes: *Beneficial* and *Playful*. The data were, therefore, condensed and organised as per the process of data reduction described by Miles and Huberman (1994). In the early stages of the current study, the NVivo software was used to produce printouts displaying all of the data as it was organised within the various themes. From these displays, several passages of data were selected that best represented each theme and this data was summarised in table form in a Word document. Saturation of themes appeared to be achieved given that the quantity of new data obtained during the last few family interviews became limited to topics that had already been well developed into themes, sub-themes, and ideas. Table 3 at the beginning of Chapter V summarises the final thematic structure.

Respondent validation

The need for feedback was raised with participants following completion of initial interviews. All participants said they were willing to provide additional short interviews following data analysis for the purpose of providing feedback and validation. Such interviews took place with four of the nominated cannabis users. Validation interviews occurred approximately 12 months after initial interviews allowing the researcher to also enquire about any changes that might have occurred in relation to cannabis use or the family's functioning. Those participants whose contact details were still valid at the conclusion of the analyses were also provided with summaries of the findings. This allowed participants the opportunity to provide feedback as to the truth-value of the researcher's interpretations in order to minimise bias and correct any errors of fact or interpretation (Bouma, 2000). The participants who provided feedback about the current research generally reported the findings to be consistent with their own experience.

Chapter V - Findings (Study 1)

Seven major themes emerged from the data: (1) Benefits; (2) Harms; (3) Problems; (4) Attitudes; (5) Communication; (6) Parenting, and (7) Harm reduction strategies. Data about the potential benefits, harms, and problems were identified in Themes 1, 2 and 3 respectively. Theme 4 was about the intergenerational transmission of liberal attitudes toward drug taking and Theme 5 explored the development of children's understanding of their parent's cannabis use. Theme 6 drew on and incorporated data contained in the first five themes but with the focus being specifically on outcomes associated with parenting. Theme 7 focused on identifying the attitudes and behaviours that may have contributed to participants' ability to reduce the risk of harmful outcomes. Potentially useful strategies to reduce cannabis-related problems and minimise harm were identified by the researcher through reanalyses of themes 1 through 6. Theme 7, therefore, contains no new data but rather organises the data to identify and highlight the harm reduction strategies used by the nominated cannabis users.

The thematic structure of the data is displayed in Table 3 below, followed by details of the findings in which minor themes and ideas within each sub-theme are illustrated using direct quotes from the data. Tables containing additional data are available upon request.

TABLE 3

Thematic Structure

| Theme 1. Benefits | | |
|--------------------------|---|---|
| 1.1 Positive stimulation | Pleasure | Enjoyment; Intoxication; Reward; Creativity; Aphrodisiac. |
| | Stimulant effects | Motivation and energy; Focus; Sporting ability. |
| 1.2 Social benefits | Socialising; Social status; Talkative; Compassion; Relationships. | |
| 1.3 Reducing discomfort | Stress management | Relaxation; Coping; Cognitive processing; Boredom. |
| | Mood management | Emotional protection; Depression; Anxiety; Anger. |

| | | |
|---------------------|----------------------------|--|
| | Medicinal use | Nausea and appetite; Pain; Withdrawals; Insomnia. |
| Theme 2. Harms | | |
| 2.1 Intoxication | Cognition | Attention; Memory; Time; Sluggish cognition; Driving. |
| | Mental health | Depression; Anxiety; Anger; Flashbacks; Paranoia; Schizophrenia and psychosis; Cannabis withdrawal. |
| | Passive smoking | Children; Infants. |
| | Social issues | Sexual; Conversation. |
| | Amotivational Syndrome | Lethargy; Social withdrawal; Hangover; Hinders progress; Education. |
| | Physical effects | Heart and lungs; Muscular tension; Headaches; Appetite. |
| 2.2 Long-term risks | Health | Heart and lungs; Cancer; Diabetes; Gum disease; Toxicity. |
| | Avoidant coping | Failure to deal with problems; Avoiding emotions; Placebo effect. |
| | Financial | Expensive; Justifying the cost; Buying in bulk. |
| | Legalities | Drug testing; Legal status; Criminals; Police attention; Drug dealing; Supplying family members; Being discreet; Employment. |
| | Social | Social disapproval; Worry; Partner complaints; School; Family tension; Substitute for attachment. |
| | Polydrug use | Gateway hypothesis; Tobacco; Alcohol. |
| | Intergenerational drug use | Easier to use; Stealing parent's cannabis. |

| Theme 3. Problems | |
|--|---|
| 3.1 Soft drug choice | Acute effects; Wears off quickly; Chronic effects; Alcohol; Other drugs; Lack of withdrawal symptoms; Affordable. |
| 3.2 Drug-related problems | Recognition of problematic use; Polydrug use; Excessive use; Individual differences; Cannabis dependency; Quantifying use; Inconsistencies; Perceptions of control. |
| 3.3 Dosage control | Cannabis potency; Tobacco; Smoking implements; Ingesting it. |
| 3.4 Lifestyle factors | Drug-using lifestyle; Drug-seeking behaviour; Drug deals and criminality. |
| 3.5 Chronic cannabis use | Use across time; Tolerance; An exit drug. |
| 3.6 Quitting or reducing | Withdrawal; Treatment; Coping strategies; Reasons; Changing social circles; Never want to quit. |
| Theme 4. Attitudes | |
| 4.1 Modelling and drug-related behaviour | Initiation; Young people's drug use; Openness with parents; Saying no; Attitude to parental use; Parent blame; Other influences. |
| 4.2 Normalisation of cannabis use | Everyone does it; Developmentally normal; You outgrow it; Normal in my family; Normalising drug deals. |
| Theme 5. Communication | |
| 5.1 Children's awareness | Parent openly uses; Parent hides use; Smell; Early awareness; I always knew. |
| 5.2 Conversations about drug use | Keeping the secret; Absence of discussion; Talking about parental use; Parental advice; Mixed messages; Attitude to parental advice; Drug education. |
| 5.3 Other information | The media; Health department; School; Drug knowledge. |

| Theme 6. Parenting | |
|------------------------------------|--|
| 6.1 Adverse effects | Negative impacts; Benefits after quitting; Financial impact; Guilt; Overly agreeable; Discipline; Transporting children; Housework; Emotionally unavailable. |
| 6.2 Positive effects | Beneficial; Playful; |
| 6.3 Outcomes | Family descriptions; Distress and anger; Separated families; Education; Extra-curricular activities; No harm done; Harm overlooked. |
| 6.4 Boundaries | Parent-child boundaries; Smoking together. |
| Theme 7. Harm Reduction Strategies | |
| 7.1 Dosage control | Level of intoxication; Potency; Method of delivery; Mixing with alcohol. |
| 7.2 Dependency | Frequency of use; Self-monitoring; Mixing with tobacco. |
| 7.3 Acute risk | Monitor mood; Avoid driving; Prioritise responsibilities. |
| 7.4 Long-term harm | Active coping; Drug seeking; Low profile. |
| 7.5 Harm to children | Passive smoking; Obtaining cannabis; Store securely; Prioritise children's needs; Cost. |

Theme 1. Benefits

The perceived benefits of cannabis use were organised into three sub-themes: (1) Positive stimulation; (2) Social benefits; and (3) Reducing discomfort.

1.1 Positive stimulation

The first sub-theme was about the use of cannabis to increase pleasure and performance. Two minor themes emerged: (1) Pleasure and (2) Stimulant effects.

1.1.1 Pleasure

This minor theme was about the idea that people simply enjoy using cannabis; it incorporated five ideas: 1) Enjoyment; 2) Intoxication; 3) Reward; 4) Creativity; and 5) Aphrodisiac.

1.1.1.1 Enjoyment

The notion of enjoyment was succinctly expressed by Anthony (36) who said, *“The main reason I smoke cannabis is because I enjoy it; I enjoy the feeling – same reason I drink tea, I enjoy it.”* Mike (51) said that he had resumed the use of cannabis during a particularly stressful period in his life but continued to use it, stating, *“I am over that period now and my life is pretty relaxed, so I don’t really need to continue smoking but I enjoy it.”* When Mike’s son, Alec (20) was asked why he thought his father used cannabis, Alec replied, *“I guess he enjoys the effects, just like everyone else. I think lots of people would enjoy it if they tried it.”* Hence, Alec recognised that his father used cannabis simply because he found its effects pleasurable.

1.1.1.2 Intoxication

Mark (32) described the pleasure associated with cannabis intoxication as *“euphoria”* and said that although he had used AOD for various reasons at different times in his life *“smoking weed was always about getting high.”*

1.1.1.3 Reward

The use of cannabis as a reward following completion of mundane or domestic tasks or as ‘something to look forward to’ at the end of the working day were common themes. Participants often looked forward to smoking some cannabis after work.

It wouldn’t be every day, no, some days it would just be a drink but it is always something within a few minutes of getting home. I am looking forward to it on the bus. It is a punctuator as well. Sometimes on the weekends I will do all my washing and then I reward myself and I do so nakedly, in those terms. There is no doubt about it; it is a reward. You have earned it. It is a punctuator, as well. Aaron (49) Family 5

1.1.1.4 Creativity

Many of the participants were creative people that enjoyed things like playing guitar, painting, writing, or dancing. For some, cannabis was a boon to their creativity. Anthony (36) stated, *“I play much better [guitar] music when I am stoned.”* Other participants claimed that cannabis intoxication increased their motivation to engage in creative pursuits and allowed them to bring a different mindset to the task, enhancing their creativity such that different ideas emerged.

It taps into a creative side and gets me going and wanting to do things. I like to smoke when I'm out in the garden, ideas happen quickly, and they're different ideas. So I'll go and explore those and see if they work, and if I'm doing artwork, it enhances that somehow.

Linda (50) Family 1

I make things, carving, and also write stories and stuff and I find it really helps with that. ... It does help with insights, maybe just relaxing that part of you to let you have those insights to think outside of the square a bit.

Aaron (49) Family 5

1.1.1.5 Aphrodisiac

Cannabis was also found to heighten and prolong sexual pleasure, hence, it was considered an aphrodisiac by some participants.

It is an aphrodisiac for me because it relaxes me and makes me more sensual and ... it makes things very uncomplicated for me and I have got to say I have the best orgasms if I am stoned

Sally (56) Family 12

1.1.2 Stimulant effects

In this minor theme participants described their experience of cannabis as a stimulant; three ideas emerged: 1) Motivation and energy; 2) Focus; and 3) Sporting ability.

1.1.2.1 Motivation and energy

A number of participants found that cannabis acted as a stimulant for them, increasing their energy and motivation. Phillip (46) described cannabis as “a pick-up and a stimulant.”

I do find that it helps me in some ways, to get me re-energised and get moving after a hard day's work. ... It doesn't slow me down in any way. Yeah, it does help me. It just gets me going again.

Mike (51) Family 4

1.1.2.2 Focus

Anthony noted that he was able to focus his attention more fully on mundane tasks when he was under the influence of cannabis.

I find that if I have got to do menial tasks, I will focus on them a bit more and take a bit more time than usual. Normally when you have got to do a menial task you just do it and get it out of the way and you don't worry about finishing the edges or whatever. When I have had a smoke, I will take that little bit more time to do it.

Anthony (36) Family 3

His partner, Tamara, had also observed this to be true for Anthony, noting that, “He becomes very focused on what he [is] doing. Like he is really into this battlefield computer game and before that he used to play his guitar [when he was stoned] because he concentrates and focuses on it.”

1.1.2.3 Sporting ability

Some people found that using cannabis improved their sporting ability. Carol enjoyed playing competitive pool (eight-ball) and found that smoking cannabis was necessary if she was to win.

I have noticed that if I haven't had a smoke I am useless. If I have had a smoke, they call me a shark. I don't know how that happens but if I have a smoke then I have a game of pool I usually win. ... I have to [smoke cannabis] because otherwise I can't [play].

Carol (50) Family 6

Phillip argued that, for him, cannabis was a stimulant that enhanced his sporting performance when he played basketball or squash.

I played competitive sport up until I turned 45 and I played basketball up until then and usually after I had a smoke most of the time. I am still playing squash but it has been 20 years or so since I played without having a cone probably. It allows you to concentrate more, I think. It is a pick-up and a stimulant.

Phillip (46) Family 8

1.2 Social benefits

This sub-theme reflected participants views about the social aspects of their cannabis use and included five minor themes: (1) Socialising; (2) Social status; (3) Talkative; (4) Compassion; and (5) Relationships.

1.2.1 Socialising

Although using cannabis was central to some participants' social life, most of the nominated cannabis users tended to smoke alone or with their partners. For many there had been a more social element to their cannabis use when they were younger.

I don't think I would have hardly smoked alone at all [when I was younger]. I didn't drink alcohol so I would be the one with the pot at the party. When I visit my friend, the artist, we will sometimes sit for a couple of hours, maybe once a week and have two or three [cannabis] pipes and just have conversations about art and Buddhism.

Aaron (49) Family 5

Some respondents believed that the use of cannabis made them easier to get along with and in some cases it was argued that it made socialising easier. Carol claimed that cannabis made her less socially inhibited whereas Tess described herself as less socially anxious and reactive.

I might come out with stuff that I normally probably wouldn't say. If I hadn't had a smoke I probably wouldn't come out with it. I would be a bit more quiet. It might give me a bit of Dutch courage at times.

Carol (50) Family 6

[When I use cannabis] I feel like I can actually cope more with people and with society. I feel like I can deal with society a lot better because I am calmer. I'm relaxed more, I am not so scared of what people will think or I don't care. It doesn't matter what they are

thinking and saying about me because it is not hitting me. It is like my shield; it gives me protection.
Tess (34) Family 12

1.2.2 Social status

Being a cannabis user sometimes gave a parent or their teenage offspring a sense of kudos or social status. Lindsay initially had some reservations about her friends knowing that her father smoked cannabis but said, “Every time we have parties dad would be having a session out the back with the guys. People kind of thought it was cool!” Heather (20) from Family 1 also recalled it being ‘cool’ to have a mother who smoked cannabis. “When I was 13 or 14 I went through a stage where I thought it was really cool.”

Knowing I am a criminal [due to use of cannabis]. There is a bit of kudos involved with that, as well. It is not necessarily a negative thing. I am part of something that the rest of society would shun and look on as some sort of evil kabala,” users.” Yeah, it is okay to be part of that. I am proud of it.
Aaron (49) Family 5

1.2.3 Talkative

Many of the participants acknowledged that they were more talkative when they had been using cannabis. In Anthony’s case he also argued that it made him easier to get along with.

I would probably talk a little bit more. I have noticed that it gets my yaps going. I can be a little bit cynical sometimes but I find that when I have a smoke, I just mellow out. Without [cannabis] I focus on all that stuff too much and I start to annoy people. I become... not quite obnoxious, but I challenge people on different stuff and push the boundaries and not many people like that.
Anthony (36) Family 3

Anthony’s wife, Tamara, confirmed that Anthony “rambles on a bit” when he has been using cannabis. Like a lot of young people, cannabis was a central aspect of 20-year-old Liam’s social life.

We usually get three mates around and we each chuck in a stick so we have three sticks and chop it all up and all we do is sit there but it is so funny. We have got so much to talk about and when we get there and there is no dope, we all sit there phoning our friends trying to find some. We have got nothing to talk about but as long as that bong is there with that choof. We still talk and everything but when it is there it is just total conversation and another topic will come up one after the other [snaps fingers]. Whereas you would always have a silence there and be a bit bored when you are chasing pot.
Liam (20) Family 8

1.2.4 Compassion

A number of participants argued that using cannabis (or having a parent that used cannabis) had made them a better person, in terms of being more open-minded, tolerant, and compassionate.

It opened my mind up. I used to be a bit insensitive, not so much heart, and selfish, "it's all about me," "what I want to do," "tonight is my night get your own." Whereas after smoking dope you try and become a better person, well I did anyway. If the whole world smoked dope, if every night they went outside and had a joint, I think the world would be a better place.

Anthony (36) Family 3

It is not like with other drugs where the love that they feel, the compassion, all goes out the door. When you are smoking [cannabis] you become more sensitive to some of that stuff.

Tess (34) Family 12

1.2.5 Relationships

Cannabis was frequently thought to be contributing a positive effect overall in terms of close relationships. Mike said that using cannabis allowed him to relax and improved communication with his children.

I find it much easier to talk to my kids if I have had a joint because it makes me feel much more relaxed and more able to listen to them and talk to them. I've never had problems with that anyway, talking to the kids, but I think, if anything, it is probably an improvement because I am not so tense and sort of stressed.

Mike (51) Family 4

Craig argued that cannabis improved his relationship with his partner by facilitating intimacy and a deeper connection.

I would start speaking with what I would consider to be more depth, more spiritually, that I think has meaning to me. Tracy and I get on really well because we can kind of... We know what we mean. We are more inclined to talk about the meaning of songs and life and death and kids and this and that.

Craig (50) Family 9

1.3 Reducing discomfort

This sub-theme was about the use of cannabis to alleviate undesirable states and incorporated three minor themes: (1) Stress management; (2) Mood management; and (3) Medicinal use. These themes were about the alleviation of undesirable mental, emotional, or physical states.

1.3.1 Stress management

This minor theme encompassed four major ideas: 1) Relaxation; 2) Coping; 3) Cognitive processing; and 4) Boredom.

1.3.1.1 Relaxation

The use of cannabis to relax and alleviate stress was one of the most frequently reported benefits. Linda (50) said, *"It just relaxes me and chills me out from whatever else is happening around the place. It just takes you to another level of being relaxed."* Linda's daughter, Heather (20) had noticed that cannabis made her mother more relaxed and it had a similar effect on Heather.

Mum maybe gets a bit more relaxed that is all. ... I know what I am like when I smoke ... you just want to sit down and be really lazy. ...after I have had a smoke ... I get drowsy.
Heather (20) Family 1

1.3.1.2 Coping

In terms of alleviating stress, Mike (51) said that cannabis had been “*like a saviour.*” When he had resumed cannabis use in response to work and marital stress, his wife at the time was reportedly “*happy with that, she didn't mind, it helped me to cope.*” Like Mark's ex-wife, Paul was not a cannabis user. Nonetheless, he had no problems with his partner using cannabis.

It just sort of de-stresses [her] and it is pleasant for her to do. It is a personal thing that Linda herself has some control over, that actually results in a physical feeling of less stress, at times when things might be causing her some kind of distress.

Paul (54) Family 1

Clifford (17) believed that his mother's use of cannabis had helped her to cope with a large number of stressors, including domestic violence, discovering that her husband was using heroin, getting divorced, and raising five children by herself with no family support. Clifford was not using cannabis himself.

It sometimes works for her [aids coping] because while you can't forget the problems, it allows you to ignore them for a while. I think her use of cannabis over the years has actually helped this family, as odd as that sounds, because it has allowed her to deal with a huge amount of problems, with what she has gone through with my father and many other things.

Clifford (17) Family 13

1.3.1.3 Cognitive processing

Participants sometimes viewed the effects of cannabis on their cognitive processing as beneficial. Linda (50) described the use of cannabis to facilitate cognitive distraction as a way to cope with problems. “*It can be a form of escapism when things get too hard and too much and you just smoke and smoke and smoke and you don't think about a great deal at all.*” Her partner agreed that using cannabis allowed Linda to have some ‘time-out’ when things were stressful.

[Having] a bit of a 'choof' gives her the physical sensations that can go with, and that lead to, mental rest, for her. It is probably temporary because whatever the stressors are, if they are actually problems, [they] don't actually go away because of that but as a benefit, I think it is good for her ... she just has a bit of a mental holiday.

Paul (54) Family 1

1.3.1.4 Boredom

Mark (32) recalled that as a young person his early use of cannabis had initially been a way to alleviate boredom. “*It just started with that sort of directionless boredom, 'yeah, let's just get*

wasted, have fun, get wasted, go to sleep, do it again’.” Colette (36) stated that she had also tended to smoke much more when she was unemployed and bored.

It was the times when I wasn’t working that I smoked the most. I had times when I was on the dole, dole and it was really the doldrums for me. I didn’t know what to do with myself so I smoked mull.

Colette (36) Family 5

Sometimes participants found themselves using cannabis when they were housebound but not busy dealing with their children.

Since I have had [my son] I find that I smoke during the day a lot, generally after he has gone down for a nap, because I don’t know what the fuck to do with myself and it is the only time I get to relax. If I am toking, I don’t feel bored. So if I haven’t got anything else to do I will have a smoke.

Tess (34) Family 12

1.3.2 Mood management

Cannabis was often used to improve an individual’s mood or to manage unwanted emotional states. This minor theme encompassed four areas of mood management: 1) Emotional protection; 2) Depression; 3) Anxiety; and 4) Anger.

1.3.2.1 Emotional protection

Aaron (49) described the use of cannabis as an “*emotional raincoat*” and other participants also described the use of cannabis for emotional protection.

[Cannabis] helps you feel okay. It is like an emotional raincoat. My self-esteem is under attack here but I can retreat into this little area of feeling good and don’t give a shit.

Aaron (49) Family 5

At the end of the day, why do people take drugs? To alter their mind, to make themselves feel better. They are not comfortable where they are and they either want to mask that and get out of it or stop out of it completely. Drugs, smoking dope, is going to do that for you, stop you thinking about what is happening in your life if things are a bit tough. It is a crutch, the same with alcohol.

Linda (50) Family 1

1.3.2.2 Depression

When children were asked why they thought their parent or others used cannabis they often attributed this to the adult’s low mood. Jeff (12) thought adults probably used cannabis “*mainly because they are depressed from a loss or something.*” Ten-year-old Heath said he didn’t know why his mother used cannabis but thought it might be “*because she is sad, depressed, and she hasn’t had a husband for 10 years.*”

1.3.2.3 Anxiety

Some participants admitted that using cannabis was sometimes a solution to high anxiety.

If I am anxious before I have a cone, if it is nice mellow buds, it will just float the anxiety away. When I am stoned it is a bit easier to laugh at myself and that tends to diminish anxiety as well. All the shit you are worrying about just sort of looks pretty silly.

Mark (32) Family 2

1.3.2.4 Anger

Lynette thought that using cannabis helped her to be a calmer parent.

I don't ever get really, really mad ever. So maybe it is a good thing. Definitely, yeah, because if I haven't been smoking, then I can get angry really quick. I think that it mellows me out.

Lynette (37) Family 7

1.3.3 Medicinal use

This minor theme was about direct physical benefits attributed to the use of cannabis. It encompassed four major ideas: 1) Nausea and appetite; 2) Withdrawals; 3) Pain; and 4) Insomnia.

1.3.3.1 Nausea and appetite

A number of participants found cannabis to be useful in improving the appetite and alleviating nausea and vomiting due to stomach irritations or pregnancy. Tess (34) said, *"I will even have cannabis for gastro and still be able to eat because it settles my stomach."* Colette (36) found cannabis was useful in alleviating nausea and reported using it during pregnancy to cope with morning sickness. *"If I am nauseous, I take mull. It is medicinal. I used it for morning sickness."*

1.3.3.2 Withdrawals

For Colette (36) cannabis was also useful in alleviating the nausea and pain associated with ceasing the use of other drugs.

I have been having [cannabis] pipes lately because I have been desperate for painkillers. Instant! Also [my hands] shake so much I can't roll [a joint], that is my problem at the moment [with] the detox. At the moment I really need to get rid of my nausea

Colette (37) Family 5

1.3.3.3 Pain

Cannabis was also used as an analgesic to alleviate pain associated with back and neck injuries and headaches. In some cases doctors were reported to be aware of their patient's use of cannabis.

It is more a medication now. I get heaps of pain, so I do use it as pain management, which I also use alcohol for. It just allows me to relax. Over the last couple of years that has been a big factor [in my cannabis use]. My doctor is aware that I use cannabis to control the pain and she is quite happy with it. She is more worried about things like

benzo's and stuff. She doesn't want me on that as they are more addictive and have far worse withdrawal effects as well.
 Aaron (49) Family 5

According to Aaron, his doctor considered his use of cannabis to alleviate back pain as less of a risk than the use of prescription painkillers. Women reported the use of cannabis for period pain, as well as to cope with back pain during pregnancy, labour pains, and uterine pain following childbirth.

The pain killing benefit is the main benefit for me at the moment because I can't take painkillers. It is not totally pain killing but it certainly helps, especially with a combination of cannabis and a couple of muscle relaxants. It is the only pain killer for period pain that works for me
 Colette (36) Family 5

1.3.3.4 Insomnia

Madalyn explained that she used to smoke cannabis to overcome insomnia after finding that drugs prescribed for this purpose were too strong.

Having three kids I really need to sleep and sometimes I can't switch my head off. My body is tired but my brain won't shut up. [Cannabis] will fix that. The doctor gave me sleeping tablets to try and I took half of one and didn't wake up until 10 o'clock the next morning and the girls were little. ... It scared the crap out of me. [Cannabis provided] that quick ritual that took no effort to get the desired effect, which was that I was tired enough to go to sleep. When I couldn't get hold of any I would be up all night bouncing off the walls because I couldn't sleep. I would be up until 4 or 5 in the morning.
 Madalyn (34) Family 11

Madalyn had ceased using cannabis prior to her interview and her daughter Amber (13) was aware that her mother had been using cannabis for this reason.

[Mum] told us why she smoked it and she said that it just helps her go to sleep because she had that thing when you can't get to sleep. So she just took it before she would go to bed and then she could go to sleep.
 Amber (13) Family 11

Summary.

The perceived benefits of cannabis use were related to positive stimulation; social benefits; and reducing discomfort. Participants used cannabis for various reasons, including its stimulant and pleasurable effects; stress management, particularly through physical relaxation; medicinal purposes, especially the management of pain and insomnia; and to cope with unwanted emotional states, such as anxiety or anger. Some participants claimed that cannabis provided them with cognitive, spiritual, or social gains under certain circumstances. Hence, participants attributed a wide range of benefits to their cannabis use and other family members usually had an accurate understanding of such reasons, although family members were sometimes less convinced than were cannabis users that such benefits were actually attained.

Theme 2. Harms

This theme identified any potential or actual harm arising from cannabis use as perceived by the participants. The data were organised into two sub-themes: (1) Intoxication and (2) Long-term risks. It should be noted, however, that there is some overlap in these constructs to the extent that the psychoactive effects of cannabis intoxication (such as cognitive impairment) might have long-term consequences if intoxication is frequent and ongoing. For example, see point 2.1.1.4.

2.1 Intoxication

This sub-theme was about the acute psychoactive effects of cannabis intoxication. Six minor themes were identified: (1) Cognition; (2) Mental health; (3) Passive smoking; (4) Social issues; (5) Amotivational syndrome; and (6) Physical effects.

2.1.1 Cognition

This minor theme included five ideas about the impact of cannabis intoxication on aspects of cognition: 1) Sluggish cognition; 2) Attention; 3) Driving; 4) Memory, and 5) Time.

2.1.1.1 Sluggish cognition

The idea of ‘sluggish cognition’ was about participants’ general acknowledgement that using cannabis affected their mental acuity and had the capacity to impact on the ability to safely drive a motor vehicle or attend to work-related tasks and other responsibilities. Those participants who had ceased using cannabis tended to be more aware of the way it had slowed down their cognitive processes.

Anything that involves learning, memory, or really engaging that higher brain, that is when you don’t smoke. When I quit dope completely I did notice that after a couple of weeks a sharpness came back.
Mark (32) Family 2

I feel [it affects] my mental abilities; it slows my brain down heaps. I didn’t realise until after I stopped smoking and I came to these conclusions. I now realise that when I smoke marijuana it makes me not as ‘with it’ and I have five kids so I have to be ‘with it.’

Tina (36) Family 2

2.1.1.2 Attention

While some participants claimed that cannabis improved their ability to focus, many other participants reported an impaired ability to concentrate. Linda (50) said that she would not use cannabis “if there was something that I really needed to concentrate on or pay attention to [because] you can’t focus.”

2.1.1.3 Driving

Mark agreed that cannabis affected cognition but argued that he could drive a motor vehicle when under the influence of cannabis because driving was an automatic task.

Anything that involves learning, memory, or really engaging that higher brain, that is when you don't smoke. Anything that is done on a sub-conscious level, it doesn't seem to affect it much. Anything that is automatic in nature is okay. When I first got my licence, if I got stoned I wouldn't drive but now it is just second nature and it is the same [as driving when not stoned] but if I had to drive a truck or something, I wouldn't get stoned.

Mark (32) Family 2

2.1.1.4 Memory

The impact of cannabis on memory was probably the most widely mentioned side effect. Children of cannabis users were aware that their parents tended to be forgetful. Piper (20) said, "When I was a child, my mum's memory was terrible and that brought on a lot of pain because I was always the last one out of school to get picked up." Middle-aged cannabis users knew it probably affected their memory but didn't usually view this as a major problem.

I do think that it does affect your memory. You are trying to remember something and it is hard to know whether it is because you are getting old or because you [smoke cannabis] or a combination. ... I sometimes think that being stoned is a lot like when you are old. You look at my mother who is 87 and we are now struggling to think of the right words and this and that, and you think 'well, I am heading that way'. If I get there a little bit quicker because of what I am doing it is not [a big deal], I am going to end up there anyway.

Craig (50) Family 9

2.1.1.5 Time

The use of cannabis also affected people's perceptions about the passage of time although this was also not considered a major problem.

That was definitely something that I noticed when I first started using it but it didn't slow down time. Hang on! Maybe it did because I would think I had been doing something for hours and it had only been 15 minutes but now it is the other way around. Now I lose track of time and I actually don't notice that that amount of time has passed.

Aaron (49) Family 5

Tina (36) noted that when she and her husband were using cannabis they would fail to attend important appointments.

We would go to marriage counselling, we would do all these things but we would come undone at some point. You would miss all your appointments and I always have lots of appointments because I have got so many kids.

Tina (36) Family 2

It is likely that the use of cannabis contributed to the issue of missing important family appointments through affecting the parents' attention, memory, and their awareness of the passage of time.

2.1.2 Mental health

In addition to affecting their cognitive functioning, there was also a strong awareness among participants of the impact that cannabis could have on their mental health. This minor theme included seven ideas linked to participants' perceptions about the impact of cannabis on mental health: 1) Depression; 2) Anxiety; 3) Anger; 4) Flashbacks; 5) Paranoia; 6) Schizophrenia and psychosis; and 7) Cannabis withdrawal.

2.1.2.1 Depression

Participants frequently pointed out that using cannabis enhanced their existing mood or emotion. Therefore, if they were feeling depressed or experiencing another negative emotional state before they smoked then they were likely to feel even worse after using cannabis.

It seems to be an amplifier of pretty much everything that I am feeling. If I am feeling bad, I really don't feel like pot is ever going to make me feel good. If I am feeling okay, it will make me more okay. I think I might even avoid getting stoned if there was something on my mind already because you can become a bit obsessed and locked in a cycle of thought about it. It might make me more prone to paranoia and to focus more on the negatives, rather than give me insights or whatever. Aaron (49) Family 5

The notion that it was important to consider one's existing mindset before using cannabis was a common theme as was the idea that using cannabis use could contribute to the onset and maintenance of depression.

If you are prone to depression it can impact on that. It is more the physical and the psychological downs. If you are smoking too much it can impact on that a lot. I have noticed that for myself if I have been smoking too much and I have got myself in a hole. That has always been there anyway [for me] having some type of depression but [cannabis] definitely makes it worse. Linda (50) Family 1

2.1.2.2 Anxiety

As well as depression, an elevation in feelings of anxiety was also frequently mentioned.

I may get anxious but only if I am anxious before I have a cone. If you are nervous it can cause anxiety because the dope will feed into that whereas if you are in a good mood, the dope will just enhance that. If I am not in a good mood, I won't have a cone but that is pretty new as well. I wasn't always on top of it. I think dope affects your frame of mind more than drinking. With drinking, no matter what your state of mind is drinking will calm it down whereas with dope your state of mind affects the outcome more. I find that

I actually prefer to smoke dope when things are good rather than if I am a little bit stressed or a little bit anxious or something like that. Mark (32) Family 2

Some participants recommended avoiding the use of cannabis entirely when they were feeling anxious or highly stressed. Carol (50) eventually came to realise that her anxiety developed into paranoia and panic attacks if she used too much cannabis

If you are stressed, don't touch it because it will be 10 times worse. It emphasises it a lot more. I used to panic. ... I noticed that if I had had a few [cones], that [my anxiety] was over exaggerated. I had to cut back on my smoking; otherwise I think I would have ended up in Graylands. Seriously, I thought I was going nuts. I was getting palpitations; it just gets your heart going crazy. It was affecting me bad Carol (50) Family 6

Carol's daughter recognised that using cannabis contributed to her mother's anxiety.

I would say it probably makes her anxious. I haven't seen her have panic attacks or anything like that. I think she is just generally an anxious sort of person and from what I have read [cannabis] would make that worse. I don't know that if psychologically it has affected her or if that is her personality anyway. I don't know which is causing what. Lisa (25) Family 6

2.1.2.3 Flashbacks

A couple of the participants, both women whose partners were the nominated cannabis users in their families, stated that using cannabis was linked to intrusive memories associated with traumatic life events.

I have got PTSD from [childhood sexual abuse] and using a substance doesn't help. No, it gives me more flashbacks and stuff. Tina (36) Family 2

Unfortunately, it did set off a little bit of memory things, things that had happened to me ... repressed memories coming up and former abuse and stuff like that. Colette (36) Family 5

2.1.2.4 Anger

Although most people argued that cannabis did not cause aggression some participants were aware that using cannabis prolonged their anger.

Sometimes I am really, really angry ... If I have a smoke then, I will be stuck there in that place. I will just be so stuck with that mood from the start. If I can do some stuff first and work my way into a new space, then I [can] smoke after that. Then I am not so 'aaarggh!' When I was younger I used to have a smoke and then be really stuck in that pissed off state. Tess (34) Family 12

If things are going horrible between me and Tina, I prefer not to smoke [cannabis] because you tend to just turn inward even more and if you are all aggro and shit that is the last thing you need. ... If I am smoking less, it is easier to just step around that emotion and try to get to what is actually pissing me off. You could describe it as 'anger diminishes less quickly when you are smoking' Mark (32) Family 2

2.1.2.5 Paranoia

Cannabis users were generally aware that cannabis could induce a tendency toward paranoia, although experienced cannabis users had usually developed a tolerance that allowed them to overcome this sensation known as ‘*spinning out*.’

If you are going to be a dope smoker, you need to be able to deal with the paranoia; we used to call it ‘spinning out’. You need to conquer the spinning out because if you spin out you can have terrible times from dope, really terrible times in terms of how you feel and that sort of stuff.
Anthony (36) Family 3

I have never had that feeling of paranoia, except when I was younger perhaps. When I was a student I would get a bit paranoid because you are less experienced. When you have more experience you know what to expect, you know what is going to happen.
Mike (51) Family 4

2.1.2.6 Schizophrenia and psychosis

Cannabis users tended to argue that psychotic episodes usually only occurred in individuals that were already predisposed to psychosis or schizophrenic-type disorders.

The psychosis has to be there anyway. You have to have a tendency to be psychotic somehow and [cannabis] is just going to open that up for someone who is psychotic. They shouldn’t be touching drugs at all!
Linda (50) Family 1

Pete has a lot of mental health problems but it is all from the pot! ... I know his history and I know why he is psychotic. It is actually in the family and his mother and his sister are psychotic too but he is the only one out of them all that smokes [cannabis] so he is the one that goes in and out of Graylands and that ruins the family. Colette (36) Family 5

2.1.2.7 Cannabis withdrawal

Some participants identified that negative affect was problematic when individuals were experiencing cannabis withdrawal. Jenni (27) enjoyed using cannabis with her mother and sisters, however, she was concerned about long-term use and didn’t like how she felt the following day after having used.

When I am stoned I am absolutely happy and I can’t top it but the next day when I wake up to who I am, it is actually who I am, and I start to think, ‘hey, you know, there is so much more to life than to get stoned and sit in front of the TV’. I can see smoking pot having a positive effect at certain times and places but I don’t think continual use is beneficial. Maybe that is just me because I have got frustrations about it and because I struggle with stopping it.
Jenni (27) Family 12

Jenni was concerned that her mother was unable to stop using cannabis because she could not cope with the unresolved emotions that would surface whenever she tried to quit.

I have seen mum when she tries to stop smoking. She gets very tense and stuff comes up and she is more emotional and that is stuff that needs to come up and needs to be dealt with. Then you can actually move forward and you keep healing. We always have to

deal with shit but whenever she is smoking, that stuff isn't really coming up. It just stays there and then when she stops [using cannabis] it comes up again. Then she is like, 'well I don't want to stop because it is all coming up!'
Jenni (27) Family 12

2.1.3 *Passive smoking*

This minor theme encompassed two ideas about the impact of passive exposure to cannabis smoke by other family members: 1) Children; and 2) Infants. Even when children were aware that their parent was using cannabis, most parents kept their smoking out of the house and away from their children as much as possible.

[My children] are not very [exposed to it], because it is quite a big house, and they are usually down at one end of the house, in their bedroom or watching TV, and I am down this other end [out the back]. I certainly wouldn't smoke indoors. I don't normally smoke cigarettes in there either.
Mike (51) Family 4

Aaron lived in a small block of flats and his neighbour was a police officer, so he tended to smoke cannabis inside in his bedroom most of the time. He felt unable to open the window due to fear of his neighbours recognising the smell of cannabis.

On weekends I smoke in this room (lounge room) but when Jeff is with me I will smoke in my bedroom. ... I can't really smoke outside, there is a policewoman lives next door. If I was going to have a joint, I might even roll it out here [in lounge room] because it is not something I have ever hidden from him but I don't stick it in his face either. ... I honestly try and limit Jeff's exposure to any smoke. I don't think he ever breathes smoke. He may smell it from time to time but I don't think he would actually get any vapours in. It is more a health thing [than keeping it secret]. It is more exposure to the smoke.

Aaron (49) Family 5

Aaron's son, Jeff (12), was aware of having been passively exposed to cannabis smoke because when I asked him if he had ever smoked marijuana he responded by saying that he had not then said *"but I have probably a few times accidentally passive smoked by accident."*

Carol's daughter, Rachel (22), recalled that her parents and their friends smoked cannabis *"in the house, in the games room, in the back yard, wherever mum and dad were."* Her sister, Lisa, was not impressed about having been exposed to cannabis smoke throughout her childhood. She expressed her disgust about an incident when her sister was an infant of 3 weeks of age.

Mum has told me something that I think is pretty disgusting. Apparently the room was filled with smoke and Rachel was still a baby and she ended up being rushed to the hospital ... There was something obstructing her airways so it probably would have happened regardless. But I still don't think that having a newborn baby in a room full of smoke is acceptable... I would think when we were small children and them having friends around and [having] closed doors and windows and rooms full of smoke that is probably not the best thing for kids. [That is how you recall it?] Yeah, at times if they had friends over.
Lisa (25) Family 6

Carol argued that her daughter was intelligent so there was obviously no harm done. She justified the use of cannabis during pregnancy by comparing it with the use of heroin. A number of mothers in the current study informed me that they had used cannabis when they were pregnant or breastfeeding. During pregnancy it was sometimes used to alleviate nausea and improve appetite. During and after childbirth it was used to alleviate pain.

I smoked when I was pregnant with Rachel and I told the doctor that I smoked a bit of pot and I was pregnant. ... But he never said anything to me about 'don't do it.' He never said a word about smoking [cannabis]. You would think he would. I would have thought he might discourage me but he didn't. He didn't say anything Carol (50) Family 6

She never had any effects. She is intelligent. She has got a witty, dry sense of humour that girl. She is bright; she is intelligent. No harm done! Carol (50) Family 6

Colette had used cannabis when she was pregnant and breastfeeding her youngest son. She argued that it had been good for him.

I used it for morning sickness. With Jamie I had a lot of morning sickness. I had such a high hormone level I was vomiting for 8 months ... I had a lot of back pain ... so I took pot to handle the pain He came out fine and I did tell them [health professionals] about the mull, too. ... The thing is I was losing weight because of the morning sickness so I was trying to get an appetite. Then when I had Jamie, I smoked it because it was the only painkiller that would stop those awful gut pains, because I had been cut open and I had had the spinal fluid leaking out of my back, and I had massive headaches from that, so it was my life saver after my caesarean. I rang up one of the social workers and I said, "I am breast feeding, when can I smoke mull?" And she said, "express [your milk] then smoke, then don't express for another few hours" and it helped Jamie too.

Colette (36) Family 5

2.1.4 Social issues

This minor theme included two ideas: 1) Sexual; and 2) Conversation.

2.1.4.1 Sexual

Aaron and Colette stated that there were sexual ramifications associated with cannabis use.

Probably sex is another area [of concern]. You can become a bit obsessive with sex, especially with hydroponic pot, like suddenly 'where did those thoughts, fantasies or whatever come from?' Aaron (49) Family 5

2.1.4.2 Conversation

One of the other social consequences of cannabis intoxication was that it often impaired a person's conversational skills. Anthony (36) noted that he had used too much cannabis after his stepfather died and "went from having the gift of the gab to not being able to speak to people at all." Tamara was not impressed by her husband's ability to hold a conversation when he had been smoking cannabis. Lindsay (18) noted that "with [dad] he just talks about his theories and he kind

of rants a little bit.” Colette (36) was aware that she rambled on too much when she was stoned. “I don’t think people want to hear people rambling on about all this stuff which is totally irrelevant, which is what I do. It is relevant to me but not to them.”

2.1.5 Amotivational syndrome

This minor theme included five ideas: 1) Lethargy; 2) Social withdrawal; 3) Hangover; 4) Hinders progress; and 5) Education.

2.1.5.1 Lethargy

A lack of motivation and general sense of lethargy was often recognised as a side effect of cannabis intoxication. As Tina (36) stated, *“Whatever they do, they could do so much more if they weren’t a smoker.”* This statement was made when discussing how some people were able to hold down a professional role and be successful in life despite their cannabis use. Tina’s husband talked about his tendency to be lazy when stoned.

If I am stoned everything’s just an effort. That’s why I don’t like getting stoned unless I have got nothing on my plate. It’s too much of a drag otherwise. If you get stoned you are happy to leave it until tomorrow. If you want some dishes done, just stay away from the weed. I don’t handle it well and I don’t get the chores done that need to be done and I tend to skip things. You are running behind schedule, so it’s like, ‘oh [the kids] don’t need a bath tonight they can have one in the morning.’ I find that I make the lunches in the morning instead of the night, and when you wake up in the morning, it is all there waiting to be done.

Mark (32) Family 2

You lose your motivation when you get stoned. You don’t do as much. You kind of slip into complacency ... I have learnt that if I don’t want to do anything for the day, then it is fine to have a smoke in the morning. If I have things I want to do it is probably not so wise because I will just go ‘oh, I can’t be fucked.’

Jenni (27) Family 12

2.1.5.2 Hangover

Some participants felt as if they were still under the influence of cannabis or had a hangover from it the next morning.

I definitely get a hangover from it. Yeah and don’t talk to me for the first hour until I have got up and walked around a bit. It is definitely a hangover feeling. I have to give myself a good hour. ... I feel like I wake up stoned or hung over from it or just groggy.

Lynette (37) Family 7

Amber (13) had noticed that since her mother had stopped smoking cannabis *“sometimes she stays up later but she gets up earlier in the mornings.”*

2.1.5.3 Social withdrawal

In addition to feeling lethargic, cannabis users sometimes found themselves becoming socially isolated.

I would just lock myself up basically, not answer the phone and not go and see people, just keep isolated. I have seen it have that impact on other people, who have good jobs, and then they start smoking and drinking, and go into this horrible downward spiral because of it. If you smoke too much dope it can make you antisocial, you can isolate yourself.
Linda (50) Family 1

Craig (50) wondered if some of the social withdrawal occurred because people who were stoned found it difficult to socialise with people who were not stoned and tended to worry that others would judge them if they realised that they had been smoking cannabis.

Don't get so sucked into it that you become dependent on it and you can't enjoy a party unless you are totally stoned and then you think that because you are stoned and everyone else is not that you can't relate to them. You turn around and it is you who is wrong! You can become very paranoid and introspective and you have got to get yourself out there and in amongst it to be part of society. Again, is it the drug or is it society's view? The fact that they think you are doing something naughty and so you better hide away and make sure no one knows about it.
Craig (50) Family 9

2.1.5.4 Hinders progress

Mark (32) had heard cannabis referred to as a 'loser's' drug and he thought there might be some truth in this statement as he had recently ceased using cannabis and in hindsight recognised that it had been counterproductive in terms of reaching his goals, such as returning to university and being a good father and husband.

I don't think it is a very helpful drug in terms of getting your life together. If you are smoking heaps of weed, you are probably not going to get very far. I have heard it called a loser drug before and there might be some truth in that. It definitely doesn't help you to be successful in life, smoking heaps of weed.
Mark (32) Family 2

Mark's wife agreed:

We would go to marriage counselling, we would do all these things but we would come undone at some point. You would miss all your appointments and I always have lots of appointments because I have got so many kids.
Tina (36) Family 2

2.1.5.5 Education

Young people often pointed out that some of their high school peers had become involved with cannabis to the extent that they were unable to complete their high school education.

In high school there were a lot of boys that just threw their whole schooling away because they were always stoned and would prefer to go out and get stoned than go to school.
Heather (20) Family 1

[My friend] barely goes to classes. She skips classes heaps and the work that she does do isn't to her top standard and she is pretty intelligent. She just got in with the wrong crowd too early but she could do it if she just applied herself to it. She would be fine but I definitely think [cannabis] has affected her quite a lot, like her concentration levels and stuff. She has already started her [Year 11] exams and she has skipped three of them already.
Chelsea (15) Family 8

Mark (32) was still trying to complete his university studies and acknowledged that using cannabis had been detrimental to this goal. Mark's wife agreed, stating that, "While he has this big huge brain, [cannabis] just made him procrastinate; it made him not finish things."

It held me back for a long time; that is the reason I am 30-something and I haven't finished uni yet. I used to smoke weed all the time. Once you get past the first year easy stuff and it starts to get a bit harder and you need a bit more of a professional attitude, dope just doesn't work well with that.
Mark (32) Family 2

2.1.6 Physical effects

This minor theme included five ideas about possible physical harm due to cannabis intoxication: 1) Heart and lungs; 2) Muscular tension; 3) Appetite; and 4) Headaches.

2.1.6.1 Heart and lungs

Mark was typical of cannabis users, who often noted that consuming too many cones could lead to chest pain or coughing but had not become aware of the impact it had on lung capacity until after ceasing the use of cannabis.

With cones, there is a limit because your lungs get sore and it just starts to hurt. You get headaches and you get a sore chest, so you can only smoke so much. ... When I dramatically cut back from smoking heaps, I did notice a difference in my lung calibration but when I was smoking that much I didn't know what I was missing. I have more lung power [since stopping cannabis use]; it does affect your lungs because of the smoke and so I have just got more energy [now].
Mark (32) Family 2

2.1.6.2 Muscular tension

Aaron noted that because he would lose all track of time when he was stoned, he would sometimes be left with muscular pain.

I can get quite tense on pot, too. You can relax into a posture that is actually not good for you and when I am making something, for instance, I will be here like this [hunched over] and I lose track of time and I have actually been in that position for an hour and a half, so I have strained my back or my hands or something hurts because it has allowed your muscles to relax in an odd position.
Aaron (49) Family 5

2.1.6.3 Appetite

Some participants were concerned about the impact of getting 'the munchies' as their cannabis use led to increased appetite which can be linked to increased consumption of food.

I don't really want to smoke too much because I don't want to get the munchies. I get the munchies when I smoke, so I eat and I love food so I am a strict person who will go through a period when I just want to relax and for a week I will just smoke and smoke and I will eat and eat. Then I go 'okay, this is it; I have to stop; I have got to exercise'.

Piper (20) Family 12

2.1.6.4 Headaches

Lynette (37) complained that “hydro tends to give me a headache but there is nothing else around at the moment”.

2.2 Long-term risks

This sub-theme was about the perceived risks associated with ongoing cannabis use. It included seven minor themes: (1) Health; (2) Avoidant coping; (3) Financial; (4) Legalities; (5) Social; (6) Polydrug use; and (7) Intergenerational drug use.

2.2.1 Health

This minor theme included five ideas: 1) Heart and lungs; 2) Cancer; 3) Diabetes; 4) Gum disease; and 5) Toxicity.

2.2.1.1 Heart and lungs

The most frequently cited concerns expressed by cannabis users and their family members were related to the possibility of damage to the heart and lungs through smoking. Two participants were observed to be coughing throughout their interviews; both had been using cannabis on a daily basis. Lynette (37) was one such participant; she was noted to be using cannabis more excessively than other participants.

I am coughing constantly. I think about water on my lungs all the time. So maybe a few health issues, which comes with smoking - the same as cigarettes, the smoke will harm. If I smoke too much I get a bit chesty the next morning and I know it's not good for me, so maybe my health [is affected] a little bit but nothing else. ... I know that it is not good but it never gets to that point [where I have to stop]. I am just a bit chesty and my throat is a bit sore but it is all right. It is no big deal.

Lynette (37) Family 7

2.2.1.2 Cancer

Many users and their family members worried about the risk of developing cancer but many cannabis users also smoked cigarettes and this was often viewed as the greater risk. As Mike (51) said, “In terms of health, obviously you are smoking something so there is a possibility of cancer but if you smoke cigarettes anyway, you think ‘well, if you are stupid enough to smoke cigarettes, [cannabis] is not that bad.” Many of the children of cannabis users worried about the long-term

health risks associated with their parent's cannabis use. Rachel (22) and Lisa (25) both worried about their mother, who had been smoking cannabis for as long as they could remember.

I worry about her smoking. Me and Lisa are always going on about how bad it is for you and because she also smokes cigarettes, so both put together is obviously not very healthy. Obviously her lungs wouldn't be very healthy and smoking all that stuff could cause cancer.
Rachel (22) Family 6

2.2.1.3 Diabetes

One participant believed that using cannabis could lead to diabetes.

It can also cause diabetes and things because of the craving for sugar, so it is the medical aspect that I worry about more than anything.
Colette (36) Family 5

2.2.1.4 Gum disease

Others were aware that it had contributed to the development of gum disease.

I think it probably contributed to gum disease to a large degree, just having a dry mouth a lot.
Aaron (49) Family 5

2.2.1.5 Toxicity

Some participants preferred to smoke outdoor strains of cannabis, arguing that indoor hydroponically-grown cannabis was likely to have been exposed to toxic chemicals. Tina (36) was worried that “some people spray it with fly spray.” Aaron was more worried about the use of hormones.

By having bush, you also expose yourself to less of the crap they put in [hydro] to make it grow quicker. I knew this guy who was growing it in his bathroom for years ... there were three females in the house and there was this cannabis growing and he had big buckets of hormones sitting on the shelf. He used to sprinkle it liberally over these plants and I just wondered what effect that was going to have on their endocrine system. Who knows?
Aaron (49) Family 5

2.2.2 Avoidant coping

This minor theme captured three ideas: 1) Failure to deal with problems; 2) Avoiding emotions; and 3) Placebo effect.

2.2.2.1 Failure to deal with problems

It was acknowledged that cannabis, like AOD, could be used to avoid experiencing painful emotional states. Participants associated the ongoing use of cannabis as a coping mechanism with a failure to grow and to effectively address problems.

My opinion is that problems are because people are not addressing them. They are not negotiating their way through their own problems. ... There is a difference between avoiding the problem and between having a rest from the symptoms of the problem. ... I

have had the situation where I have thought “get some dope and forget about the problem” and it does work but of course it is not a long-term solution and if you keep on doing that you will go down the tubes.

Mike (51) Family 4

2.2.2.2 Avoiding emotions

Some participants acknowledged their use of cannabis to cope with painful emotions.

I used to use marijuana a lot when I was younger to sort of numb myself from a lot of what was going on. I have come to realise that now that I am older and deal with the things that would make me want to smoke marijuana, rather than smoking it and doing the whole ostrich thing.

Molly (19) Family 13

Jenni believed that her mother and her family would have been better off if their mother had taken the time to deal with certain problems rather than avoiding painful emotions through ongoing cannabis intoxication.

it is like you get in this place of where everything is fine and you are not quite in reality and seeing things as clearly as they are happening and it is easy to tell yourself things and to create maybe a thought like, ‘yeah, maybe things are okay’ and then you don’t move forward from that place, you just stay there. I see it in my old best friends and my sister. They are stoned so much and don’t get that chance to really break through and move forward. There were some serious issues in the family that needed to be dealt with and now we are all so confused because of it. We never took the time to deal with that shit. We could have dealt with it back then and it probably would have been a lot easier.

Jenni (27) Family 12

2.2.2.2 Placebo effect

Rachel (22) knew that her mother used cannabis to manage her stress but questioned its effectiveness, wondering if over the years using cannabis had simply become a conditioned response to stress that basically involved a placebo effect.

I think [mum] probably psychologically thinks that [cannabis] is what helps her with [stress] but I don’t think it would. It has just become a habit to think, ‘well, I am a bit stressed, so I’ll use that to calm me down’, more a psychological thing, ‘but I have had that so I should calm down now’. That would probably make her calmer more so than the actual effect of [cannabis].

Rachel (22) Family 6

2.2.3 Financial

This minor theme included three ideas related to the financial aspects of cannabis use:

1) Expensive; 2) Justifying the cost; and 3) Buying in bulk.

2.2.3.1 Expensive

For some people the cost of cannabis constituted about 10% of their income and many considered it to be expensive.

I am trying hard to think of the negative, obviously the money. It would occasionally have a financial impact on our household if I had to buy a 25. It costs me maybe \$50 a week for two or three little bags every week, which is maybe \$100 to \$150 per pay packet [fortnight], which is more than 10% of my pay. Aaron (49) Family 5

The cost of cannabis was the main concern that Tamara had with her husband's use of cannabis.

It is bloody expensive really for what it is. Those little bags, I can't believe they cost so much. I could buy a bottle of wine and it would last me all week, a \$10 bottle of wine. I suppose it is the amount rather than what it is. So it is not really the cannabis issue – it is just expensive from my point of view. The money pisses me off a bit because sometimes it is \$50 and sometimes it is \$100 a week and he is on quite a small income now. He was on \$1000 a week and now it's \$400 a week. So that \$50 to \$100 a week wasn't too bad because we were bringing in \$1400 but now he is on about \$400 and I am on about \$450, so that is about \$950 [sic] a week and \$100 of it. What is that? [That is 10% of your money]. Tamara (33) Family 3

Lynette (37) and her husband were spending approximately \$300 per week on cannabis but as their combined income was in excess of \$100,000 per annum they were not experiencing any financial hardship. Nonetheless, they were renting their home and Lynette remarked, "If I saved that \$300 per week I could probably buy my own house." Carol (50) and her ex-husband had also both used heavily and she admitted that they had experienced financial problems as a result of their cannabis use.

It caused a bit of financial problems. I was only working part-time and ... He wasn't really on a great wage and [we were] going through about an ounce of pot a fortnight, which was probably \$150 - \$180 back then. He smoked it a lot more than I did; I only went through a patch of smoking a lot when things started to go bad in the marriage. ... The girls were doing dancing and the dancing bill got quite high because I couldn't afford to pay it. Because I was trying to please him, I wouldn't tell him about bills that were due because I knew he wanted a smoke. I knew he wanted a beer and all that so I would just think, 'well I will pay that next pay' but things just kind of escalated. Carol (50) Family 6

Carol's daughters both raised the financial cost of cannabis as their main objection to parental cannabis use. They were disappointed that they had to give up dancing classes because their parents couldn't afford it and they didn't think it was right that their parents continued to have money for cannabis.

I think it did [affect the family's finances], yes. Probably one example, my sister and I were dancing when we were younger and we had to stop that. When we think back, we think our dad was buying ounces of marijuana, probably every week. So that would be, I suppose \$300 a week that they may have been spending on that when they could have been using it for other things. So we were quite angry that we had to quit doing dancing whereas it seem that it had more to do with supporting a habit like that. I think it got to a point where it was too difficult for mum financially Lisa (25) Family 6

2.2.3.2 *Justifying the cost*

Individuals who spent their money on cannabis rationalised and justified the decision to do so. For example, Anthony (36), preferred to smoke cannabis at home than to go out. *“I will sacrifice going out and that sort of stuff, just to go and buy a little bag but then I don’t like going out to pubs and things anyway.”* Despite being annoyed about her partner spending money on cannabis, Tamara went on to argue that spending money on cannabis was not that different to spending money on food or entertainment because such purchases were also consumed, leaving nothing to show for your money. Aaron felt some guilt about purchasing cannabis because he was on a low income but argued that he met his son’s needs by providing the basics, such as shoes and food, although there was very little left over for non-essential items, such as hiring DVD’s or having takeaway food.

We have always got money but we don’t always have lots, not much discretionary stuff to give. I must admit I feel a bit of guilt about it. Like if he says to me ‘can I get a couple of DVDs?’ and I have to go ‘can’t really afford it, mate’ and I am thinking ‘because I have just bought \$25 worth of pot’. So, it is a pretty minor impact; he has always got shoes and clean clothes and all that. I take duty seriously. His needs always come first.

Aaron (49) Family 5

Aaron’s ex-partner argued that although he was broke, she felt that he was doing his best to provide a good life for their son.

Lately he has been really broke but that is because he had his teeth done, he got a credit card, and he got the internet. That is fair enough. That is just trying to move up into the middle class and not making it with your salary and I understand that.

Colette (36) Family 5

Even Rachel, who had issues with her parents spending their money on cannabis, also acknowledged that in the absence of cannabis, her parents probably would have spent their money unwisely anyway.

I think it is hard to just blame the cannabis use for whatever happened in our childhood, it is more the whole picture. I think that if it was the exact same childhood just without the cannabis, I don’t think many things would be different. If the cannabis wasn’t there to spend money on they probably would have spent it on more alcohol or more things that shouldn’t recklessly have money spent on them, things that aren’t needed.

Rachel (22) Family 6

2.2.3.3 *Buying in bulk*

Some people funded their cannabis use through purchasing large (ounce) bags and selling smaller quantities to other cannabis users.

There are weeks when I am broke because of it. That is when there is nothing around but next week there is usually something around. So you might be broke this week but you know you won't be broke the next [through on-selling it to friends.] Liam (20) Family 8

Although purchasing cannabis in large bags represented a considerable saving by reducing the cost per gram, buying in bulk was not an option for people unless they were able to share the cost and the product, or they had the willpower to budget their use of the larger quantity.

He only gets a little bit at a time. I can't believe those little bags cost so much but if Anthony gets one of those [big bags], he will smoke more. The same with wine, if you buy the cask you have got it in the fridge and you drink more but if you have got a bottle, you make it last the week. We have tried that but it makes it more expensive [because he smokes more]. Tamara (33) Family 3

2.2.4 Legalities

This minor theme was about the potential for harm associated with the legal status of cannabis; eight ideas emerged: 1) Drug testing; 2) Employment; 3) Legal status; 4) Criminals; 5) Police attention; 6) Drug dealing; 7) Supplying family members; and 8) Being discreet.

2.2.4.1 Drug testing

At the time of interviews, police had recently introduced the first drug bus to the streets of Perth and as this was a current issue, the use of roadside drug testing was frequently mentioned by participants, who sometimes argued that their capacity to operate a motor vehicle was not impaired by cannabis use.

I don't feel as though my abilities are particularly bad in terms of my level of control and concentration but nevertheless it is still one of those things that you are not allowed to do. I am certainly more wary now that they have got the actual [drug] bus out there. It is [about] getting caught; I don't feel impaired at all. Mike (51) Family 4

I don't drive cars stoned any more whereas I used to. I'd smoke a joint when I was driving up the road. Yeah and not so much because it affects my ability, I would probably say that I am a better driver when I am stoned because I am a little bit slower, a little bit more aware, and a bit more cautious. It is just that with liabilities and insurance a little thing can turn into a big [thing] very quickly. So that's why I get everything done that I have to, travel in a motor vehicle and all that sort of stuff, before I will smoke.

Anthony (36) Family 3

Some drivers were aware that their capacity to operate a motor vehicle under the influence of cannabis was related to their tolerance as experienced cannabis users. They recognised that novice users, particularly young drivers, would probably be less able to drive safely when using cannabis.

I have driven cars really stoned before and I drive slowly and I watch the road and I drive down the road straight and I will be changing the radio and I don't find that it impairs my

driving. I actually think that it makes me a safer driver but it's the legalities and stuff like that. Anyway, I suppose that misses the point really, I mean it affects people differently and some people, depending on their use, how much you have smoked before, your present state of mind, etc. I don't think 17-year-olds should have a joint before they drive that would be the last thing I would condone.

Anthony (36) Family 3

Other participants were aware that their driving was impaired when they were under the influence of cannabis and some were contemplating ceasing the use of cannabis because they were worried that they might test positive for cannabis some days after using it.

Probably I will have to give up smoking [cannabis] because we are going to have that booze bus, which tests for amphetamines and cannabis, the little strip that they run down your tongue. That is going to be keeping a lot of people out [of their cars]. [But you don't drive when you have had a smoke?] No, it does impair your driving, but it's still going to be there [the next day]. It will be in your system if you have had a smoke the night before [even though] that doesn't mean to say that when I'm on the road the next day that you're off your chops.

Linda (50) Family 1

2.2.4.2 Employment

Random drug testing by employers was also raised and was thought to contribute to the current rise in the use of amphetamine-type stimulants (ATS) in Perth because such drugs passed out of the bloodstream more quickly and were, therefore, less likely to be identified during drug testing.

I know lots of people who work in the mines and I have heard it from many different avenues that people are going from marijuana to the hard drugs because they can't be picked up [on the drug tests]. If you have had a week off, even just one cone is too many, whereas if you have cocaine or amphetamines, it will be gone [out of your system] within a day at the longest. So it is safer to have the hard drugs.

Mike (51) Family 4

Many participants had attended work under the influence of cannabis, this was more likely to be the case if they were doing mundane tasks or boring jobs.

It is debilitating [sic] if you have to go and do anything that requires business sense. I find that even now if I have a smoke the last thing I want to do is go and work. I worked for probably 12 months stoned every day [in my previous job]. [These days] I normally try and make sure I get things done [first]. If I have to talk to bosses or anything to do with my work I get all that stuff done first and when I have finished with all my obligations, then I'll go out the back and have a joint.

Anthony (36) Family 3

I fill in on a Tuesday [doing pizza deliveries] and it's boring. So, I just go out to the car, take the end of a cigarette out, put some weed in there and smoke it like that. If I have some at work and I get to the [customer's] door and I'm stoned ... it's no skin off my back.

Mark (32) Family 2

2.2.4.3 Legal status

Participants were well aware that cannabis was an illegal drug and that driving a motor vehicle or operating machinery under the influence of cannabis was against the law, as was the purchase or distribution of cannabis.

I don't even think of it as a drug; I know it is but I think the effects of alcohol are worse and that is legal. So, what does it mean decriminalised? Does that mean it is legal?

Alec (20) Family 4

It is kind of weird because I know people who have gone to jail for dealing marijuana so I know it is not legal but I think small time use is a fine.

Lindsay (18) Family 4

Most participants disagreed with cannabis being illegal and were quick to point out that use of alcohol and cigarettes tended to result in much higher levels of harm to individuals and their families. Mike (51) was a high school math teacher who struggled with his personal views about cannabis being at odds with the legal status of cannabis. He argued that one of the reasons people got into difficulties with using cannabis excessively was because families were unable to model the appropriate use of cannabis due to its illegal status.

Don't forget we don't want to model law breaking. You are not able to model appropriate use because it is illegal, and that is what it boils down to really and that is why you get these people who just have cone after cone after cone because their modelling is based on watching people drink beer after beer after beer, and so that is what people do and that is problematic. If they were able to see their parents just having one joint or one cone and getting on quite well, they would think well that is how I am supposed to do it and they wouldn't go crazy. That is a nice idea anyway but I still think it is rather more complex than that. That is one of the things that the law has really up.

Mike (51) Family 4

2.2.4.4 Criminals

Some participants, like Aaron (49), had given a lot of thought to their status as an illegal drug user and were proud to live in accord with their own beliefs although this meant being outside the law. *"This whole area is something that I have actually thought quite a bit about, it is almost like a political position for me, being an illicit drug user."* Others found it more difficult to be labelled a criminal by virtue of their cannabis use alone and hoped that eventually the politics of cannabis use might change.

It is ridiculous that you are thought of as a criminal for doing it and you feel like a criminal when you have to go and ask someone to buy some [for you]. We are actually criminals in the eyes of the law, criminals! So you are a parent and you are a criminal and you are choosing to be one. So how does that affect your kids? I mean it must in some way or another. ... I can't see that the anti-marijuana campaign will grow. I think that will diminish and an acceptance of marijuana will increase over time.

Craig (50) Family 9

Another issue that came up was related to association with criminals, particularly through procuring cannabis. For the majority of individuals in this sample there was no other criminal involvement.

There is always a criminal element somewhere, when there are drugs. It is a criminal activity, drug dealing and drug use, and then you get to know other people who are in those circles.
Linda (50) Family 1

The laws force people to deal with people you would ordinarily never want to deal with, just to be able to get some sometimes. ... You have to deal with dodgy characters, people you would ordinarily choose never to want to deal with or associate with, just so as you can get a supply.
Phillip (46) Family 8

2.2.4.5 Police attention

Cannabis users were aware of the risks of unwanted police attention and exercised a level of discretion in terms of their cannabis use.

I can't really smoke outside, there is a police woman lives next door. The potential for problems with the law has had an effect, I guess. Knowing I am a criminal. I have had a couple of little brushes with the law over it but nothing that led to charges. It was the smallest possible amount that I had.
Aaron (49) Family 5

One participant informed me that her mother had been to jail for cannabis use when she was young, however, this was something that her mother had not shared with the interviewer.

I don't know if [mum] told you that she went away. ... She went to jail for a while and that had to do with her smoking.
Tess (34) Family 12

One mother told the story of how she had been arrested twice in front of her young children in their family home.

I got arrested. The girls were very little at the time. My eldest had just started school; she was ... 5 and Rachel would have been 2 and we get a knock on the door. It was two detectives at the front door ... Twice the girls actually witnessed me getting taken away in the police car for having plants. Our house had been broken into and that is what brought [the police attention]. The [offenders] got caught breaking into another house around the corner and because they got caught, they went, 'well we know where there are some plants' so they brought the cops here. ... Yeah, it was 20 years ago now, so it is gone, expunged now. Fortunately, you didn't really need a police clearance until a few years back and it was never really [a problem]. Now it's 20 years ago and it's wiped.
Carol (50) Family 6

Another mother had to explain the situation to her daughter who was present in the vehicle when she was caught purchasing cannabis.

A couple of years ago I was reversing out of my friend's house and the cops pulled up and I had a foil in my bra. ... [My daughter] was in the back, so I just got out of the car and said, "look this is what I have got, I don't want to make a big issue of it in front of my

daughter” and ... now I have got a criminal record from it and so now I have got to take that to my bosses because you have to show your police check. It was probably 3 years ago but it will stay with me for years and years. She usually she doesn’t come with me. Usually I don’t let her do that. I do it when she is not around. I don’t want her to be in that scene and be seeing stuff. ... I thought here she is, so I just told her. She said “you are an idiot mum. The police could have taken you to jail!” but that was it. She didn’t cry or get really upset. I said, “no, you don’t go to jail for it, you just get a fine for it.” I just have to explain it all to her so that she doesn’t get stressed. I don’t want her to worry that I am going to take it and die or anything like that but then I don’t want it to sound so great that she is going to want to go out and do it next weekend. Lynette (37) Family 7

Like Lynette’s daughter, younger children who were aware of their parent’s cannabis use were sometimes quite worried about what would happen if the police found out their parent was using cannabis.

If we get caught by the police, who knows what would happen because you are not allowed to do it. Well, you are, but you’re not in the same way. If [mum] gets caught doing it we might be taken away from her. ... Maybe someone might smell it or the people who are moving in next door might look over the back and see mum putting it in [to her joint] and stuff like that. When I move out it will still be a worry but not as much. It would still be a worry because if she gets caught then that would be a worry because I would have to go to court as well and I would have to tell them that she was doing it because I don’t like lying. Heath (10) Family 13

Younger cannabis users had also attracted the attention of police. Piper (20) had recently received a fine after being caught with cannabis at a hotel.

I got a fine recently. ... We went to the pub and I pulled out the weed and we started to roll a joint at the table. We were going to go out into the car park and smoke it. A security guard came past and saw it and she just jumped down my head and I said, ‘we are packing up, we are going to the car, it is fine.’ So anyway we walk [back] in and there is this lady with an undercover cop. Piper (20) Family 12

2.2.4.6 Drug dealing

Some young people admitted that they purchased ounces of cannabis to share with their peers. Despite the risks of being considered drug dealers, this way they were able to share in the purchase of larger quantities of cannabis, which was cheaper and more practical than each buying individual smaller quantities. Those who were able to obtain ounces would sell smaller quantities to their friends and this funded their own use of cannabis.

There are weeks when I am broke because of it. That is when there are no ounces around but next week there is usually something around. So you might be broke this week but you know you won’t be broke the next. I get the phone call [from mates] and then I do it up into bags then. That way if I do get caught it is not packaged up for resale. I never take money with me in the car. I either have sticks and no money, or money and no sticks, which isn’t a problem. So I am not totally stupid about that sort of shit.

Liam (20) Family 8

Some children admitted to helping themselves to cannabis from their parent's supply and distributing it at school; so essentially these children were selling drugs at school although they didn't really understand the implications of what they were doing.

We would steal it from Rachel [mother of a friend] when we were about 11. We would steal her weed bushes from the back yard and we would sell it to the kids at school and my brother because he was older. He used to buy it off us. We didn't know what to do except buy lollies with our money.

Heather (20) Family 1

2.2.4.7 Supplying family members

On occasion some parents had used cannabis with their children and sometimes family members would supply other family members with cannabis although this was generally uncommon between parents and their children. Liam (20) stated that, *"If there is really none around I can always go to dad."*

I have been at dad's house before when he has been having a smoke and he used to give me a smoke when I was younger. We'd be sitting around and have a joint but this probably wasn't until I was about 16 and he realised that I had smoked before and he let me have a smoke.

Heather (20) Family 1

2.2.4.8 Being discreet

Due to its illegal status most cannabis users, particularly the older generation, were careful about who they discussed their cannabis use with. Linda (50) said, *"There are only a few people I smoke with now. Not everyone knows that I smoke. I kind of don't put it out there."* Mike (51) was a teacher and his colleagues were not aware of his cannabis use. *"I am not going to divulge my cannabis use to my colleagues. I keep a lid on it and don't sort of talk about it much there."* In providing feedback about the interview process Mike explained that it had been good to be able to talk about his cannabis use openly because he rarely felt able to do so.

[Doing the interview] was a relief. It is nice to be able to talk about it because I think one of the big things is that you do feel a bit like you are an outsider in the world. You are forced to be outside the law, you are an outlaw and that does have a constant feel. It makes you feel slightly uneasy, not very much, but it is just a background feeling of being uneasy and wondering who is around the corner so to speak and so I do think that is a negative factor.

Mike (51) Family 4

Children whose parents used cannabis knew that it was not something they should talk about and some were concerned about the consequences of discussing it openly with the interviewer.

I definitely wouldn't [talk about this to my friends] because they might tell their mum. Their mum might tell another mum and my mum might get a bad reputation and some of my friends might not be able to come over. So I don't really tell anyone. I just have to be careful about this at school. People might start hating us, neighbours and that. They might do weird things like pick the plants and maybe throw a brick through the window,

that sort of stuff. You said that you won't tell anyone about this. Do you really think that when you put it in to your teacher that if she hears about my mum that she won't tell the police?

Heath (10) Family 13

We had police come to the door! So we knew you don't tell the police these things and you don't tell other friends unless they are with the group of friends that participated anyway with mum and dad. So we always knew not to say anything; that it was not okay that way but I suppose we didn't have a full understanding. Obviously we knew that they did it but we were told that mum and dad can get in trouble if people find out.

Lisa (25) Family 6

2.2.5 Social

This minor theme was about the negative social implications associated with cannabis use. It included six ideas: 1) Social disapproval; 2) Worry; 3) Partner complaints; 4) School; 5) Family tension; and 6) Substitute for attachment.

2.2.5.1 Social disapproval

Cannabis users were aware that opinions about the use of cannabis tended to be at one extreme or the other. Hence, they knew that they could be the subject of social disapproval, including condemnation from other family members. Tina (36) noted that opinions about cannabis tended to be polarised. *"Either it is 'just pot' or it is people like Mark's dad who go 'well it is illegal and it is bad. It is just wrong.'"*

[My daughter] is always saying 'you waste your money on it and I wouldn't waste my money on it' that kind of deal. My parents really hate it, too. They put it in the same category as heroin. My mum gets a bit pissed off now and then, you know, 'are you still smoking that?'

Lynette (37) Family 7

Of the people who I know, the most paranoid people are people who have never touched drugs. They are really paranoid about the stuff! ... That is harm associated with propaganda!

Mike (51) Family 4

Craig (50) believed that social disapproval contributed to paranoia and social isolation amongst some cannabis users.

You can become very paranoid and introspective and you have got to get yourself out there and in amongst it to be part of society. Is it the drug or is it society's view? The fact that you are doing something naughty and so you better hide away and make sure no-one knows about it.

Craig (50) Family 9

Children of cannabis users knew from a young age that cannabis use was not socially acceptable and, particularly when they were younger, they were sometimes embarrassed that their parents used.

We knew that it wasn't accepted in the community. So it wasn't something that we were allowed to talk to our friends about even though I suppose a lot of our friends also had

parents that would have smoked cannabis anyway. So it was just something that we didn't discuss with other people.
 Lisa (25) Family 6

I used to be a bit embarrassed about [dad's use of cannabis] because I thought it was a 'bogan' thing. At first when my friends started coming over, I just wanted to be a normal family. It took a few times [of dad smoking cannabis in front of my friends] to get used to it. ... "Lindsay's dad is smoking weed." I don't really see it as being very socially acceptable in the middle class society but I know that is my dad and he will never change and I don't think that he likes to be classed in the whole middle class bubble the way that my mum does.
 Lindsay (18) Family 4

2.2.5.2 Worry

Many of the children whose parents used cannabis had come to terms with it as they grew up. Lindsay admitted that, *"It used to worry me. I used to worry quite a bit [about dad smoking cannabis]."* Younger children, particularly those who had not yet had any personal experience of cannabis use, tended to have greater concerns about their parent's cannabis use. Jeff (12) believed that cannabis was *"just as bad as other drugs, maybe even worse. [Marijuana] is a drug and it is something that could kill someone if they smoke it too often."* Heath (10) was constantly worried about his mother's cannabis use.

I would rather call it 'green' because now I know what weed is, it is sort of a strong way to put it, so saying green it makes it easier to say. If you say 'marijuana' then sometimes you think that some people will hear and they might think that you are doing it or you are asking where it is, stuff like that. If you say green they might just think you are talking about something else. I would be less worried [if mum didn't do it, less sort of stressed and tensed up sometimes. ... Sometimes I get a bit afraid because mum has got 3 pots; she calls them baby plants. Sometimes I feel like setting them on fire. I am scared. I am annoyed and angry basically.
 Heath (10) Family 13

Heath's older brother, who did not use cannabis himself, worried about his friends and younger siblings using cannabis.

I am actually more worried about the friends they make, the crowds they hang out with, and what they do to get it, like where would they buy it from, what house, than I would be about the long-term effects.
 Clifford (17) Family 13

2.2.5.3 Partner complaints

In addition to parents worrying about their children using, and children worrying about their parents using, cannabis sometimes also caused friction between cannabis users and their partners. Mike recalled that his ex-wife didn't like him using cannabis. She had used cannabis herself when they were younger and he felt that she was overly concerned *"with what other people might think."* Tamara didn't use cannabis herself but she had known that her husband was a dedicated cannabis user when she got involved with him. On the whole, she didn't really mind his cannabis

use, although sometimes she thought it was very immature of him to get stoned and play on the computer.

To get ripped and go on a computer game is a teenage thing to do. Sometimes on the weekends when we don't have the kids, he will go and have a smoke and that pisses me off a bit because it is our time and he goes and has a smoke and just gets on the computer. I think it is more the computer [than the pot] because even if he didn't have a smoke he would get on there anyway. Yeah. I don't think it is the pot. He has always been a pot smoker, so, yeah.

Tamara (33) Family 3

Tina and Mark both used cannabis but when Tina stopped using and Mark continued to do so, this caused problems in their relationship “because I had stopped and he wouldn't and I tried to get him to stop.” Mark's continued use of cannabis and alcohol led to violence in their home, which resulted in a separation, his attending a residential rehabilitation program, and their subsequent reconciliation. When interviewed shortly before things deteriorated, Mark was still using cannabis and Tina had stopped.

I am not going to have this minor little thing dictated to me. So it's like, 'fuck it, I am having a cone', and she gets on her moral high ground but she is usually just misdirecting other anger onto something that isn't really a problem.

Mark (32) Family 2

Aaron and Colette had also had disagreements about his cannabis use in the past, although when interviewed they were separated and both were using cannabis.

She would get annoyed at me; well actually I got annoyed at her saying that I was dependent on it, that when I didn't have it I was a different person and I wasn't as tolerant and I wasn't as nice to her and that. ... I didn't notice but she certainly perceived of me as being in a different frame of mind.

Aaron (49) Family 5

I used to kick him out of the house when he smoked. I used to say “don't you dare bring that smoke in here!” Way before children; it wasn't about children, it wasn't about passive smoking. It was about me getting stoned and not being able to dance and it was also about him constantly smoking. It was taking him away from me, it was taking part of him away from me, and when he couldn't get it he became a monster and I was just like “you have got an addiction! You are addicted.” But he would deny it and it upset me because I wasn't addicted to anything at that time.

Colette (36) Family 5

2.2.5.4 Family tension

When cannabis use is a regular part of life in the family home it sometimes creates tension as issues arise between family members due to their use of cannabis or their desire not to be involved.

I woke up yesterday and scared the whole family because this had been my fifth night of smoking and I just freaked out a little bit. I got really upset and was crying and angry. Piper and mum felt really guilty and they didn't know how to take it and I think they were angry at me for making them feel bad but I was just angry with my own [self and] what

was happening. It wasn't their fault. It is my fault because I can just sit on the couch and not get stoned. I am not smoking tonight! ... I think it is about time for me that I actually got strong enough not to even get involved when I come here. I think it is time for me to stop doing that.

Jenni (27) Family 12

2.2.5.5 Substitute for attachment

For some individuals cannabis represented a substitute for an attachment figure.

Sometimes it is because they can't be bothered [seeing people] because they are loving a smoke instead. I was sitting there and I was looking at a joint the other day and thinking, 'you are like my boyfriend. You are my boyfriend and I have chosen you over every other person in my life, including my child'. I have been thinking that. 'I am just so scared. I am really frightened of feeling like myself. I have been trying to work out why I can't [stop], why I haven't done it and I found there was a fear of being me by myself without this person or this feeling, that I need this, that it helps me, but how much does it?

Tess (34) Family 12

2.2.5.6 School

Children of cannabis users had to be careful about talking to other children at school as they worried about the consequences of people finding out that their parent used cannabis.

I definitely wouldn't [talk about this to my friends] because they might tell their mum. Their mum might tell another mum and my mum might get a bad reputation and some of my friends might not be able to come over. So I don't really tell anyone. I just have to be careful about this at school. People might start hating us, neighbours and that.

Heath (10) Family 13

Jenni recalled finding little bits of cannabis inside her books when she opened them at school.

You go to school and you have got a book and you open it up and somehow there is a dried leaf in it. Someone must have rolled up in a school book and you open it up in school and that sort of stuff. I just remember opening it up and thinking, 'I wish they would stop doing that'. You can't leave anything lying around. That is the thing, it was just a book that was on the table and they were just rolling a joint and not realising that it is your school book and when you take it to school the next day... I hope I said something about that!

Jenni (27) Family 12

By the time children were at high school, they usually knew someone in their peer group that was using cannabis.

I worry about my friend all the time because it is not like she is together all the time or anything. ... Sometimes she won't turn up to school at all because she is so stoned and she gets really sick really easily.

Chelsea (15) Family 8

Younger children sometimes had strong feelings about attending high schools where they thought that cannabis and other drugs were likely to be available. Hope (11) who was a very intelligent and studious child said she would rather drop out of school than attend a high school where students used cannabis.

[Name of] High School actually has kids dealing in the ground and smoking! Jane told me; Jane is [my brother's] girlfriend and you notice kids who are smoking in the grounds, going into groups and talking hushed and making odd movements. They were standing right by the fence and smoking. They were rollies so you couldn't really know what was in them. Maybe I shouldn't have dobbed but the principal didn't exactly do anything about it. He just ignored it so I am not going to that high school! [I think it happens at most high schools]. Then I am going to drop out! Hope (11) Family 13

2.2.6 Polydrug use

This minor theme included three ideas: 1) Gateway hypothesis; 2) Tobacco; and 3) Alcohol.

2.2.6.1 Gateway hypothesis

Heather (20) believed that cannabis use often led to the desire to try other illegal drugs.

A lot of the time smoking weed leads to other drugs. You start experimenting with weed and I think that leads on to wanting to try other stuff. For a lot of people I know, even for myself, [cannabis] was the first thing I started and from there... Heather (20) Family 1

Her brother had significant problems with drug use, over and above the use of cannabis, and Heather believed that because their father had allowed him to use cannabis this had contributed to him getting involved with heavier drugs.

Dad was a lot more lenient and the way that he smoked weed was a lot different, so I think Chris would have done that because he could get away with it more, and that led onto other things. He started using other drugs because he could and because dad would let him. Heather (20) Family 1

Aaron (49) and his former wife had developed problematic heroin use many years before and Aaron explained that his introduction to heroin came about through purchasing cannabis.

The guy that I used to get pot off had shown me where he kept his stash. He was a good friend and if I went over and he wasn't there I could get it and leave the money. One day when I went, as well as the foils in the bag there were all these little paper envelopes. I just took a couple of foils and left the money. When I saw him next, I said, 'were those envelopes 'go' or 'slow'? He said there was a couple of each and I said, 'well how much would the slow ones be?' Aaron (49) Family 5

Mike (51) explained that when he was a young man living in the UK drug dealers were instrumental in introducing their cannabis customers to other illegal drugs.

The only gateway aspect is the fact that you are going to buy from someone, a dealer, and he might say "have one of these, go on, I won't charge you. Try one of these, its free, it's on the house." That is standard procedure in England with anyone who is a drug dealer. Cannabis is their stock in trade but then they will give you other samples of stuff and then after a while, it will be "well, I have given you three, it is about time you bought some." So that is how they get you started with the harder drugs and there is no doubt that that is the only gateway factor but that was a long time ago, twenty years ago.

Mike (51) Family 4

Mike had not experienced this in Australia but was worried that it was currently happening due to shortages of cannabis and availability of methamphetamine. Other participants also mentioned that it was now easier to obtain methamphetamine than cannabis.

[It hasn't been like that] in Australia, the [dealers] I have known don't [do that] but it is getting that way because there is such a shortage [of cannabis], you see. We are starting to see that now. I was talking to someone who says people are actually forced into hard drugs because they can't get cannabis. I have been told that a lot of [the cannabis] is going up to Broome and so forth where they are selling it for a lot of money but the other thing is that you can get the same profit from ice, which only takes 24 hours to make, whereas there is a 3-month risk factor for growing pot and so people are selling ice.

Mike (51) Family 4

I never thought that it necessarily leads to heavier drugs. The use of marijuana and the leading to heavier drugs is a sole result of lack of supply. It is too bloody hard to get hold of [cannabis] but there is something else that is easier to get.

Phillip (46) Family 8

2.2.6.2 Tobacco

Many of the cannabis users in this study also smoked cigarettes and even those who didn't smoke tobacco sometimes put it in their joints to make them burn better or to fill the joint so that they used less of their cannabis supply. Participants often talked about how adding tobacco made cannabis more addictive and how the pairing of the two made it more difficult to stop smoking either. Aaron (49) stated that *"I smoke more cigarettes when I have been smoking pot."*

One of the bad things about weed is that it does make me more partial to cigarettes. I am sometimes aware of that when I have a cigarette. I think that came from mixing the two together. Now I usually get a craving for cigarettes after I have a cone or something. After I have a quick joint, I smoke cigarettes for a few days, then after a few days I just think "how disgusting!" I am actually more worried about the harm to my lungs from the cigarettes than the dope. It makes me want to smoke [cigarettes]. I have stopped splitting the weed with tobacco and that has made a difference. Otherwise you are getting the cravings for weed and for tobacco.

Mark (32) Family 2

Children of cannabis users tended to be more concerned about the risk of cancer from their parent smoking cigarettes than any risks associated with their cannabis use.

[So you don't really see dad harming himself through cannabis use?] No, I do see him harming himself through smoking cigarettes, which he does, and I don't agree with smoking cigarettes but he is addicted to them and he has tried to quit many times, so there is nothing we can do about it.

Alec (20) Family 4

You hear that smoking cannabis isn't bad for you, so I don't worry about that much anymore. I worry more about him smoking cigarettes. I think because probably the actual volume of cigarettes smoked is more than the marijuana

Lindsay (18) Family 4

2.2.6.3 Alcohol

Most participants compared their use of cannabis with the use of alcohol. There were some reports about issues associated with combining cannabis and alcohol use. Doing so had been problematic for Mark who ended up in residential rehabilitation and eventually ceased using both cannabis and alcohol altogether.

I got back on the booze and started smoking heaps of pot every day. With the drinking I deluded myself for a little while because I thought, just a drink here, a drink there. With the dope I have always been able to have some and just smoke it occasionally and if you asked me at any time what my favourite was, it would change. ... If I started smoking and drinking now, within 6 months down the track I would be a mess. And it depends what order you would have them. If you have a cone and then have a drink, that is one thing but if you have a few drinks and then have a cone on top of it, I would get blackouts. The order you do them in does affect it. If you have some cones with alcohol, the quickness with which that gets into your body, I have noticed that for sure. If I had that cone after too many drinks, I mean all that alcohol hasn't kicked in, and so when it does, it kicks in even harder, and I would get blackouts. Mark (32) Family 2

Mark's wife and his daughter both confirmed that when he had been using alcohol and cannabis together, Mark would often pass out. Tina said, "He started drinking alcohol too and he would just sit and fall asleep on the lounge." Mark's 13-year-old daughter was not impressed when he fell asleep while actually helping her with homework.

He doesn't fall asleep as much [since going to rehab]. Like when he is helping me with my homework he doesn't just kind of drop in the middle of it. He was so drunk one night, he was helping me with my English assignment and he just falls asleep! Jodie (13) Family 2

2.2.7 Intergenerational drug use

This minor theme contained two ideas: 1) Easier to use; and 2) Stealing parent's cannabis.

2.2.7.1 Easier to use

Both of Linda's children used cannabis and other illegal drugs. Her son and ex-husband had developed problematic drug use and sometimes the children blamed their mother for their drug use because they were aware that she had used illegal drugs, including heroin, when she was a teenager. Linda argued that, although we set an example for our children, there are many other factors that come into play in determining whether they will use drugs or develop problematic patterns of drug use.

I know other couples who have smoked around their kids and couples who don't smoke. One couple, he still smokes, she doesn't, and neither of their girls smokes at all. There are other couples who have smoked openly in front of their kids and their kids don't smoke and it can go the other way too, where the parents smoke and the kids do. ... You can have parents who were alcoholics and drug addicts and you can do that in front of your

kids and it doesn't necessarily mean to say that the children are going to. Sometimes they'll do the opposite, because they don't want to be like that. I think it's genetic basically. It's in your genes if you're going to be an alcoholic or have other substance abuse problems. Sometimes I don't think you've got a choice. Linda (50) Family 1

Linda's partner, who was not a cannabis user, did not believe that her children's use of drugs was related to their mother's use of cannabis.

It is often put forward that, "it is all your fault because you were a drug addict." But that is just them using an excuse. So the actual answer from my perspective on that is "No, I don't see any relationship between Linda and the way she has been using [cannabis] and her fact of use either as having any relationship whatsoever to whatever Chris and Heather have got involved in. They have got involved in their own way, independent of anything that Linda was ever connected to. There is literally no person that Linda knows in a social sense, family wise, through me or through herself that connects to Heather's and Chris's indulgences at whatever level they happen to be because there is no relationship there. Paul (54) Family 1

Linda's daughter disagreed, in the sense that she had found it easier to use cannabis than her peers because she knew that her mother was a cannabis user.

Using cannabis just felt a little bit more comfortable and I don't have to hide it, therefore, it was easier for me. As a kid I always thought, I won't get into much trouble because mum does it. When I was 13 or 14, I went through a stage where I thought it was really cool and I was never scared of mum catching me because I could just turn around and say, 'well, you do it!' Heather (20) Family 1

Alec (20) also believed that his use of cannabis was influenced by his father's attitude and use of cannabis. *"If [dad] had been fairly against it then I probably wouldn't have been so likely to have started but I don't think it was too big a deal."*

2.2.7.2 Stealing parent's cannabis

Despite arguing that her children's cannabis use had nothing to do with her own use of cannabis, Linda admitted that her son had stolen some of her cannabis when he was a teenager.

The best smoke that he had, and it's nothing to be proud of... probably he was about 14 or 15 and he found some of my smoke one day and a couple of years ago he told me that it was the best smoke he has ever had. He's never had anything that has ever come anywhere near it. I think it must have knocked their socks off, him and his mate. Linda (50) Family 1

Unbeknownst to Linda her daughter had also been stealing cannabis at a young age and had stolen it from another mother who Linda smoked with.

This was how we started smoking weed; we would steal it from Rachel [friend's mother] when we were about 11. We would steal her weed bushes from the back yard and we would sell it to the kids at school and my brother because he was older. He used to buy it

off us. We didn't know what to do except buy lollies with our money.

Heather (20) Family 1

Summary.

In addition to citing a variety of benefits attributed to their cannabis use, participants also identified a wide range of potential harms associated with cannabis use, including: physical risks associated with smoking ; risks associated with passive smoking, particularly by children; and the risk of inducing or worsening mental health issues, such as depression and anxiety. Participants were aware that using cannabis could be detrimental to their cognitive processes, especially in regard to their short term memory and attention. They reported that cannabis could reduce their motivation to complete daily household tasks and sometimes contributed to social withdrawal.

Participants were aware of the risk of using cannabis to avoid dealing with problems and knew that cannabis could make them less articulate. They also acknowledged that, used excessively, it could hinder progress toward important goals, such as completing high school or university. Furthermore, some participants spent large sums of money on the purchase of cannabis. Parents who used cannabis worried about the use of cannabis by their children but argued that they would prefer the young people to use cannabis rather than alcohol or other illegal drugs, which they considered to be much more harmful.

Participants recognised that some individuals would develop problems associated with their use of cannabis but argued that this was more likely to occur in individuals who were specifically vulnerable to developing drug problems, where other drugs and alcohol were also used, and when cannabis was used excessively. Although identifying a wide variety of potential harms associated with cannabis use, most participants argued that their own cannabis use had predominantly been managed in such a way that they had personally experienced few, if any, problems related to their use of cannabis. While family members usually confirmed this view, children often expressed concerns about their parent's use of cannabis. Throughout this theme a number of harm reduction strategies were identified and these are further elaborated upon Theme 7.

Theme 3. Problems

This theme included participants' reflections about problematic use of alcohol and other drugs (AOD) including cannabis, by individuals other than the nominated cannabis user. Six sub-themes were developed: (1) Soft drug choice; (2) Drug-related problems; (3) Dosage control; (4) Lifestyle factors; (5) Long-term cannabis use; and (6) Quitting or reducing. Throughout this theme the nominated cannabis user's views about whether his or her use of cannabis was

managed in a way that minimised harm to family and self were compared with the views of other family members.

3.1 Soft drug choice

This sub-theme encompassed perceptions of cannabis as a ‘soft’ psychoactive drug that could be used frequently over many years without necessarily having a detrimental impact on the user’s day-to-day functioning. It encompassed seven minor themes: 1) Acute effects; 2) Wears off quickly; 3) Chronic effects; 4) Alcohol; 5) Other drugs; 6) Lack of withdrawal symptoms; and 7) Affordable.

3.1.1 Acute effects

In terms of the acute effects of cannabis intoxication, cannabis users were asked what behavioural changes they were aware of when they had been using cannabis and other family members were asked about any changes they noticed when their parent or partner had been using cannabis. Linda’s long-term partner and her daughter both mentioned that Linda used cannabis conservatively and stated that there was very little change in Linda’s behaviour or demeanour when she had been using cannabis.

I have never really seen Linda what you would call stoned, really. I mean she has never, ever really got herself to that point. Whatever she does, she does very mildly. Yes, I can tell; I guess it is probably just a mellowing out of whatever she had been [like before using].
Paul (54) Family 1

I don’t think mum changes at all when she has a smoke. She doesn’t get drowsy or giggly or anything. She maybe gets a bit more relaxed, that is all. Mum never changes the way she acts or anything but I can tell when she has had a smoke. I can smell it. When I was [a child], I had no idea when she was smoking it.
Heather (20) Family 1

3.1.2 Wears off quickly

Some participants, including Heather (20), noted that the effects were usually short lived in any case. “It doesn’t really last long. If you have a smoke, you know you are going to be okay in a couple of hours.”

If you have gone out to a friend’s place and you get there and you have a few and you sit down and you enjoy the evening stoned together, when you get up to go home, you are not stoned very much anymore. You get yourself smashed the instant you get there and then you enjoy that feeling for an hour or two depending on how good the stuff is and then you go home and you have [already] come down.
Craig (50) Family 9

Mike (51), who used cannabis more often than Linda, also argued that it had little effect on his behaviour stating, “I don’t feel as though my abilities are particularly bad. In terms of my level of

control and concentration I don't feel impaired at all." Mike's son and daughter agreed that it had little influence over their father's behaviour and argued that the effects of cannabis were so moderate that one could present as normal to another person in any case.

I don't feel that it affects his parenting style or ability. I don't even really know when he is smoking [cannabis]. Sometimes you will see him smoking but in terms of his behaviour, there is no sort of detrimental effects to his parenting skills. You usually don't notice it much in his demeanour; he is always pretty laid back. Alec (20) Family 4

I really can't tell because he doesn't smoke a lot. He just kind of has a joint or two, so I don't think it affects him a lot. He doesn't get really, really stoned or anything. I can't really tell actually. If he is just sitting out the back doing it, then he is just normal. You can't tell when he is really stoned because if he is, it is easy to hide it. Sometimes I would be at my mum's house, and I would be stoned and she never knew because you can just hide it from people. Lindsay (18) Family 4

3.1.3 Long-term effects

Most of the nominated cannabis-users in these families had been using cannabis for decades and were asked to think about any detrimental impacts that their long-term or chronic use might have on their functioning, such as memory problems or other side-effects that did not ameliorate when the individual was no longer under the influence of cannabis. Anthony (36) who had been using cannabis daily for much of his adult life, said: *"If it wasn't for the red eyes and there weren't the legal responsibilities, then I could probably be quite functional smoking every day."* Anthony's partner, Tamara, who does not use cannabis herself, agreed that her partner's long-term use of cannabis had not noticeably affected his functioning. *"He is definitely functional. It's good; he is more relaxed."* Mike was a high school teacher and when he resumed using cannabis after a long break he was concerned about any impact it might have on his overall functioning.

When I started re-using it, my first real concern was that it would affect my work [teaching high school maths]. I monitored that pretty closely for the first few years and it has no effect on my work performance at all, which is reassuring. But also I have found that it hasn't really had any negative effects on my life. But obviously the thing that worried me at the time was 'is this going to have an effect on my work?' Because that is the big problem, but no, it hasn't had any effect on that, as maybe alcohol would have done. So I thought it was very good in that respect. Mike (51) Family 4

Mike's daughter, Lindsay (18) agreed that her father had *"always been able to function and do stuff."*

3.1.4 Alcohol

Participants were keen to make comparisons between cannabis and alcohol. Like many other participants, Anthony (36), argued that using cannabis was “no different than coming home and having a beer after dinner, except beer will make me feel defective more than what a joint does.” His wife, Tamara, agreed that “alcohol would have a worse impact on him. Out of the two evils, I think it is a better way to go, less of a poison, less toxic.”

Most people come home and grab a beer. A beer is not so good for you. It just suits me better, I think, having a joint. I find that it doesn't make me tired; beer makes you tired. So, if I have a couple of beers, then I will start to go to sleep, start to get tired and then have a nanny nap. On cannabis, the next day I don't feel as though I am groggy or anything.
Mike (51) Family 4

Mike's son also argued that cannabis was safer to use than alcohol.

My theory on dope is that it is better than alcohol. I reckon it seems safer as well. I haven't looked at the studies or anything like that but just the way it affects my brain; it doesn't seem to be as bad. I mean you can have a big session and have lots and lots of cones but you don't ever get violent. Whereas if you have lots and lots to drink people get violent. But if you have lots and lots to smoke all you do is get really hungry and you chill out and eat and you don't feel like doing anything really. It is a much more relaxed kind of feeling and its better I reckon, more chilled out. I think alcohol is probably worse for hangover effects. I don't even think of [cannabis] as a drug, I know it is, but I think the effects of alcohol are worse and that is legal.
Alec (20) Family 4

Mike's daughter noted that behavioural change was more noticeable in her father when he had been drinking alcohol compared with smoking cannabis.

If he is just sitting out the back [smoking cannabis] then he is just normal but you can tell with the drinking. You can tell when he gets drunk, but you can't tell when he is really stoned.
Lindsay (18) Family 4

3.1.5 Other drugs

Participants were convinced that cannabis was less harmful than other psychoactive drugs, including other illegal drugs and prescription drugs.

Everyone starts off by smoking a bit of weed because it is the safe drug when you want to try something new. I know people that use cannabis really heavily every day, all day, and smoking a lot and then I know people who use other drugs, like rock all day, every day, and they are just far worse off. I don't think you can ever get to the same extent by just smoking weed at the same level.
Heather (20) Family 1

I don't think of cannabis as an illegal drug. It is just a bit of pot. It is not like pills or powder or anything like that. It is just pot. You can grow it in the ground and I think it is decriminalised anyway.
Tamara (33) Family 3

Some participants, such as Mark (32) and Piper (20), had used cannabis to minimise the effects of withdrawing from other drugs. Colette (36) could best be described as a polydrug user; heroin had been her drug of choice. When interviewed, she was in the process of withdrawing from drugs that were prescribed to assist with heroin cessation.

I have been having [cannabis] lately because I have been desperate for pain killers. Instant! Also [my hands] shake so much I can't roll [a joint], that is my problem at the moment [with] the detox. At the moment I really need to get rid of nausea. [Cannabis] has actually been a solution to many problems more than to start one off. Yeah, the medicinal side and the emotional side, and usually I have it after a hard day. Yes, I am having a lot more [cannabis] lately but then I have hard days every day at the moment.

Colette (36) Family 5

Colette's son, Jeff (12), was invited to tell the researcher why he thought that some adults would smoke cannabis. Jeff said, "Maybe they are trying to give up something but have gone on to something else [cannabis] instead". As this was exactly the situation with his mother at the time of interview, Jeff was asked if he knew someone that has gone onto cannabis to get off something else. However, Jeff did not identify his mother, stating, "No, I don't think so. I just think that is what happens sometimes."

3.1.6 Lack of withdrawal symptoms

One of the main things cannabis users in this study ascribed as a benefit was the lack of withdrawal symptoms they experienced when they went without cannabis. Anthony (36) stated that when he ran out of cannabis he would "sometimes get that niggling little bit of a feeling" but that it was so mild that "it might be next week before I have another joint." His wife observed that "He gets a bit edgy, that's all." Mark described having ceased cannabis use for a few months not long before the interview.

There were no dramas stopping after a few days and I thought 'this is good'. I don't get cravings like I used to; I just have it because I enjoy it. If I can't get any, it doesn't cause me too much stress any more but I still like to have it there. You just get cravings. That is all. The acute cravings, for me, only last 2 or 3 days.

Mark (32) Family 2

3.1.7 Affordable

The use of cannabis was a relatively inexpensive option for many users particularly when individuals grew some of their own cannabis. Mark (32) said that when he and his wife were both using cannabis it would cost them no more than \$50 per week. Mark and his wife have a large family (5 children) and he justified the cost on the basis that "our chocolate budget is more than

that!" Mike compared the cost of staying at home and smoking cannabis with spending the evening at nightclubs.

Certainly in terms of money, it is cheap enough. I think it is very, very cost effective. A \$50 bag would probably last me 2 to 3 weeks. For me, it is a very cost effective thing. There is an old saying, "dope gets you through periods without money better than money gets you through periods without dope." It is an English saying; it is about blow. [Cannabis] is definitely cheap because you can just sit at home and if you go to Northbridge, you can spend \$100 to \$150 in one night. If you sit at home with a \$50 bag, you probably will only use a bit and you are naffed [polite British slang for fucked], you have a good time and it will cost you \$10, if that.

Mike (51) Family 4

Colette explained that although she enjoyed using cannabis, she rarely spent money on it and, like other participants, had grown some cannabis at home.

I don't usually buy it. I wouldn't dream of it. If you can grow your own, why? Grab as many seeds as you can from one sachet and go for it. I used to spend nothing. I never ever spent one cent. The most I had ever spent on mull was \$25 ever and that was recently. I never ever had to pay for it. It has always been just handed to me. It is a society drug and it is also grown in pot plants. I have grown it myself. I have grown hydro under grow-lights. I really enjoy the growing of it. We had a sort of a hydro setup with the grow lights in the spare bedroom and we just grew heaps and smoked it.

Colette (36) Family 5

3.2 Drug-related problems

This sub-theme described family members' recognition that the use of AOD could be harmful and identified the perceived differences between problematic drug use and well-managed drug use. It included elaboration on the notion of polydrug use and participants' views that individuals were more likely to develop problematic drug use if they were using AOD in addition to cannabis or if they were using cannabis to excess. This sub-theme included eight minor themes: 1) Recognition of problematic use; 2) Polydrug use; 3) Excessive use; 4) Individual differences; 5) Cannabis dependency; 6) Quantifying use; 7) Inconsistencies; and 8) Perceptions of control.

3.2.1 Recognition of problematic use

Despite their long-term use of cannabis participants recognised the potential for cannabis use to reach levels that might become problematic and argued that they mostly used it responsibly rather than recklessly.

I have seen people overdo it. Some of my older friends who smoke too much and lose the plot. They spin out when they haven't got any dope. I remember seeing them and it was a bit of a benchmark for me. "Why would you want to be like that?" I don't want to be like that, to have to have things to be able to function, and if I haven't got it, well, it's no good. It has got you then. It doesn't matter if it is marijuana or whatever, potato chips, anything, as soon as you start relying on too many things, you disadvantage yourself, and

you need more to function. Even with other drugs, I think there is such a thing as responsible drug use, it's just you have got to be responsible and if you are not, you will pay the price and for some drugs you will pay a high price too. It does do some harm but it depends on how you use it. It is up to you.

Anthony (36) Family 3

Nominated cannabis users argued that they monitored their use of cannabis and ensured that their consumption did not increase over time.

The drugs can get to the point where you actually find that you are using earlier and earlier during the day and that is when you have got to take stock of what you are doing and stop and have a good look at yourself.

Trevor (45) Family 10

Some cannabis users recognised the importance of having days when they didn't smoke cannabis as they were conscious of not becoming dependent on it. For many participants the difference between drug misuse and drug use was in the ability to be a responsible well-functioning member of society.

To me, the big word is use or dependence. You can be a user without being dependent on it. ... I don't know about others but I do believe that they need to have days where they don't have any. If I have been away on a fishing trip up north on holidays and I have had a smoke every day, by the time I get back to Perth I have had enough. I need some drying out time and I can't have [cannabis] while I am working. To me, it is purely a recreational thing which is for the weekends. Too much of anything is wrong but the ability to function and contribute to society and still have a small amount of anything is okay.

Craig (50) Family 9

It is something that I enjoy so it is not as if it is something that I do out of habit. It is something that I choose to do quite consciously. Yeah, I know when to stop. I think that is the critical thing. I know how to manage it, maintain your working life and your family life. Some people probably don't, and they don't know when to stop.

Trevor (45) Family 10

The children of cannabis users tended to hold similar values to their parents and also argued that they were able to manage their use of cannabis use in a way that minimised harm to themselves.

If I started getting too tired and grumpy for work or if I started feeling ill or if I found myself feeling emotionally different... I think I am in tune with my body enough to know when I have had enough or when it is affecting me and because I do have a lot of sober periods during the week I am able to think coherently and clearly and work out what I am doing wrong.

Molly (19) Family 13

There was a sense among the families participating in this research that cannabis could be used without impacting negatively on one's life providing that it was used with conscious awareness and through prioritising responsibilities, such as those associated with employment.

3.2.2 Polydrug use

Although participants recognised that cannabis use could be problematic in and of itself, they emphasised that serious problems were more likely to occur in the context of polydrug use.

I know from my father, he had alcohol problems; he had intravenous drug use problems and the least of his problems was the cannabis he smoked. Yeah he was a lovely guy when he had a bit of a smoke, he was hilarious, so funny, but when he got onto any of the other drugs, he was so sensitive that it really affected him and he was off his chop. He got into prescription drugs too. My dad actually still smokes pot and when he smokes pot he is fine but when he didn't smoke pot, he wasn't [fine] and when he took other drugs, he wasn't [fine] and I saw that and I learned that this is what happens. If he smokes pot he is fine.

Tess (34) Family 12

3.2.3 Excessive use

Participants noted that even without the contribution of alcohol and other illegal drugs, some people were at risk through smoking excessive quantities of cannabis. Mark (51) argued that consuming increased quantities of cannabis did not provide increased benefits.

All you needed to do was have one and that's it. You don't need to have any more. I have met people who seem to smoke an awful lot of dope; they do it religiously because "more is better" when in fact it is not! I mean people do have one cone and then another one and another one, and the people who I know who are like that have problems but they would probably have problems anyway because they are addictive type of people.

Mike (51) Family 4

I think the negative effects were so much more obvious when I was smoking heavily. ... With dope the effects might be a bit more subtle but they are still there and if you smoke heavily it does take a good time to get back to normal again.

Mark (32) Family 2

Participants in the current research generally disapproved of people who used cannabis excessively, such as throughout the day.

Some people smoke all day; I know people who used to wake up in the morning and start off [then] and it is like, "hmmm okay no!" [Disapproving tone of voice]. It is how deeply you are indulging in it as to how much of an impact it is having within the family

Linda (50) Family 1

3.2.4 Individual differences

Among participants there was a strong awareness of individual differences and cannabis users were aware that certain people should abstain. Aaron (49) recalled that "*Pot did not agree with [my ex] and made her paranoid. It is only for certain personalities. I know not everyone can take it.*" Mark and his wife had both used other illegal drugs in the past and had come to realise that abstinence was their only choice after they found it difficult to manage their cannabis use in a responsible way.

Abstinence is important for some people I think, but it depends on the person. ... But I know that if I have a cone now it would affect my life negatively. After doing rehab, I learned that it is too easy for me to get addicted to other substances as well. ... Just like a lot of people can drink and they are not all alcoholics but there is a minority of the population who just can't manage it.

Mark (32) Family 2

Abstinence is our only choice, for us. ... Every person is different and when it comes to cannabis, I have to say there are people who are well functioning members of society who can smoke cannabis occasionally, just like some people can use alcohol.

Tina (36) Family 2

Young people were also aware that there were variations in cannabis potency and that cannabis affected people differently.

I have seen a lot of different people react a lot different, and it also depends on what type of weed you smoke. Everyone that I know has a different reaction to weed. Some people fall asleep, some people get angry, some of my friends get really hyper but because mum smokes bushie she probably just gets very mellow and calm from it.

Heather (20) Family 1

3.2.5 Cannabis dependency

Some participants acknowledged that it was important not to run out of cannabis, so ensuring a regular cannabis supply was something that was incorporated into their day-to-day planning. Lynette (37) said, *"I have really got it in my life in part of a routine of my life. I make sure that I have always got it or have got the money for it."* Phillip was a long-term cannabis user and although he liked to ensure that he had an ongoing supply of cannabis he argued that it was no problem to go without.

I'm usually looking a long time before I run out though. [Laughs] I'll be thinking "shit I have only got three weeks [supply of cannabis] left, let's find out what's happening." I usually always have some but if I am really close to running out and say there is a big concert on the weekend, it's no trouble to go without it for 2 or 3 days, so as you have got enough for the weekend concert. I can do that without any trouble at all and as soon as you go away on holidays. Like if you go to Asia or whatever it is just like "no problems." I don't even virtually miss it. Not much at all.

Phillip (46) Family 8

Phillip's current partner had been very disapproving of cannabis use prior to meeting Phillip; however, she did not consider Phillip to be dependent on cannabis and saw very little evidence of cannabis withdrawal when they travelled overseas.

He has always been a user. But he is not reliant on it; he is not dependent on it in any way. I know Philip certainly doesn't have a problem without it. I mean we will go travelling and he won't smoke for 2 weeks and then he will come home and he will have some. He might get a bit edgy. But it runs in my family anyway, we all get a bit edgy. So I see no evidence in him at all of any level of dependence.

Kelly (44) Family 8

Phillip's daughter, Rowena disagreed.

To my knowledge, he is always on it. If I think back to times when [dad] hasn't had it available then he tends to be a horrible grumpy pain in the butt. He just can't tolerate anything. He turns extremely snappy when he is not on it. It is my opinion that he is without a doubt addicted to it and I just think that is sad for him. Especially, when you do see such a different side if he is not on it.

Rowena (21) Family 8

Some participants were more willing to recognise that they were dependent on cannabis.

Pot got past me because pot was seen as the soft drug. It was seen as something you couldn't physically get ill on, unless it was long term and cancer. ... I have always known I had a problem with addiction. I remember being 17 and I couldn't find hash one day and went 'ooh, girl!' because I went round to about 7 houses. Sometimes I would meet somebody who I really did like and admire and I was ashamed that I was an addict. I don't know if I thought I was an addict, no I have always known, even if I was in denial. I have always known [my cannabis use] was way out of whack.

Renee (47) Family 13

Even though Madalyn was only using cannabis at night time to help her get to sleep, she realised that she was dependent on it.

I don't like the fact that I have to use this at night to go to sleep and that if I can't have it then I am up all night and I become sleep deprived. So that was enough of a distinction for me. When I couldn't get hold of any I would be up all night bouncing off the walls because I couldn't sleep. I would be up until 4 or 5 in the morning, just going, "oh my god I can't turn my head off." I would go 3 days without sleep sometimes just because I couldn't get any smoke and with the agitation, rather than just being able to let it go, which is where you start to realise, "oh shit, I really am dependent on this." ... It bothered me that I had to do this to cope with life. To me, that is the definition of addiction. I am addicted to coffee; I am addicted to cigarettes and, for me, it all falls into the same category.

Madalyn (34) Family 11

Tess had grown up with a mother who used cannabis and Tess also considered herself to be dependent on cannabis.

I want to stop smoking. I do want to stop because I am scared. It is a consistent thing I have had in my life for so many years. ... I have been trying to work out why I can't [stop], why I haven't done it. I would call it a crutch. I have not walked in my entire adult years without it. I will be honest about it because maybe it will give me the strength to stop doing it because I hate it. I don't hate it; I just hate the fact that I keep wrecking my life. I feel ashamed a bit because I feel like for nearly 20 years now I have had an addiction. This is something that I have done every single day and that makes me feel no good really.

Tess (34) Family 12

3.2.6 Quantifying use

Family members' accounts of the quantity of cannabis used by the nominated parent tended to be consistent with the nominated cannabis user's self-reports. Mike's cannabis use was quite typical in that he smoked a small amount of cannabis most evenings.

I don't smoke that much, the amount I smoke is very small. I would probably have a joint once a day when I get home from work. Most days I have two, one when I get home and one later on at night.

Mike (51) Family 4

Mike's son, Alec (20), confirmed that the amount of cannabis his father consumed was minimal. "He doesn't have a massive session or anything. He usually just has a few tokes of a joint." His daughter agreed.

He doesn't smoke a lot. He just has a joint or two, so I don't think it affects him a lot. He doesn't get really, really stoned or anything. He just does it at night as a relaxation thing but I don't think that he gets really, really stoned.

Lindsay (18) Family 4

Phillip was on a high income and had access to a ready supply of cannabis that was purchased in bulk (i.e., by the ounce at a cost of approximately \$300). Although he smoked cannabis on a daily basis he reported that he was only spending approximately \$50 per week

I do have a smoke every day. I usually have a smoke after I come home from work in the evening and I always have had. When my son doesn't pinch some, I think an ounce lasts me between 6 and 8 weeks.

Phillip (46) Family 8

Phillip's partner confirmed that his cannabis use was predominantly limited to evenings.

Philip smokes every day. Not during the day usually, unless it's the weekend, but certainly at night. He will have at least 2 or 3 cones in a night and if we are going out at night he will carry a pipe with him.

Kelly (44) Family 8

Phillip's 20-year-old son, Liam, also used cannabis on a daily basis but had observed that his father used cannabis in a more moderate way than Liam did.

[Dad] doesn't smoke anywhere near as much as me. Because all the time when I go up there, he will pack one or two and if I pack another one he will go on at me about, "hey, you don't need more than bloody two." Yeah, he is really only a two-cone man and he will sit down for a couple of hours and then go back up for another one later on.

Liam (20) Family 8

Renee noted that her cannabis use had gone down and that she no longer smoked it throughout the day. Even though she was smoking a lot of cannabis, Renee was smoking a very weak strain consisting of leaves rather than flowering tips.

It is much less so than it used to be. At one time I would get up in the morning, have a joint, go on with the day, have a joint at midday, and have a joint at tea time. Then it got really, really bad so that I was smoking them like I was chain smoking cigarettes, but it was always bad leaf because we used to grow it. And now I do tend to have a joint when the kids have gone to school and depending on what I am doing, I might not have any [more] until the evening but practically most evenings I will.

Renee (47) Family 13

Others described how they would smoke half a joint and save the rest for later on.

What I do is, say I have a joint now, instead of smoking it all, I will just have half and then I'll come back and have the other half later on. So I might have actually cut myself down to two joints now.
Sally (56) Family 12

I will tend to have half a joint and it gets me into that zone that I am looking for, and then later on in the evening when that starts to wear down and it is by then that time of the evening where everyone is relaxed and the kids have gone off to bed, I will sneak out and finish it off. It has probably only been over the last 4 or 5 years that I have managed to do it that way.
Trevor (45) Family 10

Although most of the nominated cannabis users in the current study smoked cannabis on a daily or near daily basis, the quantity consumed was claimed to be minimal. Nonetheless, there was wide variation in use and Lynette (37) admitted that she used up to an ounce (\$300) of cannabis per week.

On the weekend I would smoke during the day, pretty much as soon as I get up. The same with the Monday [her day off]. I have 4 free days. Oh well, it could be worse. I probably smoke a bag a day. I would probably smoke a whole bag, yeah, those little ones [\$25 bags]. Two or three hundred bucks a week.
Lynette (37) Family 7

3.2.7 Inconsistencies

In most cases family members' reports and the nominated cannabis user's reports about their use of cannabis were consistent. However, this was not always the case.

I smoke probably 4 days a week. Maybe 2 or 3 times during the evening I will go and have a pipe. Weekends I definitely do, when I don't have Jeff. Usually a couple of afternoons per week I will come home from work and have a pipe or two to help with my neck injury.
Aaron (49) Family 5

Aaron's ex-wife claimed that he was using much more cannabis than what he had disclosed. Either Aaron had under-reported his level of cannabis use or he had reduced considerably since telling his wife that he was using every morning before work. As they no longer lived together it was possible that she was unaware of his current pattern of cannabis consumption.

He wakes up at 4.30 in the morning and has a smoke before he goes to get the paper and then he comes back and has another smoke and then he goes to work and he doesn't smoke all day, and then he comes home from work and has a big smoke, and two cruisers. I know that because he has told me that. And Panadeine forte all through the day. That is what I know he does.
Colette (36) Family 5

Despite Aaron stating that he did not hide his cannabis use from their son, Jeff reported that he didn't think his father smoked cannabis very often. This would suggest that Aaron's cannabis use was not prominent in the eyes of his son.

Usually when my dad smokes marijuana he doesn't smoke very often because I think it is green or something and usually when he smokes I see a deep dark brown stuff [tobacco]

that you buy from the shops. My dad doesn't drink often, he only drinks a little bit and I don't know how often he smokes though.

Jeff (12) Family 5

3.2.8 Perceptions of control

Linda, like other parents in the current study, argued that her cannabis use was controlled.

Even when the kids were younger, I wouldn't smoke during the day. I'd wait until they were all home and I'd finished all my cooking and organised them. I might even smoke after they'd gone to bed. The kids have never seen me drunk, for instance. It's controlled, it's always been controlled.

Linda (50) Family 1

Although Linda's partner was not a cannabis user he agreed that Linda had her cannabis use under control. Linda said that her use of cannabis had reduced over time and suggested that this was a deliberate choice as she found using cannabis incompatible with meditation, which she had taken up. Her partner agreed that Linda's use had gone down over time but he thought that it had more to do with cannabis being less available rather than any conscious decision to cut back.

It is a personal thing that Linda herself has some control over. I suppose that Linda did probably smoke a little bit more early on in our relationship but then, more than anything else, I think people that might have it available or whatever either moved away, or for whatever reason, are not around. So I would call that a bit of a thinning out of more regular access to it than may have been the case early on in the first 5 or 6 years of our relationship.

Paul (54) Family 1

Paul said that even when Linda was young and was using heroin, she claimed to have it under control, however, he was not sure that this was in fact the case.

Linda has always maintained that she always knew how far to go, things like that. I don't know whether in reality that is a delusion or not. All I can say is that given the fact that she has completely managed to extract herself from that, and the fact that she is still here, it would appear that she was at least partially correct in it. But whether she actually really knew or whether she was just lucky to have managed to, the chips fell in her favour, I don't know. Probably a combination of both I would say.

Paul (54) Family 1

Linda's 20-year-old daughter was consuming a cocktail of illegal drugs each weekend but she too believed that she had her drug use well under control.

As far as other drugs go I don't do them during the week and in my head that makes it okay. It is okay to do those as long as it is in a party environment, when everyone else is doing them and it doesn't turn into doing them by yourself at home. I think that is where it turns, when you find that you need it to function in everyday life whereas I have never needed drugs to function. You always think, well maybe I'll just have a little more and then I won't feel bad but I know that for me to function for the rest of that week I have to spend that day or two just getting [off the drugs]. Yeah, and people don't want to do that.

Heather (20) Family 1

Despite strong belief in her own ability to manage recreational use of drugs, Heather was not convinced that her father's drug use was under control despite his ability to hold down a job and maintain a long-term relationship.

Dad seems to think that his [own] drug use is okay because he can control things, he still goes to work, he still holds down a job and a relationship, so dad still thinks that he keeps everything under control even though he does drugs during the week and smokes a lot of rock but I don't know...
Heather (20) Family 1

People tended to have more faith in their ability to manage their own drug use than they did about other people's ability to do the same. When I interviewed Mark he informed me that despite using heavily in the past he now had his cannabis use well under control.

It used to be a problem when I was smoking heavily. Now, well it is definitely under control. [You don't worry that having a couple of cones most nights is going to escalate?] It did start there for a little while, and I just nipped it in the butt and stopped for a little while. I just no longer take it lightly.
Mark (32) Family 2

Shortly after interviewing Mark and before I had the chance to interview other family members, he was admitted to a residential treatment program. During a second interview, after he had completed the program, he described how his use of alcohol and cannabis had spiralled out of control quite quickly.

It got out of control. I got back on the booze and started smoking heaps of pot. Yeah. I had a few drinks when I should have gone to bed. I have learned a lot with meeting people who stop for a while and then pick it up and you get [straight] back on the fast track. You think that you can pick up where you left off but it is not like that. It did take a few months but yeah, it was pretty bloody quick.
Mark (32) Family 2

Mark stated that when I had interviewed him initially he had been confident that he could manage his use of cannabis in a responsible way. He described this as "the myth of controllability."

I believed it at the time but from past experience I have believed it at other times too [the myth of controllability] and then over time I have seen it fall apart. It is easy to kid yourself but if I started smoking and drinking now, within 6 months down the track I would be a mess. When I look back it has just happened so many times in my life, that it is a bit foolish to deny it.
Mark (32) Family 2

Mark's wife informed me that when I first interviewed him they were both "heavy into marijuana use." Although Mark had informed me that their cannabis use was minimal, Tina stated that, "He was in denial!" and said that, rather than having their drug use under control, "it was more an illusion of control."

3.3 Dosage control

This sub-theme was about titration of the cannabis dosage and incorporated four minor themes: 1) Level of intoxication; 2) Potency; 3) Method of delivery; and 4) Mixing it with AOD.

3.3.1 *Level of intoxication*

Although nominated cannabis users had been using cannabis regularly for decades, with some using daily, they emphasised that they did not seek an intense state of intoxication but rather aimed to reach a more minimal or moderate level of intoxication. Family members confirmed that this was the case. Paul (54) described his partner as using “*very mildly*” and Lindsay said that her father “*doesn’t get really, really stoned*”.

We have measured out what I put into a joint and it is less than a bong’s worth, less than a cone. People look at me and go “why do you even bother?” I didn’t want the good stuff because I couldn’t function on it”.
Renee (47) Family 13

Therefore, nominated cannabis users in this study used cannabis regularly but not necessarily excessively. The harm reduction strategy they have used was to ***limit the quantity of cannabis used on any one occasion.***

3.3.2 *Potency*

Participants were aware that cannabis potency varied considerably. Colette (36) noted that “*the strength of the mull is always different*”. Many of the nominated cannabis users stated a preference for smoking outdoor strains of cannabis (bush weed) over the more readily available hydroponic strains because they preferred the less potent variety. Paul was not a cannabis user but noted that his wife “*doesn’t use really strong stuff.*” Linda explained that:

I prefer to smoke bush if it is available. I smoked some hydro recently and I got in the car and got on the freeway and it absolutely freaked me out. It was a particularly strong smoke. I mean there are so many different degrees of smoke. I don’t like to be that stoned that I can’t operate, that is just horrible.
Linda (50) Family 1

Craig (50) said that if they bought some “*strong stuff*” they would mix it with “*some leaves*” off their home grown plant to make it less potent.

We have grown a few of our own [plants], and I am just as happy with leaf. I am not really out for the really strong stuff; I don’t like that. I like it just how it comes off the plant and not really concentrated. We like to have the feeling but without [becoming] totally incompetent.
Craig (50) Family 9

This harm reduction strategy might be construed as: ***use less potent varieties of cannabis, such as outdoor strains.***

3.3.3 Method of delivery

Participants who did not smoke cigarettes were more likely to use a bong as a joint was considered wasteful if it was not thinned with tobacco or passed around and shared. Some people argued that it was better to use a bong as the smoke was cooled before it entered the lungs and some of the toxins were filtered out into the water chamber.

I use a dual chamber bong; it means it is filtered twice through water before you smoke it rather than once. So it cools it down and makes it a little less toxic. If you have ever cleaned a [smoking] instrument that you used more than once or twice to smoke the stuff, well you don't have to be a Rhode's scholar to work out that it obviously isn't doing you any good. A better way of taking it would be a Godsend, I think, personally.

Phillip (46) Family 8

One participant argued that using a bong made it too easy, thereby contributing to increased cannabis consumption.

I use a gravity bong in the laundry at the moment. It's sort of like a bucket [bong] It is such a fiddly, pain in the arse way of smoking it that sometimes I can't even be bothered. I don't use bongs; it tends to encourage a bit more smoking, makes it a bit easier

Mark (32) Family 2

Some of the older cannabis users were worried about the younger generation's use of 'bucket bongs,' a method of cannabis consumption that tends to contain the cannabis smoke so that little is wasted and pushes the smoke into the lungs more forcefully.

The worst thing is that kids nowadays smoke buckets and that is a killer because that is a lot of fluid that you are inhaling as well. I had a bucket once and it frightened the hell out of me.

Sally (56) Family 12

Smoking buckets tends to produce rapid and intense intoxication (Delahunty & Putt, 2006), therefore, it is a method of cannabis administration that is intentionally sought, particularly by younger cannabis users.

A few weeks ago it was a bucket. Because it is very effective, you get the most concentration from it. It is the opposite end to just a joint, joints are very laid back and there is so much wastage, I mean it is burning and so much goes away into the air, whereas in a bucket it is all concentrated in there. It is fairly intense.

Alec (20) Family 4

3.3.4 Ingesting it

Although cannabis users enjoyed the effects of cannabis they expressed concerns about smoking it. Some participants said that from time-to-time they ingested cannabis in the form of baked goods rather than smoking it.

Obviously I have eaten it; we would muck around over the years and cook up things. Sometimes if we are going out we might have it in a cookie. The thing that worries me

the most is the actual habit of smoking it not the effect it has on me. So, I try to reduce the amount of smoking that I do.

Craig (50) Family 9

If I am not going out I can just eat it and the reason I don't eat it when I am going out is because you never quite know the strength of what you are using and [sometimes] I just want to lie down and go to sleep. ... I prefer eating it especially because when I do smoke a cone, afterward I will cough and I just have trouble dealing with that.

Kelly (44) Family 8

There were drawbacks to this form of consumption as onset of the effects would be slower and, as Kelly stated above, the strength of the product would not really be known until it was consumed. Furthermore, there was the risk of family members mistaking the baked cannabis items for general foodstuffs and consuming it by mistake.

We have friends who cook muffins and cakes. We have one particular set of friends and they cook quite a lot and it just ends up in our freezer. But I actually don't like putting it in there because my daughter could end up taking a cake out for school or something.

Kelly (44) Family 8

3.3.4 Mixing it with AOD

Many participants discussed the pros and cons of mixing tobacco with the cannabis in their joints. Some argued that this reduced the amount of cannabis that they were consuming.

Over the years I have become a little leaner with my smoking and smoking technique. Having tobacco in the mix, and then having half a joint now and half later on, so if you can drag it out and you can make it last; some people probably end up sucking the whole thing down and they don't need to.

Trevor (45) Family 10

A few participants were concerned that using cannabis and tobacco (nicotine) simultaneously led to increased cannabis and tobacco use.

I have stopped splitting the weed with tobacco and that made a difference. Otherwise you are getting the cravings for weed and for tobacco. Actually, nicotine's a lot more physically addictive, so I stopped mixing it

Mark (32) Family 2

3.4 Lifestyle factors

This sub-theme was about the idea that lifestyle choices play a large role in determining the likelihood that a person will experience problems associated with their drug use. This sub-theme encompassed data about participants' drug-seeking behaviours and the implications of purchasing cannabis, which as an illegal drug thereby involves individuals in an activity that has criminal implications. This sub-theme included three minor themes: 1) Drug-using lifestyle; 2) Drug-seeking behaviour; and 3) Drug deals and criminality.

3.4.1 Drug using lifestyle

When she was a young woman and before she had children, Linda had immersed herself in a drug culture in which she used heroin and other illegal drugs on a daily basis. She felt strongly that such a lifestyle was generally unsafe and particularly unsuitable for children.

It is a lifestyle, and when you're gobbled up in that, it does become part of your life and things do happen and things do go out of control. [When I lived in London] that was a different time, a different lifestyle. There were criminals coming out of the woodwork. ... Yeah, there are too many dramas on the other side. It's unpredictable. It's not safe. It's not a good place for children to be. You have to protect them from [that] lifestyle. No, it's too dangerous for kids. It is. We didn't have kids then and you were basically responsible for yourself.

Linda (50) Family 1

Linda's partner noted that her current lifestyle was completely different to that described above and had little potential to become problematic. However, he was concerned that Linda's children were developing a lifestyle that centred on illegal drug use.

A lot depends on the circumstances under which they are indulging, Linda indulges under circumstances that have a very, very low potential to spiral into some sort of insidious or nasty situation either at one time or over time, whereas I don't think the same thing applies for Heather or Chris [Linda's children]. I think they are caught in a lifestyle that ... doesn't lend itself to even recognising the notion of moderation or ease up. It is like, 'well, we started today, so we will just keep going and going with whatever is available until we grind to a halt and then when we wander out of that one, we will just gradually slide into the next one and that is what we will do.' I think that is just a different kettle of fish altogether. The start of it as an issue for me was not just the fact of use of it but the insidious development of a lifestyle that was got underway and the complete dismissal of any encouragement to go in a different way when you had the chance. It is kind of 'well, let's have it develop as an actual problem that we have got to deal with'.

Paul (54) Family 1

Heather said that she knew a lot of young people who used cannabis and other illegal drugs quite heavily and noted that such individuals tended not to have studies or jobs to occupy themselves during the day.

Cannabis use is something that you grow out of. It has to fit into your lifestyle. A lot of people I know just do it because what else are they going to do during the day? They have nothing else to do so they smoke weed.

Heather (20) Family 1

Lynette had found this to be true for herself. Despite smoking an ounce of cannabis per week, Lynette was working part-time as an enrolled nurse and was studying nursing at university level. She argued that she would be smoking even more if she was a stay-at-home mum.

[My husband] says, "Don't go to work. You don't need to go to work!" But I need to go to work for me. He talked me into chucking in my job and 2 weeks later I thought, "What

the hell. I am bored. I am going to kill somebody!" I was smoking like the chimney, so I need to keep myself busy to stop that.
Lynette (37) Family 7

Anthony argued that some people were going to develop an irresponsible lifestyle that prioritised their cannabis use but that making other lifestyle choices that were healthy, such as exercising and getting out of the house, could minimise any potential for harm.

It does some harm but it depends on how you use it. It is up to you. Like if you get up every morning and the first thing you do is pull cones and you don't eat breakfast and then you sit in your chair all day watching telly, pulling cones, or playing on the computer, and then you are smoking cones in the night and you don't do any exercise, then it is not really the dope that is hurting you, it is your lack of effort. If you still put in effort and exercise and get out and do stuff, well you are minimising the physical harm it can do ... So you have got to be responsible and aware of that sort of stuff. I see a lot of people, especially around here, that take a lot of drugs and smoke a lot of drugs and think it's a good thing but in 10 years' time they will probably still be living in the same flat, still with dirty dishes in the sink, and still smoking cones. I think if you make anything a priority like that, it's not healthy for you.
Anthony (36) Family 3

3.4.2 Drug-seeking behaviour

Participants in the current study used cannabis but were not otherwise part of a drug-using subculture; their lives revolved around family and work rather than their cannabis use. Many participants had grown their own cannabis from time to time but most still had to purchase it on a regular basis. The option of growing plants in the backyard was limited to those who had adult children and properties that allowed them a discreet site.

It is tough to get hold off. I used to grow it. I have grown it a lot in the past. But that was becoming a problem because of the kids.
Mike (51) Family 4

As well as risks associated with growing it, they were very conscious of the risks that purchasing cannabis involved. Older participants tended to have arrangements of a long-standing nature with people they trusted.

We only buy it off people that I know have it. I just have friends that have it. You don't go to strangers for that, no, that is one way to get into trouble. You have got the group and that is the group and it is very tight knit.
Carol (50) Family 6

That is one of the worst things about it; you feel like a criminal when you have got to go and buy some. We would rather just go to places and people that we know well. That is where we get it from and if we can't get it from them we just go without. I certainly wouldn't go and buy it off a stranger or anything like that. I am still a businessman and I don't want to be labelled as drug dependent. Therefore, I wouldn't just buy it off anyone. It is mostly through our own friends from associations of long ago. Since we moved out here we can grow our own so it is not an issue any more. There are people at work I could ask but I would rather not. I would rather go without than have to get to the point where I would ask one of them.
Craig (50) Family 9

Tina and her husband had completely ceased using cannabis. They noted that many of the people they used to associate with were preoccupied with obtaining and using cannabis and other drugs. Tina was happy to no longer be a part of this lifestyle.

[it helps] not being around people who smoke because they are focusing on it so much and everyone is always worried about where they are going to get their next lot from or money. People that do it full time do that, which is the people that I was hanging with; I could see that it affected their life. It affected their daily life and some people had children so it affected their children's life and I can't do that anymore. We used to struggle with where we were getting it. Quite frankly I am about my kids now, I am not about using drugs or trying to score drugs and that's what the pot was bad for because you spend so much time preoccupied with trying to get the drug, getting away from the kids to smoke the drug.

Tina (36) Family 2

3.4.3 Drug deals and criminality

With the exception of their cannabis use most participants were otherwise law-abiding citizens. At times participants had obtained cannabis and sold some of it to their friends so as to share the costs. Such a practice essentially constitutes drug dealing. Anthony (36) worked in rural NSW where he sometimes got paid in cannabis. *"A couple of ounces for the week. Beautiful. I'd flog a bit to my mates and have my own bit as well."* Mark had a large family and they were on a low income. He confessed that he had tried selling cannabis for a short period of time.

I don't know how dope dealers do it actually. Phone calls all the time, constantly asking if you've got any weed. I briefly tried it once and I hated it. The money is not worth the drag of it all. I would have all these idiots calling me up all the time.

Mark (32) Family 2

Tina had grown up with drug use; her stepfather gave her drugs, including cannabis, when he sexually abused her as a child. Tina described her stepfather as a drug user and a drug dealer; as a child she had to help with sorting and packing cannabis for sale.

He is a heroin user and cannabis dealer. I used to have to bag it. We used to have to put it in pillowslips. The pillow slips would have the stuff in it with seeds, and you had to bang it on the wall until the seeds fell out, and then you would separate it. I would roll about 100 joints a week that [my stepfather] used to smoke; there was truckloads of it

Tina (36) Family 2

3.5 Long-term cannabis use

This sub-theme was about the nominated cannabis user's capacity to exercise control over his or her use of cannabis over the long-term and whether it has reached a level in the past that was problematic for the user or other family members. Within this sub-theme there were three minor themes: 1) Use across time; 2) Tolerance; and 3) An exit drug.

3.5.1 Use across time

Most participants reported that their cannabis use had remained quite steady over the long term and in many cases they claimed that their cannabis use had reduced due to it being less available amongst older cohorts. For example, Linda (50), noted that her cannabis use had “probably gone down over time.” Her partner agreed that she “probably smoked a little bit more early on in our relationship.” Linda’s 20-year-old daughter was “sure [that] when [mum] was younger she smoked a lot more weed. Most of the nominated cannabis users had been using cannabis throughout their adult lives. Craig (50) said, “If I thought there was something really wrong with it, I would be the first to quit. I have lived with it for 34 years and I am as healthy a person in society as you could get.” Tina was introduced to cannabis by an abusive step-parent when she was a child. She had thought that she would always be a cannabis smoker but had eventually stopped using it altogether. At some stage she found that she no longer enjoyed the effects of cannabis.

I started when I was 9 and I am 37 this year. I stopped using cannabis when I was 35. As I got older, it changed. Before it used to mellow me out or chill me out, help me to relax and ... I never thought I would want to stop and then all of a sudden I started to get paranoid and as everything else [other drug use] dropped out from my life and my life started to come together, I just didn’t need to smoke anymore. Tina (36) Family 2

Anthony (36) had moved to Perth from another state where he had previously been deeply immersed in a lifestyle that revolved primarily around cannabis use.

When you are young and fit you can get away with a little bit for a while, but the older you get, the less appeal you have to that sort of thing. I just felt it was time for a change anyway. I had done that for probably 12 years, lived like that. I stopped for about 3 or 4 months where I didn’t smoke anything at all but I had to leave [there] to do it.

Anthony (36) Family 2

Carol also acknowledged that her cannabis use became excessive for a couple of years.

I went through a patch of smoking a lot when things started to go bad in the marriage. At one stage there, for a couple of years it got that bad that I would get up in the morning and I would have a smoke and I would continue all day until I went to bed. I would just continuously be having cones. ... I have gotten older and wiser.

Carol (50) Family 6

Carol’s daughters recalled being aware that their parents frequently smoked cannabis in the childhood home. Rachael (22) thought it occurred “Daily. Yeah. Well it was pretty regularly, I don’t really remember. Lots of their friends had young families too, so it was probably more of a weekend thing than an everyday thing. Her sister Lisa (25) agreed that their mother was smoking less cannabis now than when they were children, informing me that “they did it so often during

the day. It was fairly constant use. I can see now that she doesn't smoke it as often. Well, I don't think she is having as much as she used to anyway."

3.5.2 Tolerance

Those that had been smoking cannabis regularly reported that they had a tolerance to it, such that the effects were not experienced as intensely as they might be if the user was a novice.

When I was younger I used to get the giggles and stuff like that but now if I smoke, I can still function as a human being. I can still cook dinner and do whatever. Especially when I have been smoking for a while, I find it doesn't really do anything. Sometimes I will have a joint and then I will think, "Did I just have one?"
Anthony (36) Family 3

Lynette used cannabis heavily and argued that because she was used to it and had developed a tolerance, that she was able to function effectively at work, where she was an enrolled nurse.

Lots of people say how can you smoke and study? Well I reckon it works for me. And you can write and write and write, too. Yeah, but I think you have to really know yourself. Definitely. That comes with age. I wouldn't have been able to do what I am doing 5 years ago now. I have gone to work [as an enrolled nurse] stoned and it didn't make much difference because I am stoned lots of the time anyway. ... I don't feel like I am out of control or anything like that. Like when you get drunk, like I don't feel anything like that. I just feel relaxed. I don't feel any different except for relaxed.

Lynette (37) Family 7

Even younger cannabis users reported having developed a tolerance to cannabis.

The feeling that I used to get when I was younger, I don't get any more but there is still something there that keeps making me have it but it is definitely not [like it used to be]. I don't even suffer from the munchies or anything. I don't really get uncontrollable laughter. ... I am not like some of these people with their first time [whereby] it gives you a sense of euphoria or something.
Liam (20) Family 8

Liam explained that the effects of using cannabis were much stronger if he had not used for some period of time. He reported that after a break of 6 months, when he resumed cannabis use, his tolerance had reduced, hence, the effects were greater.

You definitely get a better buzz after going without for a couple of days. I didn't have any for 6 months. You definitely adjust to it. I remember how it was after 3 weeks of smoking solid dope after nothing for 6 months.
Liam (20) Family 8

Mike also found that having a break meant that when he used cannabis again it would have a stronger effect.

Your body gets used to it and so three cones doesn't do anything and so you have to have more and more. I think when you can't get it, it is quite good. It gives you a bit of a break. And then you get much more benefit from it, you can feel it, then you get a buzz again.
Mike (51) Family 4

Sally was not employed full-time outside of the home and despite using cannabis every night, she argued that there was no point in using cannabis during the day as she knew that the overall effects would be lessened.

I am quite happy to wait until the evening. I like to be straight because otherwise what is the use of getting stoned? I like that first feeling I get from it. Sally (56) Family 12

Thus, cannabis users were aware of the development of tolerance and some used this to their own advantage.

3.5.3 Exit drug

Although at the time they were interviewed nominated cannabis users in the present study were only using cannabis, many of them had drug use histories and had used AOD in the past, typically when they were much younger. Linda had been immersed in a drug subculture and had used heroin when she was younger.

We had lots of hash around and lots of other drugs and we used to smoke all day. ... Back at that time I also had a [heroin] habit, and so I was probably trying to keep that more under control. Yeah, that was out of control. Cannabis and cocaine were the secondary drugs really at that time ... there was basically whatever you wanted. Most of the people that we all knew [were] dealing at the time, so it was in the house, it was there.

Linda (50) Family 1

Mark acknowledged having misused alcohol and other types of illegal drugs in the past.

I have been pretty much off the grog for 18 months now. I used to take Valium and stuff. I used to be a bit of a junkie, I did heaps of speed. Yeah but I gave that the flick a long time ago. I had [heroin] a couple of times but I was never what you would call a user. It was at the same time when I was doing speed. I popped a few [ecstasy tablets] maybe 10 years ago. Until I stopped drinking, I have always been using something. Now, the last 18 months is my first time of it just being weed. It's always been weed and something else before that. It's just the knowledge of that crutch being there if I need it but 9 times out of 10, I don't need it anyway. I just have it because it's there.

Mark (32) Family 2

Mark's wife also had a history of problem drug use; for her, cannabis and cigarettes had been the last to go.

I gave up smoking cigarettes a few months ago. I do have a glass of wine with dinner but if I have two glasses of wine, I am drunk. When I took drugs I took amphetamines, I took speed. [I last used it] a year and a half ago. I have been off the Dexies for 2 ½, 3 years now. [Heroin?] About 6 months ago. That was the last time I used. [Cannabis was the last drug to go?] Yeah. I have been smoking it forever. Maybe it is because I finished with all the other stuff.

Tina (36) Family 2

3.6 Quitting or reducing

This sub-theme was about participants' experiences of quitting or reducing their use of cannabis; six minor themes were identified: 1) Withdrawal; 2) Treatment; 3) Coping strategies; 4) Changing social circles; 5) Never want to quit; and 6) Reasons.

3.6.1 *Withdrawal*

Cannabis users reported varying levels of withdrawal symptoms when ceasing or taking a break from using cannabis. Trevor believed that, similar to other drugs, there was a mood change associated with coming down off cannabis and he thought individuals were likely to be quicker to lose their temper when they were coming down.

I think there is a little threshold there where you do sort of have a mood change, a mood swing, it is like a cigarette smoker, that is when they need their next cigarette and I think cannabis has that same affect. ... Sometimes I have noticed that there is a little window when you are coming down and your mood starts to change a little bit and if something happens during that little window, well you can actually be put to the test, I have noticed.

Trevor (45) Family 10

Mark argued that the only problem was dealing with cravings and beating the boredom.

I even quit weed there for a few months. There were no dramas stopping after a few days and I thought "this is good." You just get cravings, that's all. The acute cravings, for me, only last 2 or 3 days. Then it was more just a case of, like when you come off any drug, just beating the boredom, keeping yourself busy

Mark (32) Family 2

Tess was the daughter of a cannabis user and she was the mother of a toddler. She had been using cannabis her entire adult life and informed me that she experienced a high level of anxiety associated with thoughts that she will run out of cannabis.

I stress myself out if I can't get any. Oh, not a nice situation at all! I am on edge; I am just a mess basically because I haven't made a choice. It has been put on me and I am looking everywhere and I can't lift myself up and I keep thinking about it. That is horrible. I have trouble thinking about anything else, so I don't like that place at all. No, no, no. I don't like to run out, no, and if I think about running out, I tend to smoke a lot more. I am stressing about it and obsessing about it and I will send myself into that place. Yeah.

Tess (34) Family 12

Although Tess was willing to admit that she was addicted to cannabis and experienced psychological symptoms when she considered running out of cannabis, many of the participants claimed that it didn't bother them at all. However, partners and children often commented that cannabis users were more likely to be irritable and less tolerant of others when they were not using cannabis. Although he rarely went without cannabis Phillip claimed that it was no trouble to do so and cited overseas holidays as proof that this was the case.

I usually always have some, but if I am really close to running out and say there is a big concert on the weekend, it's no trouble to go without it for 2 or 3 days, so as you have got enough for the weekend concert. I can do that without any trouble at all and as soon as you go away on holidays. Like if you go to Asia or whatever it is just like "no problems." [Don't even virtually miss it. Not much at all.] Phillip (46) Family 8

Phillip's partner agreed that he didn't seem to have any problems, apart from being slightly on edge, when he couldn't use cannabis for a period of time, such as being overseas.

I know Philip certainly doesn't have a problem without it. I mean we will go travelling and he won't smoke for 2 weeks. He might get a bit edgy. ... Certainly there is no withdrawal or anything like that. I mean we travelled all around Europe without it. Well, we used in Amsterdam, which was nice. But yeah, there was no effect and he doesn't crave it. Kelly (44) Family 8

Phillip's daughter, who lived with her mother (Phillip's ex-wife) disagreed, arguing that her father was irritable, aggressive, and volatile when he went without cannabis.

If I think back to times when [dad] hasn't had it available then he tends to be a horrible grumpy pain in the butt. He just can't tolerate anything. Whereas if he is on it, he is lovely and he is carefree, and nothing bothers him but a few times if we have been on holidays or something like that and maybe he hasn't been able to touch it, he turns into a real grumpy bastard. I have noticed that, without a doubt! He turns extremely snappy when he is not on it. Not that he is ever off it very often. Rowena (21) Family 8

Liam, Phillip's son, said he had also observed his father to be "cranky" when he was without cannabis and believed that this was a consequence of his father having been using cannabis for decades.

When I can't get any, it doesn't bother me, no, not ever. ... The old man gets a bit cranky when he doesn't have any stuff. Oh, yeah! He has been doing it for a long time so... Liam (20) Family 8

3.6.2 Treatment

Although many of the 13 nominated cannabis users had experienced times when their cannabis use had become excessive, the sample was not recruited from a treatment service and none of the nominated parents had been in treatment for their cannabis use when they were recruited for the current research. However, shortly after being interviewed and before I had interviewed other family members, Mark (32), admitted himself to a residential treatment program. Mark completed the program and when last interviewed had been abstinent from cannabis for approximately a year. Mark explained that his use of cannabis and alcohol had nearly cost him his family.

It got out of control. I got back on the booze and just started smoking heaps of pot I would spend about \$50 each night and come home wasted. We ended up having

domestic violence. I ended up hitting Tina, so she did the right thing, took the kids and got out. ... I have since learned looking back that I was pretty much a dry drunk but I hadn't really dealt with any of my shit. I know that if I have a cone now it would affect my life negatively. After doing rehab, I learned that it is too easy for me to get addicted to other substances as well.

Mark (32) Family 2

When asked whether cannabis was a factor in the domestic violence that occurred in their marriage Tina said, “Yes, it was, because I had stopped and he wouldn’t and I tried to get him to stop.” Tina’s 13-year-old daughter talked about how her father had gone to the residential treatment program, she saw this as primarily in response to his drinking and noted that their home was calmer and he was treating his family better now that he was not drinking.

Dad went to rehab this year because he was getting worse with his alcohol and stuff. He realised that if he didn't quit, he would lose all of us, because he wasn't treating his family very well when he used alcohol. So he changed. It is calmer and everything now.

Jodie (13) Family 2

Colette was the partner of a nominated cannabis user; she had been engaged with a drug and alcohol program for approximately 10 years, primarily due to her use of opiates. Colette talked about attending a women’s retreat with the program and bonding with the other women through the sharing of a joint. Although these retreats were ‘drug and alcohol free events’, Colette seemed oblivious to any idea that this might be viewed as problematic by some attendees. To her mind, a little bit of cannabis didn’t really count as drug use.

When we went on a camp, I led the girls down to the river, N gave me a smoke and we passed it around, and had cigarettes and had a smoke, and had a little talk, and watched the river, and it was lovely. It was totally discreet and gentle and then we came back and talked on the grass. Our kids were all awake, we couldn't get the kids to sleep it was so hot, and it was a good time but the whole incidence was basically a really a lovely one and it brought us together, ... Even if it was their drug of choice and they were trying to stay off it, it was just a little bit, just a little joint to pass around and very nice of N to do that and we had a lovely time, and I am not upset that we did that because well there wasn't supposed to be alcohol and it was just the one way that we could wind down. We still had our kids, we were still responsible for our kids.

Colette (36) Family 5

3.6.3 Coping strategies

Madalyn (34) and Tina (36) had both stopped using cannabis; they had found new ways to relax. Tina found that she was able to use relaxation strategies that she hadn’t found useful in the past. Tina stated, “I never found that meditation worked for me but it works now and just herbal tea works for me. I do 2-minute meditations and grounding stuff, breathing.” Madalyn had found such things helpful in the past and had adopted the practice of self-care and pampering since quitting cannabis.

[Cannabis] was just that quick ritual that took really no effort to get the desired effect which was that I was tired enough to go to sleep. So instead of actually exploring other avenues of how to sleep, like breathing techniques and chamomile tea, just little things that you do, like going and having a nice warm bath... They are all really nice, good positive things to do for yourself but I think because I was so busy looking after little kids, you fall into this trap. But the amount of baths I enjoy now, when I am not doing it, it is a lot more frequent, putting on face masks, getting the little massager out and giving my shoulders a massage, doing like candle gazing and things I was interested in before. It is all changing again. I am starting to revisit these things. Madalyn (34) Family 11

The other main strategy for coping with cannabis withdrawal was to keep the mind and body occupied. Mark said that the “acute cravings” only lasted a few days and that after that “it was more just a case of beating the boredom, keeping yourself busy.” Sally (56) agreed, saying that, “All I had to do was change my routine. I had to keep out of this room because this is where I would do it. I had to go in there and watch TV. I had to do a jigsaw. I had to keep my mind busy.”

3.6.4 Changing social circles

Linda was heavily involved with drugs when she was younger and she explained that she had to make a complete lifestyle change in order to stop using. Linda observed that her current social circle included few drug users.

When I'd decided that I'd had enough of my little lifestyle and you stop using, then you have to step out of that culture and you have to lose all those friends. They have still been a friend and supported you somehow, whether that be for good or bad and you do, you have to lose those, and you have to change friends, and you have to change locations, and you basically have to move and start all over again and not go in those circles and then life is different. ... Everyone I know is straight now. Linda (50) Family 1

Anthony had moved interstate to put some distance between himself and a former lifestyle that focused predominantly on cannabis use.

I stopped for about 3 or 4 months, where I didn't smoke anything at all. I had to leave NSW to do it. If I had stayed there, I would still be doing it just because of the people I know and my mates; everybody I knew there smoked [cannabis]. I just had to get out of it for a while, who I was hanging around with. It was just not going anywhere. Yeah, it was a different lifestyle and I got to a point where [it lost its appeal]. I had done that for probably 12 years, lived like that. Anthony (36) Family 3

For some people giving up cannabis meant having to separate themselves from close friends and family who were also cannabis users. Tess explained that she was desperate to stop using cannabis at some stage but noted that this would, at least initially, involve having to stay away from her closest friends, her mother, and probably her sisters, as well.

I have given up at different times, I have always probably taken it up [through contact with her.] I have generally still thought, “I will just have a smoke with you” and then I

have starting smoking again, so that is very challenging. The other thing that is very challenging is the fact that if I want to give up then I would have to not see her for a while because it is very challenging to go there and not smoke. My mother as well, it is very challenging to go there if I am trying not to smoke. Tess (34) Family 12

3.6.5 **Never want to quit**

Some cannabis users stated that they had no intention of ever giving up their cannabis use unless it led to significant health problems. Lynette (37) described it as “*something I will probably use for the rest of my life, pot.*” Renee (47) acknowledged that, “*Unfortunately it will slowly go down but I doubt it will ever really change.*” Craig (50) also had no intention of stopping, stating, “*I would have to have a health problem to make me not want to do it.*”

3.6.6 **Reasons**

Although many of the cannabis users in this study had no intention of quitting many participants had times in their lives when they had ceased using cannabis. Their reasons for stopping were varied and sometimes their means of doing so involved a radical lifestyle change. For example, Anthony moved interstate in a deliberate attempt to reduce his consumption of cannabis.

I knew that I was smoking too much. A lot of my mates were older than me and I basically looked at them and thought, “That is not what I want to be. I don’t want to be like that.” I just had to get out of it for a while, who I was hanging around with. It was just not going anywhere. Anthony (36) Family 2

Mark underwent a residential drug rehabilitation program; his primary reason for quitting cannabis was that he came to recognise that he was unable to manage his drug use in a responsible way.

It got out of control. I got back on the booze and just started smoking heaps of pot. I wasn’t doing it for fun, it was just self-destruction really. I was just depressed. One thing leads to another and I have come to realise that I can’t use it at all. ... I know that if I have a cone now it would affect my life negatively. After doing rehab, I learned that it is too easy for me to get addicted to other substances as well. Mark (32) Family 2

Mark’s wife, Tina had given up cannabis before Mark went into residential treatment as she had suddenly found that cannabis made her feel paranoid and uncomfortable. Tina wondered if the fact that her eldest daughter had just become a teenager might have been pivotal in her change of heart toward using cannabis.

I just stopped because I didn’t like it anymore. I didn’t see any use for it anymore. It just clicked with me. Maybe it was my mother instinct, I don’t know but it just clicked over for

me. No more! And perhaps remembering what I had been through and looking at my daughter at that age and thinking 'shit, I can't do this.' Tina (36) Family 2

Although she only used it late at night, Madalyn “just decided one day, ‘no this is it, the girls are getting older and I don’t want them going through my room to find it to start’.” Lindsay, who was 18, described how one of her friends had been using drugs excessively but had given up when she found herself pregnant.

My friend used to be really into drugs and she was pretty bad. Then she got pregnant when she was 16 and she just stopped all that because she decided that her baby was more important. She is a really good mother but we say that her baby is what saved her. ... I think it is something that tends to just stop with [motherhood]. My mum used to do drugs as well, which is hard to believe but I think she just left it behind in her youth. Lindsay (18) Family 4

Hence, some women were able to give up when they were pregnant, others continued to use throughout their children’s childhoods, and some became motivated to quit when their children became teenagers.

Other reasons for temporarily quitting cannabis included going to hospital, going overseas, and drug testing in the workplace. Liam (20) smoked cannabis heavily but said it was not difficult to stop when necessary. “When I started my apprenticeship, I gave it up for 6 months because I knew I was going to get drug tested and then I left that job and went to another company. I don’t get drug tested here.” Sally (56) gave up for 8 months. She stopped because “I had to have an operation and I was really worried about going into hospital and I wanted to give myself the best chance so I decided that I would stop smoking.” Tess (34) struggled with quitting but mentioned that she had given up approximately five times over the years. On one occasion, “I went to America [and] because I was in another country and [although] people there smoked I didn’t want to because I felt a little bit uneasy there.” Hence, people were quite attached to their cannabis use but were able to stop, at least temporarily, when they had sufficient motivation to do so.

Summary.

Despite long-term parental use of cannabis there was a sense among the families participating in this research that cannabis could be safely used on a regular basis with minimal negative effects on family life. Cannabis users in the current study frequently justified their use of cannabis by placing it on a par with the use of alcohol, indicating that they used cannabis in the same way others used alcohol - to relax, unwind, and socialise, particularly on weekends. Participants found cannabis to be affordable (especially if they were able to grow their own) and relatively less harmful than other drugs, including alcohol, other illegal drugs, and prescription

drugs. Nonetheless, participants recognised the potential for cannabis, like other drugs, to be consumed in a way that could lead to problems for the individual and their family.

Family members' accounts of the quantity of cannabis used by the nominated parent tended to be consistent with the cannabis users' self-reports, with most of the parents in the current study typically using a small quantity of cannabis most evenings and/or weekends. Participants tended to monitor their cannabis use to ensure that their rate of consumption did not increase over time and many considered it important to have days when they were abstinent. Most participants argued that they were not preoccupied with obtaining and using cannabis but rather gave priority to their responsibilities, such as work and caring for children. Participants in the current study did not belong to a drug-using or criminal subculture and their lives revolved around family and work, rather than their drug use. Hence, they tended to be responsible and relatively well functioning members of society who argued that they used cannabis responsibly rather than recklessly, just as many people are able to use alcohol without developing problematic patterns of drinking.

Theme 4. Attitudes

This theme was associated with empirical data indicating that when parents use drugs their offspring were also more likely to do so. Attitudes toward drug use held by young people in the family were compared with attitudes and behaviours of their parents allowing for consideration of actual experiences and any relevant modelling. This theme incorporated two major sub-themes related to attitudes in the family toward drug use: (1) Modelling and drug-related behaviour; and (2) Normalisation of cannabis use.

4.1 Modelling and drug-related behaviour

This sub-theme included data from seven minor themes: 1) Initiation; 2) Young people's drug use; 3) Openness with parents; 4) Saying no; 5) Attitude to parental use; 6) Parent blame; and 7) Other influences.

4.1.1 Initiation

Most of the older generation of cannabis users reported their first use of cannabis when they were in high school at about 16 or 17 years of age. Craig (50) was typical, *"I first started when I was in high school ... about 16 years old."* Linda (50) said it was so long ago she couldn't *"even remember the first time ... I was about 15 or 16."* Madalyn (34) stated that she was *"handed a bag of weed at 15 by my dad. ... It was something that I just grew up with."* Tina (36) had the earliest

initiation into cannabis use, *"I started when I was 9."* Tina informed me that she was introduced to cannabis by her stepfather in the context of a sexually abusive relationship. The younger generation of participants tended to have initiated their cannabis use somewhat earlier than their parents at about the age of 14 or 15 years. Some were introduced to cannabis at a very young age, usually in the context of helping themselves to their parent's cannabis without their parents' knowledge. Sometimes they were so young that they did not fully appreciate the significance of their find. Jenni (27) remembered *"stealing it off mum"* when she was about 11 and *"started smoking it but I actually didn't know how to smoke it."* Molly and Heather were childhood friends; their mothers were both nominated cannabis users in the current study, with one introducing the other to the researcher. Heather informed me that:

[We] knew what was going on from a pretty young age, like about 9. When we were really little, me and Molly did stuff because we knew [our mothers] were doing it. This was how we started smoking weed; we would steal it from Rachel [Molly's mother]. When we were about 11, we would steal her weed bushes from the back yard ... and we would sell it to the kids at school ... and my brother because he was older. He used to buy it off us and ... we didn't know what to do except buy lollies with our money. So that is probably how we got into knowing what was going on. Heather (20) Family 1

Women in the current study often started using cannabis when they were older, due to entering a relationship with a partner who used cannabis. Carol (50) said she first used cannabis *"when I met my first husband. He had smoked for years before I met him and he basically introduced it to me."* Kelly (44) had been using cannabis on weekends only in the last two years after disapproving of it before that. She said, *"The only reason I actually started using cannabis was because I trusted Philip. I knew his story, so I thought it can't be all that bad."*

Aaron (49) recalled that only a few days before he tried cannabis, he had no intention of doing so.

There was something on television about drugs and my dad turned to me and says "what do you think about drugs?" And I said, "I think it is crazy, I would never use it, and I meant it 100%." And about 3 days later I was at a mate's house and he had a joint and he said "do you want some?" and I was "yeah", not a second thought.

Aaron (49) Family 5

Aaron's quote is a reminder that for young people initiation into drug use is often impulsive, opportunistic, and involves the peer group. Martin (22) was introduced to cannabis in the home when, as a young teenager, he suddenly acquired several older siblings (3 stepbrothers and a stepsister) who introduced him to cannabis.

They are the ones that usually got it. I am not saying they forced me to go on it or anything, but they were the ones who were able to get it. They were the ones that knew people but I would never say no to it. I had never tried it before then but.

Martin (22) Family 9

4.1.2 Young people's drug use

Martin was now 22 and his mother (Tracy) was worried about his use of illegal drugs.

I have spoken to Martin about it because I wanted him to know how I felt. I was very depressed about his situation, without wanting him to become depressed about his situation. Well in his mind he is having a great time, he is doing this and doing that, but he knows that, not so much that I am disappointed in him, I don't want to say that, but he knows I want more for him and I want him to want more for himself but sometimes it is like bashing your head against a brick wall. [My son] has had a huge problem, oh yeah, and feeling so responsible for that but I wasn't the one that said 'here have a joint.' It was his choice. Craig [her husband] doesn't get it but I do. When you get that far into it, you can't always find your way out of it and that is what worries me.

Tracy (46) Family 9

Martin told me that he currently smoked two packets of cigarettes per week and drank alcohol "only on weekends." Martin said that up until recently he had been smoking cannabis every day but that he was currently using "mostly on weekends." Martin also said that he had used pills but not in the last 2 years. He admitted that he had probably gone a bit overboard with his use of ATS and ecstasy in the past but denied that his current drug use was excessive.

Yeah. [I had] lots of that [ATS]. It was related to some DJ's that I used to go and see. I did get into it a bit at one stage. I probably had a bit too much. It is not worth it to use it all the time. I taught myself how to control myself better because I am fine and I have seen people get fucked up by it.

Martin (22) Family 9

When I enquired whether there were any drugs that Martin had used that were not identified elsewhere during taking of his drug history, he told me, "Well I do like solvents and stuff like that but that is not like..." At this point in our interview, Martin's mother was in relatively close vicinity and I did not want her to hear this as I was already aware that she was worried about his drug use. Unfortunately, I did not get the chance to revisit this topic during our interview. Martin said he uses "whatever is out there with the people that I stay with. We are not drug users as such but we are all social drug users." Hence, there was some merit to his mother's worries about her son's use of drugs, however, Martin's drug use might have already peaked.

Linda and Paul were also worried about the use of drugs by their children, who were in their early twenties.

I don't know how often [Heather] smokes [cannabis]. I'd prefer it if she didn't. I would prefer that she didn't drink either but she could just moderate that, just have a couple but I think that is difficult for the kids. They just get absolutely wasted when they are out

there. They are not conscious when they are having a good time. They don't just drink to feel good. They drink to get absolutely wasted. That's dangerous. You are a liability to your friends when you are like that.

Linda (50) Family 1

I see her son as having a serious drug problem. What is happening to her son, Chris, at the moment, and has been for quite a number of years is a pretty distressing thing for her, for sure. My own two eldest [also] got into that 'drink as much as you possibly can over a weekend because all you want to do is get shit faced' and it was seemingly the norm.

Paul (54) Family 1

Heather (20) informed me that, *"I smoke cannabis with mates, probably a couple of times a week. Hydro [and it is] usually pretty potent, pretty strong. Personally I can't smoke bongs. I just smoke it in joints with tobacco."* She said that she consumed alcohol every weekend plus a couple of nights during the week. Heather said that she had tried "rock" but didn't like it, and that she was currently using ecstasy or cocaine most weekends.

I will go on a bit of a bender for a couple of days on the weekend, Thursday to Sunday, and then it gets to Sunday, I just realise it is just time to stop. You have just got to. I have never needed drugs to function, if they are there I just find it is a bit of fun. A lot of people I know get just totally consumed by drug use. For me, when I use it, I know it is completely recreational.

Heather (20) Family 1

Heather argued that her drug use was under control and she was confident that it would remain so.

4.1.3 Openness with parents

Heather (20) informed me that she had a close relationship with her mother and said, *"Now that I am over 18, we are all pretty open. Mum knows everything I do."* Yet it was clear from my interview with Linda (50) that she knew very little about her daughter's use of illegal drugs as Heather was in the process of leaving home and usually spent her weekends staying with friends. Linda knew that:

Alcohol's her thing. Oh yes, she definitely likes to drink and I don't know if she's worked out where the cut-off point is yet unfortunately. ... She smokes dope. I don't think she smokes often. No, I don't know how often she smokes. I'd prefer it if she didn't.

Linda (50) Family 1

Given the extent of her drug use described above, Paul (Heather's stepfather) was probably closer to the mark when he informed me that he was worried about the use of drugs by both of Linda's children, and was particularly bothered by the fact that they tried to hide this from their mother.

As far as alcohol goes, I have concerns for Heather; what she is doing in the way of other stuff, I don't know. I am particularly bothered by the secretiveness of it, and I refer to both Heather and Chris, and the underhandedness that goes with their particular usage and indulgence. I have never liked the pretence that there is nothing going on or they are

not doing anything, like it is some big deal to hide that they are up to something, as if we didn't know.
Paul (54) Family 1

Sally (56) had three daughters with a large age gap between each of them. The father of her eldest daughter, Tess (34), was described as a “junkie” and the family had always considered Tess to be at risk of developing problematic drug use.

We have always been told “make sure Tess doesn't take any hard drugs because it will be in her chemistry.” Genetic vulnerability, like her father. She would be dramatic like him. Personally I think she needs to use pot to keep her calm because she can be quite stressed out. I think it would be great if she stopped as well.
Sally (56) Family 12

Although Tess considered herself to be dependent on cannabis and had been exposed to other illegal drugs, she had shown almost no interest in them and was having counselling with a view to ceasing her cannabis use. Sally described her middle daughter, Jenni (27), as a “gorgeous girl but the naughty girl, the wild girl.” Jenni had been a troubled adolescent who was heavily involved with illegal drugs at a young age, to the point where she was asked to leave the family home due to her drug use.

I used to say to her, “Look Jenni, I don't mind you smoking pot but promise me you won't get into the white powders.” And she said, “I am not making any promises I can't keep.” She got into crystal meth [and] got out of that, thank goodness. She was dropping acid in school and telling me after the fact but that is when I had to let her go after that situation.
Sally (56) Family 12

Sally was aware of the extent of her middle daughter's drug use, as it had been “thrown up in her face” rather than hidden, however, at the time she had not been aware of some aspects, such as Jenni smoking when she was in primary school.

Yeah, Jenni was always really the bad girl. She was doing more than cannabis. She never saw me drop tablets or things like that. From there she went to high school and then she was dropping acid and Dexies.
Sally (56) Family 12

Jenni confirmed that she had used a lot of illegal drugs when she was younger.

I haven't taken [pills] since I was about 17. I took them from about 17 to 21 but there were a whole lot of drugs going on then. Up until about 23 I was using [speed] very regularly from the age of about 16. I used heroin for a year or so when I was 16 to 17. I took a lot of ecstasy from 16 to 23 and I actually physically can't take them now because they have affected my brain to the point where I just spaz out. I took a lot of ecstasy from 16 to 23 and that changed it. I used cocaine when I was living in America. Oh and lots of acid from when I was about 16 until about 24. LSD was all from 15 to 17. I went to America when I was about 17 and that was when I first had cocaine, with my mum's friend who was a hip-hop artist.
Jenni (27) Family 12

At the age of 27, Jenni's drug use was mostly behind her, with her heaviest period of drug involvement occurring when she was between 16 and 21 years of age.

I had a lot of fun when I was younger. I never really liked the drugs that much. By the time I got to 19 my new boyfriend was a speed addict and all our friends were speed addicts. I drowned myself for 3 years in that circle of ecstasy and speed and going out and I loved them all [her friends] but I was really just frustrated with the whole situation. So by the time I finally broke up with him I knew that it was time for me to begin something new.

Jenni (27) Family 12

Jenni said she rarely used any drugs these days but had been using cannabis with her mother and sisters as she was staying at the family home for a week when interviewed. Sally was aware that her youngest daughter's ex-boyfriend had been heavily into using ATS and she was really proud that her daughter had rejected this lifestyle.

I didn't even know that my youngest daughter smoked [cannabis]; she won't smoke with tobacco. She is smart because she doesn't smoke cigarettes. She sees me smoking and she says 'no'. She is really good because I don't think that she takes any other drugs. She has got really good morals about things. She hates the crystal meth because her boyfriend was doing it and she hated the way he was. She saw everybody change and she actually gave him an ultimatum, "you stay with your friends and you keep doing it but I am leaving." She had words with his mum and dad and she got him off that drug. That is my baby of the family.

Sally (56) Family 12

Nonetheless, I was left with the impression that Sally was naïve about the extent of her youngest child's prior involvement with illegal drugs. Piper (20) explained that she only began using cannabis when she was coming off the other drugs.

Now it is my preferred drug. I wouldn't really take any other hard drug at all. But I am so glad that I did it at 16 because I got it all out of my system and I know that it is not what I like. Basically I have tried almost everything. At the age of 16 I was quite heavily into drugs. A lot of, as we put it 'crack', that is ice, amphetamines, speed. I really wasn't into marijuana back then. I didn't want to touch it because growing up I didn't touch it. It was the one drug that Mum was like 'Piper, do not smoke! Please do not smoke' and I was a really good child growing up. So I would try everything else but no weed. Didn't want to touch it and it was probably when I was coming off of the hard drugs that I [started using cannabis]. I was living in a crack house with junkies. It was a very nice expensive house, I was living with the top drug dealers, so it wasn't like a dirty one but there were just people around all the time and it was disgusting. I was 16. I only did that for about 8 months and that was with my ex-partner who got me into that. But to come off all of those drugs, that is when I started smoking the weed.

Piper (20) Family 12

4.1.4 Saying no

Although many of the young people had significant drug use histories, younger children were adamant that they had no intention of trying drugs. Hope was 11, and said that she could never imagine herself using cannabis when she got older and was exposed to it. She said, "No, I see me walking past it and ignoring it." Jodie was 13 and had seen some of the damage that drugs could do as her parents and some of their associates had experienced problematic drug use. I

asked Jodie if she thought she would ever use cannabis, and although she recognised that many of her peers would do so, she voiced a strong intention of not making that mistake.

God no, I would want to kill myself because I think that it's really bad. ... I just think it is a stupid thing. Yeah. I know ... most people would say the same thing and then they will end up trying something when they are older but I think it is a different thing when you have seen it happen. Definitely, you just think "no." Jodie (13) Family 2

Colin was 17; he had not been exposed to individuals with problematic drug use and his stepfather concealed his use of cannabis. Colin enjoyed getting drunk with his friends on a Saturday night but said that his group of peers had rejected the use of drugs as they were athletic, studious, and academically ambitious.

My group of friends are nearly all athletic, they do sports and stuff, so none of them smokes, no one really smokes in our group. I know most of them will say no to drugs. I am not sure what it is but they really reject that idea of drugs. Well, our group has only really started drinking since maybe half-way through last year whereas I know other people who were doing non-tee subjects and they haven't really had a plan, it is hard to get apprenticeships, and they have been doing it [drinking and weed] since year 9 and 10. Colin (17) Family 3

4.1.5 Attitude to parental drug use

When younger children, such as Heath (10), were aware of their parent's cannabis use, it sometimes caused them a great deal of worry.

I would be less worried if mum didn't do it, less sort of stressed and tensed up sometimes. When she hasn't done it for a while I am not worried but when she is doing it all the time I get real worried about stuff. Sometimes I get a bit afraid because mum has got 3 pots; she calls them baby plants. Sometimes I feel like setting them on fire. I am scared. I am annoyed and angry basically. Heath (10) Family 13

Heath's older brother, Clifford (17), was much less bothered by their mother's use of cannabis throughout his childhood, saying, "It was just something that mum did and that I wasn't really interested in." Lindsay (18) recalled that as a teenager, she had been "a bit embarrassed" about her father's use of cannabis because she thought it was a "bogan" thing but said that it no longer bothered her at all. In fact, the older children of cannabis users seemed to take their parent's lead and were fairly unconcerned about their parent's use of cannabis. Zabina (15) had not tried cannabis herself but said, "Apparently it is not as bad as all the other drugs" although she was aware that it would be "hard to try to explain to other kids" if they found out that her mother used it.

Many of those whose parents used cannabis had a relatively liberal approach to cannabis, and often used cannabis themselves. Tess (34) said that in her family "we smoke pot but I think of

all the drugs it is the most natural. So if we are going to take drugs, we do it naturally.” Even those young people who didn’t use cannabis viewed it less unfavourably than other illegal drugs.

I think if I didn’t have the experience of my parents, I probably would be a lot more negative about it because I am so negative about all the other drugs but I think I am just a bit more open-minded to it because I have seen that you can still have quite a normal life and smoke with it, so yeah, I don’t really judge if someone smokes cannabis.

Rachel (22) Family 6

Lisa (25) remarked that because her “parents’ friends were also users it wasn’t really a big deal” because she and her sister grew up playing with friends whose parents used cannabis socially with their parents. Rowena (22) disapproved of her father’s ongoing use of cannabis saying, “*I don’t honestly like it but at the same time I am also of the opinion that it is not necessarily as bad as other drugs.*”

4.1.6 Parent blame

When asked whether he felt that his father’s use of cannabis had influenced his own attitude toward smoking cannabis, Alec (20) said, “*Probably, I mean if he had been fairly against it then I probably wouldn’t have been so likely to have started*” but added that he didn’t “*think it was too big a deal.*” Tracy (46) was called a “hypocrite” by her son when she chastised him for smoking cannabis in his bedroom.

At times, he has called us hypocrites and things like that. And we have tried to say that yes we have done these things but there are times and places and things like that and I put my foot down about in the house.

Tracy (46) Family 9

Heather (20) was using a lot of recreational drugs when interviewed and her mother had used heavy drugs when she was a young woman too. Heather also responded in the affirmative when asked if she thought that her mother’s attitude towards drugs had influenced her own use of drugs, saying:

Probably, using cannabis just felt a little bit more comfortable and I don’t have to hide it, therefore, it’s easier for me. As a kid I always thought I won’t get into much trouble because mum does it. When I was about 13 or 14 I went through a stage where I thought it was really cool and I was never scared of mum catching me because I could just turn around and say, “well, you do it, so ...”

Heather (20) Family 1

Heather’s stepfather also mentioned that Linda’s children would sometimes blame her for their use of illegal drugs as they knew about her early history. However, Paul felt that they were just making excuses to justify their own drug use.

They sometimes tell their mother “it is all your fault because you were a drug addict” but that is just them using an excuse. My perspective on that is ‘no’, I don’t see any

relationship between Linda and the way she has been using [cannabis], and her history of [heroin] use either, as having any relationship whatsoever to whatever Chris and Heather have got involved in. They have got involved in their own way, independent of anything that Linda was ever connected to.

Paul (54) Family 1

Linda acknowledged that her son, whose drug use was at problematic levels, would sometimes challenge her by saying, “well, you used to be a drug addict, [and] you survived!” Linda’s response was that people who use illegal drugs “don’t always survive.” Her attitude was that, “if you do pop out the other end I think you’re just lucky really!” Hence, despite her own capacity to disengage from heavy drug use in her youth, Linda worried about her children’s capacity to manage their use of drugs in the long-term. When asked whether her own cannabis use might have been a factor in Chris’s use of drugs, Linda first said “no” but then considered the matter further.

it could have ... [because] when he was about 14 or 15 he found some of my smoke one day and a couple of years ago he told me that it was the best smoke he has ever had. He’s never had anything that has ever come anywhere near it. ... But did that [influence his later use of drugs]? No. I think he was making his own discoveries and he would have sought that out from somewhere else anyway, which he obviously did in the end - when he went to live with his dad when he was in year 8.

Linda (50) Family 1

Tracy said that her husband’s ex-wife had blamed their son’s use of cannabis on the fact that his father used cannabis. However, the young person in question was apparently surprised when his father was implicated as he had been living with his mother and was not even aware of his father’s cannabis use.

It is unfortunate that all of our kids have gone down that road. Craig’s ex-wife blames Craig that the kids are like that because of him but that is not true. [His son] wasn’t even aware that his dad smoked.

Tracy (46) Family 9

Linda noted that her own drug use when she was younger was unrelated to use of drugs or alcohol by her own parents and argued that young people just made their own choices.

When I was right in the midst and things were really heavy, I never, ever blamed my parents for where I was or if I took drugs or had too much to drink or hung out with the wrong people, they were my choices. My parents were pretty straight and they were there. They were always there for me. So, I can’t blame them for my lifestyle. Although my mum might sit back and think, “oh what did [she] do wrong and that?” And I’ve said, “well, you didn’t do anything wrong”.

Linda (50) Family 1

4.1.7 Other influences

Mark (32) had been influenced by the fact that he had a successful uncle who used cannabis.

I used to be sceptical of all these people who were anti-dope and I used to see my uncle and he is really successful and he smokes. He smokes like I do now, but I didn’t get that

at the time. It was like “how come he is smoking?” and I realise that there are degrees now.
Mark (32) Family 2

Participants were as likely to be influenced by their peers as they were by older family members.

Heather (20) said that a lot of her friends *“have normal jobs and go to work all day and they smoke a lot of weed at night time but they still function normally.”* Colin’s peer group had a more positive influence.

My group of friends are nearly all athletic, they do sports and stuff, so none of them smokes, no one really smokes in our group. Most of them will say No to drugs, I am not sure what it is but they really reject that idea of drugs.
Colin (17) Family 3

4.2 Normalisation of cannabis use

This sub-theme included data from five minor themes: 1) Everyone does it; 2) Developmentally normal; 3) You outgrow it; 4) Normal in my family; and 5) Normalising drug deals. This sub-theme included data about the social acceptability of cannabis use, including perceptions of cannabis as less harmful than other illegal drugs. Participants also tended to accept the use of AOD as a normal aspect of development rather than viewing it as problematic behaviour that required intervention.

4.2.1 Everyone does it

In some communities cannabis use was widespread. Anthony (36) reported that when he lived in rural NSW *“everybody [he] knew there smoked [cannabis].”* Heather (20) described cannabis as *“a little bit more acceptable [than other drugs] in the sense that a lot of people do it.”* She remarked that, *“You don’t have to be a druggie to smoke weed.”* In fact, Heather said that her friends were *“heavy marijuana smokers”*; her brother *“started smoking weed when he got to high school [and] it became a big part of his life”*; and both her parents used cannabis. So she had seen cannabis use that had developed into problematic drug use, as well as the more controlled use of cannabis by her mother. *“The way that [dad] smoked weed was a lot different [than mum].”* Hence, the use of cannabis was normalised in Heather’s experience.

Mark (32) agreed that *“pot and alcohol”* were *“just everywhere.”* His wife agreed that people were quick to describe cannabis as benign, stating, *“Cannabis is a lot like alcohol in the way that it is used, in that it is not taken seriously as a drug. With cannabis, it is like, “oh well it is just pot.”* Mike, who was 51, also remarked that in his experience cannabis *“has always been seen as entirely socially acceptable.”* He said it had *“always been that way ever since [attending]*

university [in England]", and "living here [in Australia] people that I have known have smoked [cannabis] and it has not been frowned upon or looked down upon by anybody I have known through my social circle." Mark's 18-year-old daughter remarked that it was not unusual these days for parents to be cannabis users.

My dad's generation grew up with it. I know quite a few people whose parents do it and they are just normal people, like my dad. I think it is becoming more socially acceptable, a lot of people use it and it is definitely common. Recently I have realised that a lot of people I know who are from good backgrounds, like one of my friends whose dad is a bank manager, he is a stoner as well and a few of my friends' parents do it.

Lindsay (18) Family 4

4.2.2 Developmentally normal

Many parents were worried about their children bingeing on alcohol and drugs. Paul (54) noted that, "Trying to stop the children from doing anything, or indulging, has been virtually a hopeless task. It appears to be largely a hopeless task generally, not just in this family." His wife, Linda (50) argued that it was "a part of life to explore [drugs] and to go through it and come out the other end." Craig (50) didn't think legislating against certain drugs was going to make much difference, saying, "It doesn't matter what the laws are, they are still going to have to go through that." His wife, Tracy (46), agreed that their "kids were just going to do it no matter what." Tamara (33) agreed that it was developmentally normal, stating that, "they will probably do these things anyway because a lot of the young ones do." Tamara had never shown an interest in using cannabis beyond an initial short period of exploration. She noted that in her case, her dad had found out she used cannabis when she was a teenager and, "He was just fine with it, wasn't bothered at all. He said, 'it is just what it is'. He was cruisy like that but we weren't allowed to drink." Colette (36) claimed that "You cannot stop a kid from doing it. Tell them no and they will do it anyway." Clifford, who was 17, agreed.

In my own experience I know that with teenagers and early teenagers they are going to try certain things. They are probably going to try cannabis and maybe some ecstasy or other things like that. So an iron fist isn't helpful because it is going to happen anyway.

Clifford (17) Family 13

4.2.3 You outgrow it

Heather (20) felt justified in her use of drugs while she was young, stating that, "Cannabis use is something that you grow out of. It has to fit into your lifestyle." In fact, most of the young people in the current study described cannabis as something that they had used briefly or intermittently on social occasions.

I didn't see [stopping it] as a big deal. ... It was only a few of my friends that did it anyway and a lot of the people that were around didn't smoke it or they had tried it before but it wasn't like all of my friends all smoked and that is all that we ever did when we hung out. So it wasn't much of an issue [to stop]. I just thought, "I have had enough of that and it feels a bit childish now."
 Lisa (25) Family 6

At 18, Lindsay rarely used cannabis any more.

[Using cannabis] is kind of a teenager thing. It is just not really that important any more. I guess a lot of the people I used to know, I have far less contact with them [now]. One of my friends who I used to do it with, she got pregnant and had a baby and so she kind of cleaned up a bit. It is weird though, I have noticed that a few of the dads do it but not the mums. I think that it is something that even though they might have done it in their youth, I think that for the women having children might have stopped them. I think it is something that tends to just stop with [motherhood]. My mum used to do drugs and stuff, as well, which is hard to believe but I think she just kind of left it behind in her youth.
 Lindsay (18) Family 4

Lindsay's father confirmed that his "ex-wife was a big time drug user in the past, much worse than I was. She changed totally when she got pregnant. She went from one extreme to the other, as happens, I suppose." Hence, Lindsay was probably correct in her observation that women were more likely to naturally outgrow their use of drugs than their male counterparts, particularly due to the responsibilities associated with pregnancy and motherhood.

4.2.4 Normal in my family

Many of the nominated cannabis users in the current study were mothers rather than fathers and many children grew up in a family where cannabis use was normal. Renee (47) was aware that she had "normalised it in my family." Sally (56) recalled that smoking cigarettes inside the home was normal back when she was raising her children and didn't think that her children would have seen her use of cannabis as much different to the smoking of tobacco.

I used to smoke in the same room [as the kids]. Everyone used to smoke cigarettes in the home back then anyway. Maybe they wouldn't have known it was any different. Yeah, and I always used to smoke cigarettes to start off with and they would have just got used to it. It would have been happening since birth.
 Sally (56) Family 12

Her daughter, Tess (34), confirmed that this was the case.

It was always done, so I didn't know any different. I never, ever thought that it was a bad drug but it is funny you have just really made me aware of the difference between myself and most probably most children out there. The fact that I probably had a desensitisation to drugs and the effects that it has but the difference was that in those days there was not that realisation and everything.
 Tess (34) Family 12

Tina, who was introduced to cannabis and heroin as a child through a process of sexual abuse by her stepfather, commented on how she really didn't know any better when she was a child.

To me it was very normal and while it is normal to me, other people don't see that and get more upset. It was much less upsetting when it was normal, even though that is hard for people to understand, but now that I know it isn't normal it is much more upsetting.

Tina (36) Family 2

Carol recalled how her children had thought that it was very normal for people to grow plants in a wardrobe inside their home.

When Lisa was about 2 or 3 years old we had these plants and we called them our baby plants, and she knew that they were baby plants because everyone came and admired the baby plants. I remember one of the neighbours came over for a coffee one day and we were sitting there having a coffee and Lisa comes up and she is about 2 or 3 and she says to her "do you want to come and look at the baby plants in the wardrobe?"

Carol (50) Family 6

Hence, the experience of cannabis use was quite normalised in some families.

4.2.5 Normalising drug deals

As a consequence of the normalisation of cannabis use, there is also a normalisation of drug deals involving cannabis. Liam (20) purchased cannabis from a number of people, including his father's friends and the mother of one of his friends. He explained that buying in bulk (by the ounce) and selling some to his friends meant that the cost of his own cannabis use was minimal.

I know a fair few people [to buy it from] now. I can get really good ounces because my dad's mates like me because they have known me since I was this big. Yeah, they love me coming over. If I can pick up an ounce at the start of the week, I will be able to take half of what I get [for my own use] and just flip the rest and make my money back plus a little bit and that will last me the rest of the week. I am not spending anything. I also buy it off my mate's mum sometimes too. I would lose about \$300 a week if I didn't [do it this way].

Liam (20) Family 8

Tess (34) also implied that she was dealing in cannabis to support her own habit as she was a single parent who relied on welfare payments for her income.

I have quite a few friends who smoke and will give me some credit until I get my parenting payments and stuff. I don't really spend that much because I know a lot of people who want it but I don't actually spend money on it.

Tess (34) Family 12

Colette (36) was also a single parent on Centrelink benefits; she informed me that her next door neighbours were dealing cannabis and that her eldest son, Jeff (12) and his friend, had observed the purchase of cannabis and its preparation for smoking.

The neighbours don't care, they sell pot themselves [laughter]. People offer it to me. [Neighbour] just dropped that over to me from nowhere just because I gave him some milk for the baby. So, it comes from nowhere. They [her son and his friend] also see Aaron dealing it to Pete. Pete comes over and David is his son and David and Jeff watch him get it out and hand it over to him but then we cut it up in front of them too. Jeff just comes around and says "what's that"? We tell him the truth. They also see Aaron dealing it to Pete. Pete comes over and David is his son and David and Jeff [my son] watch him get it out and hand it over to him, but then we cut it up in front of them too. Jeff just comes around and says "what's that"? We tell him the truth.

Colette (36) Family 5

Lynette (37) had been arrested for purchasing cannabis and, at the time, her daughter had been in the vehicle with her.

Usually she doesn't come with me. Usually I don't let her do that or I do it when she is not around. I don't want her to be in that scene and be seeing stuff. I was like, "oh my God, what am I going to do? My baby is in the back." I was thinking, "what if the cops put me into the child welfare or something like that" but I think they seen that I was quite normal and was honest and they just let me go and sent me a fine. Lynette (37) Family 7

Lynette had since ensured that her daughter was never with her when she was obtaining cannabis. Lynette was currently purchasing her cannabis from older women in the context of calling in for a cup of tea.

Because we are older it is harder to score, as well, because at the moment it seems like a lot of the younger kids have got it. At the moment there are two places I get it from and they are both elderly ladies, probably grandmothers. So you don't really feel like you are doing anything bad really. I go over there and have a cup of tea and get my pack. I don't care if my car gets seen outside there. Yeah it is really good. Lynette (37) Family 7

The current arrangement allowed Lynette a sense of normality around her purchase of drugs and decreased her perception of the risks involved.

Summary.

Nominated cannabis users in the current study were aged between 31 and 56 and therefore represented an older generation of cannabis users who had been introduced to cannabis when they were in high school or at university. In a minority of cases, participant's initiation into cannabis use occurred as a direct result of being provided with cannabis by their own parents. Many of the young people (children of cannabis users) also had a liberal approach to cannabis and many used cannabis themselves or had done so in the past. Young people often admitted that they had taken some of their parent's cannabis in the past without their parents' knowledge. Young people seemed to take their cues from their parent's attitude and tended to have few

concerns about their parent's use of cannabis, although children aged 12 and under were sometimes worried by knowledge of their parent's cannabis use.

Children aged 13 and under were adamant that they did not intend to ever use drugs, however, many of the young people (aged 18 and older) had significant drug use histories. Their introduction to illegal drugs usually occurred when they were in high school (aged between 13 and 17) and was often impulsive and opportunistic. Young people acknowledged that their parent's liberal attitude toward cannabis was a significant influence on their subsequent choice to use cannabis and young people indicated that knowledge of parental cannabis use made it easier for them to use cannabis without having to worry too much about their parent's reaction. Young people's attitudes to cannabis were also influenced by non-resident parents, extended family members, and older siblings, as well as the peer group.

The majority of families in the current study were blended families and often one parent was more liberal than the other, hence, young people sometimes self-selected into a home environment that was more tolerant of their desire to use cannabis. Many parents were worried about their children bingeing on alcohol and drugs whereas young people were generally confident that their use of AOD was under control and would remain that way. Most parents were naïve about the full extent of their child's use of other illegal drugs. For many young people, the use of cannabis had peaked by the time they were 18 or 19 and this was especially true of those who were undertaking university studies. This was in contrast to the use of cannabis and other drugs by their parents, whose use was often at its peak when they were attending university. Parents tended to believe that the use of cannabis by their children was unrelated to their own use of cannabis, arguing that drug use was developmentally normal and that young people had made their own choices independently. Cannabis use was normalised in some families, and in some communities the use of cannabis was widespread and socially acceptable, contributing to the perception of cannabis as less harmful than other illegal drugs.

Theme 5. Communication

This theme was about the level of communication that goes on in families regarding the use of drugs by family members. In some families, parental cannabis use was openly acknowledged and discussed, whereas in others it was a taboo subject that was rarely, if ever, broached, and in other families children were thought to be completely unaware of their parent's

cannabis use. Data were organised into three sub-themes: (1) Children's awareness; (2) Conversations about drug use; and (3) Other information.

5.1 Children's awareness

This sub-theme was about children's awareness of their parent's cannabis use. It incorporated data from five minor themes: 1) Parent openly uses; 2) Parent hides use; 3) Smell; 4) Early awareness; and 5) I always knew. Parents had different ways of handling their cannabis use, with some smoking openly in front of their children and others completely hiding their cannabis use from their children. This sub-theme described children's developing awareness of their parent's cannabis use. Children tended to be aware of their parent's cannabis use from a younger age than parents realised and many claimed to have always known about it, although when they were younger they didn't necessarily have the vocabulary or cognitive capacity to fully appreciate that their parent was using an illegal drug. For children their understanding usually developed gradually throughout childhood rather than in a particular moment of discovery. The smell associated with using cannabis was distinct and contributed to children's awareness that cannabis was being used in the home.

5.1.1 Parent openly uses

Sally (56) recalled that when her children were younger it was quite normal for parents to smoke inside their home. Sally, her husband, and their friends smoked cigarettes and cannabis in their home, sometimes in the same room as their young children. Like other parents, she believed that young children they would not view the smoking of cannabis as any different to the smoking of tobacco.

I used to smoke in the same room [as my kids were in]. Everyone used to smoke cigarettes in the home back then anyway. Maybe they wouldn't have known it was any different. Yeah, and I always used to smoke cigarettes to start off with and they would have just got used to it. It would have been happening since birth. I never hid it from my children. I reckon I would have hid it if I was sticking a needle in my arm but I just didn't want to hide smoking. I don't know why. I just decided I was never going to hide it.

Sally (56) Family 12

Sally's eldest daughter, Tess (34), remembered being present with her parents and their friends when they were using cannabis. Sally had two other daughters, Jenni (27) and Piper (20), and Tess noticed that over time her mother's attitude changed, so that by the time she was raising the younger girls she had become more conscious about not using cannabis in their presence. Tess had a 2-year-old child of her own and found herself sending him away so she could smoke cannabis without him present.

It was always done so I didn't know any different. Because I hung out with the adults and stuff, they would just do it around me. ... I watched mum become more sensitive to it around the [younger] girls. I did and she started getting more like that, "go on, off you go", start to shush them away and I have seen myself start to do that with [my son] and I don't like it because it think it is really not fair to him because I am really not giving him the attention and stuff.

Tess (34) Family 12

There was 14 years between the time that Sally raised her oldest daughter Tess and her youngest daughter Piper. Although Sally was much more discreet about her cannabis use by the time she was raising Piper; Piper knew exactly what was going on from a young age because her sister, who was seven years older, told her everything.

I grew up a lot earlier because of Jenni. She really taught me everything. Mum really tried to keep it secret. She would go outside and she would shut the doors and she would smoke and it came to a point where I think Jenni just told me everything.

Piper (20) Family 12

Renee (47) had also smoked cannabis in front of her children; she tended to smoke it in her bedroom or outside on the back patio. Renee found that as her children got older she had to be more careful about leaving cannabis around as she realised that her eldest daughter, who was in high school at the time, had been helping herself.

I have never actually hidden it from them. I have always smoked in front of them, like a cigarette. [At one stage] I realised that it was going down too quick, so my daughter was taking it off me. She was about 14 and a half.

Renee (47) Family 13

Renee's daughter, Molly, said that her mother had not deliberately lit up cannabis when the children were present. Other parents agreed that they would not hide their cannabis use from their children entirely but they also tried not to actually smoke it in the presence of their children.

When I grew up mum was always smoking marijuana, when we were younger it was called 'green'. She wouldn't shove it in our face but if we walked in and we found that she was smoking a joint she wouldn't just stub it out but she tried not to do it in front of us.

Molly (19) Family 13

A number of parents argued that by being honest about their use of cannabis, they hoped that they would have a more open relationship with their children, in which their children would find it easier to be honest with their parents about any problems, such as drug use, that they were going through themselves.

I just think it is better to be honest with your kids because otherwise your kids are not going to be honest with you. If you are not honest with them, they will not be honest with you. ... It worked for me and it worked for other friends that did it in front of their kids from infants, and their kids don't think anything different of it because they were brought up with it, and I think you shouldn't really hide it. If you are doing that stuff, don't hide it from your kids. If you think it is wrong, then don't do it. Yeah, well you have

got to be honest with them because otherwise they are not going to come to you with other problems.
Carol (50) Family 6

5.1.2 Parent hides use

Although some families refused to hide their use of cannabis from their children, others considered it to be adult business and preferred that their children not know of their cannabis use at all. Anthony (36) smoked rollies and found that this provided him with a “cover” as he could go outside and smoke a joint without his stepsons being aware that he was smoking cannabis. Nonetheless, he was worried that his oldest stepson, Colin (17), had become aware of his cannabis use as he thought that Colin had recognised the tell-tale redness to Anthony’s eyes.

I know Colin [knew]. He could tell by my nice red eyes, they were a giveaway every time. I would come in from outside and he is the sort of person who would look at you and I could see [from] his reaction that he had seen my red eyes and he definitely knew. He knew all right. ... Yeah, It would be interesting to see if he did know or not. It’s not a major thing anyway, if he did know but it doesn’t stand out, I try to be a bit discreet. I go out the back and let the wind get rid of the smell and that.
Anthony (36) Family 3

Anthony’s wife, Tamara, didn’t believe that either of her sons was aware of Anthony’s cannabis use. She felt that if her eldest son had realised this, he would not have simply let it pass without mention.

I think he would say something for sure. He would say “well, Anthony does it” or something. Yeah, he would. He would definitely challenge that, especially at that age. They challenge everything you do.
Tamara (33) Family 3

Trevor (45) also had two sons in high school and like Anthony he would smoke a joint outside when the children were not around. Although Trevor enjoyed using cannabis, he stated that he would be quite happy if his children never became aware of this aspect of his life.

I am very discreet about it. The kids wouldn’t have a clue. I have almost been busted a few times especially when they were young but I am pretty sure they have got no idea and that is the way I would like to keep it. I have been very disciplined about that. ... I’d be happy if they never knew to be quite honest.
Trevor (45) Family 10

In one family, the children knew that their mother smoked cannabis at night, after their bedtime, but they confirmed that they had never actually seen her smoking it. Zabina (15) said, “I was never around it. Mum would do it in her room and tell us to go away.”

She only did it late at night when we were in bed and not in the mornings. She never used to do it in front of us. I never used to see her stoned or smoking it or whatever. Once or twice I seen her cutting it up and getting ready for bed and that’s it. I was never around it. She would do it in her room and tell us to go away.
Amber (13) Family 11

5.1.3 *Smell*

Some children became aware of their parent's use of cannabis because they came to recognise the distinct smell. This was how Chelsea realised that her stepfather was smoking cannabis. She didn't really have an issue with this occurring, as long as it didn't happen when her friends were over; it seems she just wanted to name it and let her mother know that she recognised the smell of cannabis.

She knows Philip uses it. She smelt it. She has a great sense of smell. She used to smell it on him. I couldn't tell you at what point she actually knew. And I couldn't tell you how she made the connection. She just complained about it one day. She said "I wish he wouldn't smoke that stuff. It stinks!"

Kelly (44) Family 8

He does it upstairs, after he does it 20 minutes later you can smell it downstairs for 5 minutes. I don't mind, and whenever friends or relatives are over, mum is always like, "don't do it in the house because you can smell it."

Chelsea (15) Family 8

Lynette used incense to try and mask the smell of her cannabis use; like other parents, she would tell her daughter to go away if she approached her when she was actually using cannabis.

I have a bucket bong. I used to keep it in the laundry sink but I think I can smell it out there so I moved it into my bedroom where there is a window and I just blow it out of my window. It stinks so much; I think everyone can smell it. So I light my incense at the same time. I don't do it in front of my daughter. It is just that she can smell it and I don't like her in there when I am smoking because the smoke could get into her face or anything. So I would yell, "Get out of my room." She hasn't seen [me smoking] it but she knows what is going on and she can smell it and she is not stupid nor would I treat her like that; she can come into my room and it is sitting there anyway.

Lynette (37) Family 7

Sally noted that although parents often tried to hide their cannabis use from their children by smoking in their ensuite bathroom under the ceiling fan, their children often knew what was going on because they could still smell it.

I know people that have hidden it and it is so strange because those kids know that their parents are smoking. I know, because my kids remember their friends would say "mum thinks I am bloody stupid if she thinks that I can't smell it when I am walking past her bedroom if she is in the bathroom thinking that the fan is going to cover it up."

Sally (56) Family 12

5.1.4 *Early awareness*

Children were often aware of their parent's cannabis use earlier than what their parents had realised.

When I sat down to talk to my two middle teenage children, in the 14 or 15 age group, it was like, "well, gee dad, we knew [that]. You used to think we didn't, but we did!" and so it was interesting to have my daughter tell me that at 15. We never did it in front of them and you thought they didn't know but they did know from a younger than you

would like to probably admit they knew. I guess at the time I didn't see that they knew, although after a while you did, as they got older and grew up but I kind of consoled myself a wee bit with the fact that all my friends and everyone would always go away and do it and so that was at least giving an indicator that it is an adult thing to do and not a kid thing to do.
Craig (50) Family 9

Young people tended to state that their parent's cannabis use was something that they had just always known about. Heather (20) said, *"I always knew but there was never any confrontation about it. I just figured mum did what she wanted to do, and it wasn't affecting me."* Tess (34) said, *"It was always done, so I didn't know any different."*

It is just a noticing that it is happening, which is the way I grew up too. My parents didn't discuss drugs with me, that didn't fit into our relationship. It was all observation and you pick up just as much, you just have to work out what it is.
Colette (36) Family 5

Some children were aware of their parent's use of cannabis from a very early age. Carol and her husband smoked cannabis around their daughters, Lisa and Rachael, from the time they were born. Carol (50) said, *"I got arrested when my eldest was in grade 1 and Rachel was 2. She knew it was to do with the plants because the police took them. So Lisa knew what was going on."* Jodie (13) also remembered the police coming to their home when she was younger, *"the cops came once but they only found a little bit."* She also informed me that when she was 11 or 12 she had sometimes found some marijuana in the house and *"chucked it in the bin"* without mentioning to her parents that she had done so.

Younger children in families tended to develop awareness of their parent's use of cannabis at an earlier age than their elder siblings.

They are more aware than other children are for sure and the youngest ones will be compared to the older ones. It took Molly until almost 10 to realise what was going on but the younger two are aware. Yes I don't hide it from them [but] I have never advertised it.
Renee (47) Family 13

Heather (20) a friend of Molly's, confirmed that they had been aware that their mothers used cannabis *"from a pretty young age, like say about 9."* Heath (10) Renee's youngest child, confirmed that he had developed an awareness of his mother's cannabis use at a much earlier age than Molly, stating, *"I basically caught on that mum was doing it by about 6 ½, like 3 ½ years ago."*

5.1.5 I always knew

Mike (50) said that his children would have seen him use cannabis *"at parties and barbecues and things over the years,"* but he thought that they would not have understood what it was at the time. *"Of course, they didn't know anything about it but people were smoking it in front of them."*

He described children's awareness as being *"a slow transition to adulthood and understanding what is going on."*

I don't think there was a time when I found out that dad did it, I think I pretty much always knew... I don't think I was really surprised when I found out. Because this guy down the road, sometimes he would come over and I got the idea that they were getting high or something. I was really young, 10 or something and I just thought that they were doing adult stuff.
Lindsay (18) Family 4

Mike's son, Alec (20) explained that *"as long as I can remember I have been aware of it"* recalling that his dad *"used to have a garden round the side and he called it the secret garden, I've always remembered that."* Mike (50) confirmed that *"when the kids were younger, [he] had a secret garden"* in which he grew cannabis plants for his own use. As the children got a little older, he recalled that one of them wanted to know, *"What is in your secret garden, dad?"* He said *"they started to look out there"* and so he stopped growing his own cannabis at that point. Lindsay (18) also spoke of her father's secret garden. She said that she *"always knew that our parents were not straight edged when they were in their youth"* and said that she *"like[d] to hear stories about how they were rebellious and stuff."*

5.2 Conversations about drug use

This sub-theme specifically addressed communication within families about the use of drugs by parents or by their children. In some families, there had been some specific discussion about the parent's use of cannabis, including the need for the child to keep this secret. In other families there was no discussion about the parent's use of cannabis even though children were apparently aware of it. This sub-theme included advice about drug use given by parents to the young people in the family, including the provision of drug education as a harm reduction strategy, and looked at the willingness of young people to take on board advice about using drugs from their parents. Parental advice was often at odds with their demonstrated behaviour, therefore, the notion of hypocrisy frequently arose. Seven minor themes emerged: 1) Keeping the secret; 2) Absence of discussion; 3) Talking about parental use; 4) Parental advice; 5) Mixed messages; 6) Drug education; and 7) Attitude to parental advice.

5.2.1 Keeping the secret

In some families, parents deliberately sat their children down and discussed the need to keep their parent's use of cannabis a secret.

I say to my daughter, "I don't want you to tell anyone. It is family business. It is my thing and it is not legal." I try and justify it. I don't drink so I come home from work and have

a smoke, but I don't want her friends' families to know. I have always said to her, "it is not good that mum smokes, so don't tell anyone." I have done that to her ever since she was a little kid and she has never really said anything to anyone. Lynette (37) Family 7

We also knew that it wasn't accepted in the community. So it wasn't something that we were allowed to talk to our friends about even though I suppose a lot of our friends also had parents that would have smoked cannabis anyway. So it was just something that we didn't discuss with other people but my parents' friends were also users and it wasn't really a big deal. Lisa (25) Family 6

Other children didn't seem to need to be told. Sally (56) said, *"I never said 'don't say anything about it to anybody' I just think they just knew [not to]."* Alec (20) explained that *"I kind of knew that it wasn't really normal for a parent and I didn't tell any of my friends about it in primary school and I think I kind of thought it was a bit unusual but now I don't think it is."*

5.2.2 Absence of discussion

In many families even though children were aware of their parent's use of cannabis it was not actually spoken of. Renee (47) said *"I have never actually hidden it from them but I never educated them. I have never actually sat them down and said this is what it was until the child comes to me."* When asked if any of her five children had raised the topic, Renee said, *"Not raised it, it is sort of acknowledged. It is almost like osmosis."* In other words, Renee was suggesting that for the children there seemed to be a gradual assimilation and processing of ideas related to their mother's use of cannabis, rather than there being any specific occasion where this was discussed at any length. Molly (19) the eldest child of Renee, said that she and her siblings *"were told it was illegal and that some people don't like it, so we kept quiet about it at school."* She explained that as *"it was never causing trouble or harm in [the] family"* there had been *"no reason to talk about it."* Heath (10) the youngest child in the family had been aware of his mother's cannabis use for over 3 years and although he didn't like her doing it, he said, *"I don't ask her about it or anything."* Similarly, Mike (51) also said that the topic of his cannabis use was rarely, if ever, discussed despite the fact that as a family they tended to talk about most things quite openly. His 18-year-old daughter, Lindsay, said that when she was younger she was embarrassed about her father's cannabis use and it was not something that she had wanted to talk about.

They know I smoke and I don't think they are that fussed about it but we don't discuss it because it is not a big issue but that is because I have kept wraps on it and kept it covered up. So, it is not a big issue but it is kind of taboo in the family to talk about it really. Everyone knows, but no-one says anything. Mike (51) Family 4

At first when my friends started coming over [and dad was smoking cannabis], I kind of just wanted to be a normal family. I was a bit embarrassed about it at first, but yeah, it

took a few times, I just used to be “oh, move along”, and not [want to] talk about it [but] I don’t think that it should be a taboo topic really. Lindsay (18) Family 4

Jeff (12) was also aware of his father’s cannabis use but had no desire to talk about it with his dad or with anyone else, including the researcher, as the exchange below demonstrates.

[So it is not something you have ever sat down and talked about?] No. [Would you have wanted to have a conversation or talk about it?] Not really. [You just like to figure things out for yourself?] Yeah. [If you were worried about it would you talk to him do you think?] Maybe. Yeah. [So it hasn’t really worried you?] Not really. Jeff (12) Family 5

Some children, like Jeff (12) and Hope (11), were not willing to acknowledge to the researcher that their mother used cannabis despite being given explicit permission by their mother to do so.

In many cases it was reported that there had been no need to talk about a family member’s use of cannabis because it had not caused any problems that warranted the need for discussion. Linda (50) had always smoked cannabis, whereas her partner did not do so. Linda said, *“I don’t hide it from him and he never, ever comments on it.* Paul (54) confirmed that despite being together for over 10 years, *“We have never really talked about it in any great depth. It is not really an issue so we don’t discuss it very much. It is just not an issue.”* Linda’s daughter, Heather (20) said, *“I always knew but there was never any confrontation about it. I just figured mum did what she wanted to do, and it wasn’t affecting me.”* Hence, in some families the use of cannabis was just a peripheral event that, although acknowledged, was rarely, if ever, discussed at any length.

5.2.3 Talking about parental use

When the matter was raised, it was usually related to small incidents, such as the child’s discovery of cannabis-related paraphernalia (e.g., smoking implements) or the smell, rather than being a consequence of the child’s sudden realisation or discovery of parental cannabis use. Jeff was 12 and his parents both had conversations with him prior to him being interviewed for the current research; apart from that, their cannabis use, although not hidden, had rarely been discussed.

[We have talked about] incidental things. He found a little plastic bag from cannabis on the couch and he said, “Aha!” It was empty; it probably had a crumb or two in it. He held it up and went, “what is this, dad?” And I went, “I don’t know Jeff. I think it is a plastic bag. Is there anything in it, Jeff?” He went, “well there is a tiny bit of green tobacco” with this sort of knowing look. I think I just laughed and he said, “I think it is marijuana” and the windows were open and with next door [being a police officer] and stuff, at that point I just said “look you are right and I am not ashamed of it or anything but it is illegal and our next door neighbour, I don’t want to put her in the position of having to do on

her neighbour. So, on little occasions like that [we have spoken of it]. Yeah. I also told him that we were going to talk to you about it and I said exactly that, if he doesn't want to talk about it he doesn't have to, don't feel under any pressure and if he wants to, he can say whatever he wants.

Aaron (49) Family 5

I am happy for him to listen because then he learns more about it. I told him last night, I said, "Kath is coming over tomorrow and she is going to talk to me about marijuana," and he said, "What? You smoke it too?" And I said, "Yes, I was just about to have a cone right now, in fact, half the time I smoke it, even if I am walking down the street, you won't leave my side"

Colette (36) Family 5

Jeff did not identify his mother as a cannabis user, despite being provided with several opportunities to do so. Jeff was clearly processing the fact that his mother used cannabis because he was aware that she was using cannabis "to get off other drugs" and he was the only child participant who identified this as a reason why some people might use cannabis. Jeff also minimised his father's use of cannabis by informing me that "my dad doesn't smoke marijuana very often because I think it is green and usually when he smokes I see a deep dark brown stuff that you buy from the shops."

Lynette admitted to smoking large quantities of cannabis and said that she and her 13-year-old daughter "talk[ed] about it all the time."

We talk about it all the time. Not all the time! But we do. She brings it up and then I bring it up. It is a little bit of an issue now because lots of kids her age are smoking now and she hates it, which is good.

Lynette (37) Family 7

Madalyn (34) informed me that she had specifically sat down with her daughters when they were aged 12 and 10 to discuss her cannabis use because they had asked her outright if she was using marijuana.

I think it was about 3 years ago when I had a partner that was smoking as well. They became a little bit more nosy about it and they were saying something about "are you smoking marijuana?" so I had to sit down and talk to them and say "look this is an illegal drug but I kind of feel that alcohol is a lot worse, I don't take any other drugs. I am not using needles, I wouldn't use heroin ever; there is a limit to what I would do." They asked me why I started and I explained that it was something that I just grew up with."

Madalyn (34) Family 11

The girls were told not to talk to other people about their parents using cannabis, including their brother who was only 5 at the time, and at this point Madalyn began cutting down on her use of cannabis, which she eventually stopped using altogether.

I had to explain to them ... to be careful about what they said, and not to say anything to Oliver because he was too young to understand what was going on. And that is when things twigged [for them] about the bong that they had seen and my sister's bucket set up, it stank, and I said, "they are just different ways of smoking it but I prefer to not do"

that. This is my way of doing it [in joints] and so that is what I do” and they were like, “okay, so does it make you a drug addict?” and I said to them that “by society’s ideals I am deemed a drug user, yeah, the difference is that if I want to stop, it is not to the point where I am going to lose control of every facet of my life and need to take myself out of my life to get that out of my life. The more I can cut down my use, the better a chance I have of giving it up, so I went from having maybe 3 joints a night to bring myself down from the day.. I had thought about it but I had never really had that prod to really think about it further than just doing it for myself and I realised that the more accepted it was in the home, the more likely it was that they would go down that path themselves and I didn’t want that for them.

Madalyn (34) Family 11

5.2.4 Parental advice

Parents who used cannabis were asked what advice they would give to younger family members if they were found to be using cannabis. Despite their own use of cannabis, without exception, parents did not want their children to use cannabis, although they often commented that they would prefer that their adult children used cannabis rather than alcohol or other drugs. Lynette was a heavy user of cannabis and told me that even though cannabis was not as bad as other drugs, she always told young people to stay away from it altogether.

“Don’t bother trying it, if you are going to try it.” I say to kids “don’t try it because you might as well say that you are going to use it for the rest of your life!” Especially if it is the harder drugs; pot is different but I don’t want them to even bother.

Lynette (37) Family 7

Others were keen to emphasise that it would hold them back, just the same as misuse of any other drug would, including alcohol.

I’d tell her that it held me back for a long time; that it’s the reason I am 37 and I haven’t finished uni yet, I used to smoke weed all the time. I’d have to get on my little soapbox a bit and say that you shouldn’t make any moral judgements based on the law. In my mind, abuse of dope and abuse of alcohol are exactly the same.

Mark (32) Family 2

Parents were realistic in recognising that many young people would “experiment” with cannabis at some stage and they emphasised that initiation into cannabis use should be delayed for as long as possible.

I would tell them to wait until they have grown brains. Wait until you are 17 or 18 years old and your brain has developed before you start to play around with that sort of stuff. If you start smoking dope at 15 years old, and you smoke heavy, you will be a deadshit by 20 because your brain has not developed, it hasn’t fully grown yet. Yeah, that would be my advice to them anyway because you can’t tell them not to do it. Yeah, tell them just to wait; you will get there in the end.

Anthony (36) Family 3

On the one hand, most parents felt that given their own cannabis use, they would be unlikely to come down too hard on discovering the use of cannabis by a younger family member. On the other hand, they didn't actually condone or encourage their children to use cannabis.

One thing I wouldn't do, I wouldn't come down with fire and brimstone and preach the virtue of what you should be doing in that instance because then that would be hypocritical once he gets to that stage. I think there would actually come a time when it comes out in the open and I would tell them how I have managed it. I think I have been pretty successful at it. To have a habit like that for so long and to not have any sort of major effects from it, emotionally, physically, and mentally, and relationship wise. So, yeah, I think I would try and work with him and try to... But what if it goes wrong, what if he says, "well so you don't mind if I smoke then, dad? Because obviously it can be managed, it is not that bad, you do it." How would you respond to that? Yeah, I'd say, "it is now up to you to see if you can manage it."

Trevor (45) Family 10

Some parents said they would rather that their child obtained cannabis from them than from a stranger, and that they would prefer any cannabis initiation to occur in the safety of the home, with parental supervision and availability in the case that it does not agree with the young person.

I would say "Fair enough, if you want to try it, [but] you don't go getting it from someone else, you ask me and I will get it from somewhere that is safe because you don't know if it has been laced with all sorts of stuff out on the streets." I would be really worried about them getting something laced with rock or ice and having it at a party with someone that they don't know. I think maybe because they are girls I am that little bit more protective so I would rather them have it here where I can be here for them if they feel sick or they get paranoid or they freak out or whatever. I have been through it, I understand the experience myself but I wouldn't be doing it with them.

Madalyn (34) Family 11

5.2.5 Mixed messages

The notion of parental urgings to not use cannabis being hypocritical for parents who use cannabis was often raised by parents in the current study.

I was actually just thinking when you were talking to me, it will be interesting if she does know given her opinion of me because she is always telling me things like ... "I am not going to be perfect like you" so, if she does know I smoke, ...I sort of wonder the message that she would get from that, it would be quite "well, mum does it and mum is this really strict, prudish, reserved thing therefore it can't be as bad as anyone tells me."

Kelly (44) Family 8

I know my daughter thinks I am a hypocrite. I haven't heard it directly from her but my other son has said, "Well, you are a hypocrite!" and I am saying, "no, hang on a minute, I am not a hypocrite because I am saying the same thing all the time, that it is not that you smoke dope necessarily but if you smoke too much of it you will do yourself harm" and I am not being hypocritical by saying that. That is what I believe. I am not saying, "Don't smoke it." I am saying, "don't smoke too much of it. Don't smoke it every day."

Craig (50) Family 9

He has called us hypocrites and things like that. And we have tried to say that yes we have done these things but there are times and places and things like that and I put my foot down about [using cannabis] in the house. Tracy (46) Family 9

Jodie (13) said that when she found out her parents used drugs:

I just thought they were stupid because the thing is, they tell you never to do [drugs], but it is sort of hard when they are doing it. It is like they are being a hypocrite. You can't tell someone else not to do something if you are doing it. Jodie (13) Family 2

5.2.6 Drug education

Parents, especially if they had used cannabis and other drugs themselves, believed they were in the best position to educate younger family members about the use of drugs. Parents generally agreed that the best way to minimise drug-related harm was for the young person to have accurate non-judgemental information about drug use.

Don't condone it but [tell them] "if you are going to do it I would like to know what you are doing, how you are doing it but I don't recommend it." I don't think it is a good idea but then again if you tell your child not to do something they are going to do it anyway, so you have to have a certain level of tolerance. I would only give her as much information as humanly possible about it because if she is already in that environment she needs to know stuff. Education about how someone can go from casual use to full-time use, to how it can affect your outlook, how it might affect you. Tina (36) Family 2

I told them to make sure that you have precautions and that your friends know that you have done it and you have taken it off someone else that has already used them. I would just let them know the effects it has, like respiratory and that sort of stuff, and the lack of motivation that it can have if they get into it when they are young and they get into smoking a lot of it. I would rather have them use drugs in my house [where] I can see his behaviour rather than out there in that high risk [situation] because when you first experiment you do some silly things with your mates and show off and I would rather it be in the home environment so I can see what is actually happening.

Tamara (33) Family 1

I believe that everyone has got their own nemesis drug, the drug that just doesn't suit them, and marijuana doesn't suit some people. If you try it on your own and it doesn't suit you then [home] is a good place to try it. In fact, I should try to get some E's [ecstasy] for my elder kids to try, just to make sure that they are all right with them, rather than getting to a rave party and finding themselves carted off to hospital because they are allergic to it. That is what we should be doing. I mean that is what the French do with alcohol. They tend to introduce their kids slowly. I haven't done that but I think with children it's important. Mike (51) Family 4

5.2.7 Attitude to parental advice

There was little evidence that children were willing to take advice from their parents about drug use. Paul (54) noted that his stepchildren would "blow [their mother] off, as far as warnings about getting involved in cannabis use or extending further into drug use" and stated

that “it clearly hasn’t had any impact in a desirable way on Chris for sure.” Heather (20) explained that her mother had tried to crack down on her son’s cannabis use when he first starting using it in high school. She blamed their father (who did not live with them at the time) for making it too easy for her brother, Chris, to get heavily involved with drugs from a young age.

Dad kind of put it all out there on a platter for him. Even with his weed smoking I think mum would have controlled that more as well. She would have put her foot down. She was trying to do that but that was when Chris decided that he just wasn’t going to come over here then.
Heather (20) Family 1

Heather also informed me that despite admonishing Heather’s boyfriend not to drive after using cannabis, they had taken no notice and did not believe that it was a problem.

An ex-boyfriend of mine used to come over and he used to smoke a lot of weed and we would drive somewhere, and mum always thought it was really bad. You do slow down a little bit when you have been smoking weed whereas he thought that when he was on weed it made him more alert and he was a better driver. He and mum used to have arguments about it all the time. She was like, ‘no, you can’t drive’ but he never listened.
Heather (20) Family 1

Heather explained that although her mother knew that she used cannabis and alcohol, she had not disclosed her use of other drugs, such as methamphetamine and cocaine, to her mother because she knew that her mother would disapprove.

It’s your mum; I can still talk to her about it and stuff and tell her when I have done stuff but I know she doesn’t really look highly upon other kinds of drugs and she always has an opinion on it, which is usually a bad opinion, so I tend to keep that stuff a bit more hidden.
Heather (20) Family 1

5.3 Other information

This final sub-theme relating to communication was about other sources of cannabis-related information. It included four minor themes: 1) Media; 2) Health Department; 3) School; and 4) Drug knowledge.

5.3.1 Media

Many parents expressed ideas related to the portrayal of cannabis use by the media, particularly through television commercials. Mike (51) said that his mother had, at one stage, been very upset about his use of cannabis and he said her concern was caused by advertising in the UK that was related to the idea that cannabis use leads to the use of other, more dangerous, illegal drugs.

My mum ... was absolutely certain that I was, for 2 days, she was saying, “Mike, you are going to become a heroin addict.” That is harm associated with propaganda. That is

just pure propaganda! If you tell people the same thing often enough eventually they will believe it. That is what happened to me. Oh, there is not that much anti-marijuana [advertising here in Australia] but there has been a little bit. There was a lot in the eighties in England anyway.

Mike (51) Family 4

Mike's 18-year-old daughter said that prior to personally using cannabis, she had been quite worried about her father's cannabis use.

I used to worry quite a bit but then, like I said, I started smoking and I realised that you are not going to die. I know so many people who are doing it and they are perfectly healthy and normal and stuff. [So that counteracts some of the other messages that you get, like it is a drug, it is bad]. Yeah, personal experience; I mean dad would always be "you can't believe what you read in the newspaper. Propaganda!" I mean to a degree I think you should be critical about things that you read in the newspaper [but] if you read so many different studies you can make your own conclusion.

Lindsay (18) Family 4

Jeff, who was 12, said that he thought that smoking cannabis was a lot like smoking tobacco. He said, "It is sort of the same and it is sort of different at the same time." When asked to elaborate, he informed me that "they are both drugs [and] they both do harmful damage to you, like emphysema; that is on the TV." Hence, for Jeff, the television had been his main source of information about cannabis.

Craig (50) agreed that by over stating the dangers of cannabis use, the older generation and the authorities took the risk that young people would also fail to take any notice of warnings about other, possibly more dangerous, illegal drugs.

The other thing that, to me, it is a bit dangerous is that young people [can] get an impression that the older generation are total hypocrites because they have been told, "it is bad! It is bad and it is dangerous" and "don't touch that, kids!" and they go and try it and they go "oh, it is not that bad, what are they on about? They don't know what they are talking about" and so any further advice from the older generation is nonsense because they haven't been truthful in the first place. I don't profess to know anything more than just my own experiences but I know you can only be talking about it like that if you have no idea what you are talking about.

Craig (50) Family 9

5.3.2 Health Department

Mike (51) viewed Health Department material and associated campaigns against drugs as propaganda; he argued that the government's use of certain advertising tactics was not useful.

I don't think these adverts work. I think they have lost it. I think the government, because they have handed over public information to advertising agents, what has happened is that they are using the same tactics as washing powder companies use, like Omo washes whiter than white. Okay, we all know that it doesn't really wash whiter than white. We are prepared to accept it but we don't really believe it. So now when the government starts using similar tactics like disinformation, like with the bar graph on cigarettes that says that smoking is a leading cause of death. It has got car accidents and alcohol and it

has got cigarettes [on the graph] but of course, they have left out obesity. So they just happened to leave out the biggest bar, which is why it says “a” leading cause of death instead of “the” leading cause of death. See, that is misinformation and of course a lot of people have realised that it is a bit like “washes white as white.” Yeah, it is not really true; it is just an advertising path and so people become less and less influenced by government advertising until it all becomes totally useless. Some people will believe it, I suppose. I don’t because I am very critical of it but to me I feel less and less confident that what I see in a government ad is true. ... Mike (51) Family 4

When offered an information pack containing mostly Health Department material about cannabis use, Mike laughed and refused, stating, “I don’t want any propaganda. The propaganda that is out there in the community is staggering.” Mike’s children aged 18 and 20 accepted the material, although Alec (20) emphasised that the most important thing to know was how it affected you personally.

Yeah, I’d like to have a look at that. I think it will be really interesting to see what they say, but I am not going to believe anything necessarily. I mean, perhaps I will. Regardless of what the research says, I know how it affects me and that is the only thing that matters to me. Although it will be interesting to learn some of the literature about what it does, although I guess the problem with that is that “is it objective?” Alec (20) Family 4

5.3.3 School

Participant children who were still attending school were keen to accept the pack of information pertaining to cannabis use. Jeff (12) said that he had very little drug education at school, stating, “I think they brought it up a few times but otherwise no, not really.” When children received drug education at school and realised that their parent was using an illegal drug, this sometimes led children to worry about a behaviour (cannabis use) that had not bothered them in the past.

It bothered my sister big time. It still bothers her now; she has never really accepted it and she was younger when she first found out [that dad was smoking cannabis]. Probably just because when you learn about it at school, they drill into you that this is an illegal drug and ‘don’t do this!’ and dad has been doing it. Liam (20) Family 8

There was never an issue with my children as far as I was concerned until they went to high school and then they go “oh, they are talking about ... oh, that is what my mum does all the time.” And all of a sudden they look at it differently whereas before it never really worried them too much. Sally (56) Family 12

Upon realising that their parent was doing something illegal, children intuitively or protectively also realised that it was best not to disclose their parent’s use of cannabis.

As my oldest daughter said, “Mum, you know that green tobacco you used to smoke? It is not ‘green’ is it, its ‘marijuana’?” And I went, “yes, dear.” She asked. She was about 10. I said, “So where have you got this from?” and she said, “Oh there was a talk at

school on it” and I went “ok.” and I didn’t even ask but she went, “Don’t worry, I didn’t tell anyone.” And I was “well, good, because it is illegal.” And she went, “yes, I found that out” and that was it.

Renee (47) Family 13

I remember once, I picked her up from high school and she said “we had a survey about drugs today dad and they said ‘do your parent’s smoke?’ and I said no. ”I said, “yes, good on you, girl.”

Mike (51) Family 4

5.3.4 Drug knowledge

Despite having parents who used cannabis, as well as, in some case, at least some exposure to drug education at school, children’s general knowledge about cannabis was very limited. Jeff, who was 12, was not the only participant child who believed that cannabis use could lead to death.

[It is] a drug; something that could kill, yeah, if they smoke it too often. ... I think it is just as bad as other drugs, maybe even worse. I think people who smoke it could offer it to someone else who smokes but doesn’t necessarily smoke that and they could take it and get addicted to it as well and so it would keep going on.

Jeff (12) Family 5

Heath, aged 10, agreed with Jeff that using cannabis was “risky” and he also had some misconceptions about using ATS.

[I think people take drugs] because they are depressed or they are unhappy. Sometimes to make them go to sleep and sometimes to make themselves trip out, like in their own little world, like hippies. [For fun?]No, not for fun. Teenagers might do it for fun but that is if they are really stupid teenagers. It sort of sounds fun but it also doesn’t. In a way it sounds really risky and just not very good. [Which part sounds fun?] Well, not so much fun, as interesting, like what it will be like to just see crazy colours and stuff like that because apparently when you take speed you see different sorts of colours.

Heath (10) Family 13

Heath’s sister, who was 11, didn’t acknowledge to the researcher that her mother or siblings had used cannabis. However, she informed me that she had done some reading on the subject. When asked what she thought happens to people when they use cannabis she informed me that:

Well the body goes into a relaxed state [in] which the brain relaxes and they can sometimes see things or they just go completely whacko and they can’t really remember much, like [with] alcohol when you get drunk, yeah. Complete and utter weirdos use it. There are chemicals in it that make people go “wow!” [How do you know that?] Well, I read. I devour books [What have you learned about marijuana?] Well it is a plant coming from some place in the south-pacific or India, I think the Indians used to use it for tobacco. And complete and utter weirdos use it.

Hope (11) Family 13

Hence, younger children knew little about cannabis and the effect of school-based drug education was to cause them to worry about their parents in a way that they had perhaps not done before they came to the full realisation that their parent was smoking an illegal drug.

Summary.

For children there was usually a gradual assimilation and processing of ideas related to their parent's use of cannabis as opposed to a specific moment of discovery. Children tended to be aware of their parent's cannabis use from a younger age than parents realised and many claimed to have always known about it, although they didn't fully comprehend that their parent was using an illegal drug until they were older. Some parents purposely sat their children down and discussed the need to keep the parent's use of cannabis a secret, although upon learning that cannabis was an illegal drug, children often independently worked out that it was best not to talk about their parent's use of cannabis. In most families there was little or no discussion regarding the parent's use of cannabis, even in families that usually talked about most things quite openly and despite children being clearly aware of their parent's cannabis use. Parental use of cannabis was a topic that children generally said they did not want to talk about with their parent and despite having their parent's explicit permission, some children refused to acknowledge to the researcher that their parent used cannabis. In one family, respondents suggested that there had been no reason to talk about a family member's use of cannabis because it had not caused any problems.

Despite their own use of cannabis, without exception, parents did not want their children to use cannabis. Parents recognised that young people would probably experiment with cannabis at some stage and they emphasised that initiation into cannabis use should be delayed for as long as possible. Parents felt that it would be difficult to implement harsh consequences on discovering the use of cannabis by a younger family member; nonetheless, they did not condone or encourage their cannabis use. Some parents said they would rather their child obtained cannabis from them than from a stranger and would prefer that cannabis initiation occurred in the safety of the family home. As parental advice was often at odds with his or her demonstrated behaviour, the notion of hypocrisy frequently arose and there was little evidence that children were willing to take advice from their parents about drug use.

Parents argued that the best way to minimise drug-related harm was for the young person to have accurate non-judgemental information and parents believed that they were in the best position to educate younger family members about drugs. Many parents were concerned that the media and health authorities over-stated the dangers of cannabis use and they were concerned that this might cause young people to disregard safety messages about the risks associated with other, arguably more dangerous, illegal drugs. In some cases, young people confirmed that after

personally using cannabis they, in fact, did question the risks purportedly associated with other illegal drugs, including ATS. When children received drug education at school, this frequently led them to worry about their parent's use of cannabis when it had not bothered them before. Younger children's general knowledge about cannabis was very limited with those aged between 8 and 12 years (n=4) often believing that cannabis use could cause death.

Theme 6. Parenting

This theme drew on data already inherent in the earlier themes but focused in on the issue of whether the parent's long-term use of cannabis had affected their ability to provide effective and consistent parenting of their children. Parental perceptions were compared with the view of partners and children to determine whether the parent's use of cannabis was managed in a way that minimised any harm to their children. Descriptions of family members and their lifestyles provided additional data that pointed to outcomes in the family. Four sub-themes emerged: (1) Positive effects; (2) Adverse effects; (3) Outcomes; and (4) Boundaries.

6.1 Positive effects

Some parents argued that cannabis had no impact or a positive impact on their parenting and two minor themes were developed: 1) Beneficial; and 2) Playful.

6.1.1 Beneficial

The majority of parents who were using cannabis argued that it had no detrimental effect on their parenting and, in some cases said that it helped them to be a better parent. For example, Craig (50) thought that he might *"have ended up drinking too much if it wasn't for marijuana."* Mike said it helped him to relax, which, in turn, made him a better parent.

No. I think for me it has helped me. I am not as neurotic. I don't snap at them [and] that was always a part of my personality because I am not a very relaxed sort of person. I would say that, if anything, it has enhanced the nature of my relationship with my kids, my duties and my interactions with them. I am a bit more relaxed. Mike (51) Family 4

6.1.2 Playful

Mark said that being stoned sometimes meant that he would play with the kids more than was usual, although at other times using cannabis would have the opposite effect.

I suppose if anything it just makes you a bit more silly and playful at times. Say if the kids want to go and play on the trampoline, if I'm not stoned, I am a bit uptight, it's like "sorry kids I've got to do this or I have got to do that" whereas if I am stoned I say, "fuck the jobs. I'll go outside in the sun and play with the kids on the trampoline" but then at other times you just can't be arsed. It is too hard. Mark (32) Family 2

Linda noted that her children would sometimes pick up on her happy mood following cannabis consumption and said that they would take advantage of that mood to engage her in play.

I know the kids would clock onto me sometimes when they were younger and they'd know I was just in a slightly different mood and they'd take absolute advantage of that and they would make you laugh and giggle and that, poke you, and yeah; They just knew there was something just different. They'd just pick up on that mood and they'd just be ultra-silly and make you laugh and stuff. Because that's what kids like, to see their parents laugh and not be miserable. They didn't know that you'd had a smoke but just sensed the mood, that it was different.

Linda (50) Family 1

6.2 Adverse effects

This sub-theme included data from nine minor themes: 1) Overly agreeable; 2) Discipline; 3) Financial impact; 4) Transporting children; 5) Housework; 6) Emotionally unavailable; 7) Guilt; 8) School; and 9) Benefits after quitting.

6.2.1 Overly agreeable

Children who were aware of their parent's cannabis use soon realised that it would make their parent more agreeable and often took advantage of this fact. Jenni (27) said, "*I just recognised that the parents would get funny at night and if I wanted to ask for something I would ask for it after they have had a smoke.*" Piper recalled that from about the age of 9, her sister had taught her to make requests of their mother when she had been using cannabis as they were more likely to get what they wanted when she was stoned.

I always remember me and Jenni if we had something like a favour to get from mum or something, we would always be 'okay, just wait maybe an hour, wait until she has had a joint' and then we would ask her. We used to always get what we wanted but if you asked her beforehand, no!

Piper (20) Family 12

At the age of 10, Heath had also discovered that when his mother had been using cannabis "*it causes her to agree to nearly everything.*" Rowena (21) had also "*cottoned on to that quite quickly*" and had found that if she wanted to do something that her mother might not permit, she could just wait until she was at her dad's house and organise to do it from there.

In a similar fashion, Mark found it easier to avoid arguments with his wife when he had been smoking cannabis.

I could be stoned and Tina could be going off about something and I just won't buy into it. I'll just be like "whatever," and she'll just yell, and I'll just sit back and it will bounce off me, and I won't buy into it. I'll just sort of go "whatever, honey" with a cheesy grin on my face and if she keeps yelling, I just get in my car and go for a drive until she calms down. There is no point buying into it but that is definitely another plus point about dope actually. Sometimes it does give you the ability to turn the other cheek. Only if I am

already stoned but not if I get angry first, no, then a cone won't be helpful but if I am already stoned and she comes in and yells at me. I am like "okay," and it is just in one ear and out the other.
Mark (32) Family 2

6.2.2 Discipline

Clifford had observed that his mother handled arguments amongst the children differently depending on whether she was stoned or not.

I guess it does affect parenting and how we were brought up in the sense of how often it was and how mum might react to certain situations. Like if there was an argument between us, me and my sister, the reaction would be very different than if she was sober. Either it is a bit of an overreaction on her part, she shouts at us and we calm down or go off or it is just that she accepts what has happened, stops it from happening, and then tries to make sure it won't happen again, that is when you know she is a bit stoned. When she is normal then it is pretty much the stereotypical reaction, just the reaction of 'why are you fighting?', sorting it out, doling out punishments for the ones that were in the wrong or talking to one of us or that sort of things.
Clifford (17) Family 13

Tess initially stated that using cannabis didn't really affect her parenting but went on to explain that she got more frustrated with her young son when she didn't have any cannabis and admitted that when she was stoned, she was more tolerant of his behaviour.

I don't think it actually affects me in terms of taking care of Ryan. I think that if anything say if I am feeling a bit frustrated and he is being a little bit trying, a 2-year-old, pushing on my patience, if I have a smoke it makes it a lot easier for me to deal with it. I just let all the stuff that would usually get me frustrated or angry go straight over my head whereas because of my upbringing [I would normally be saying] "that was so rude" and "you didn't do that and if you did that you got into really big trouble, you don't disrespect your parents".
Tess (34) Family 12

6.2.3 Financial impact

As discussed within Theme 2 (Harms) in some families the use of cannabis had financial implications. Some children reported missing out on things, such as dancing and trumpet lessons, and were annoyed about this in the context of knowing that their parent was spending money on cannabis at the time.

It caused a bit of financial problems. I was only working part-time and ... he wasn't really on a great wage and going through about an ounce of pot a fortnight, which was probably \$150 - \$180 back then. ... The girls were doing dancing and the dancing bill got quite high because I couldn't afford to pay it. Because I was trying to please him, I wouldn't tell him about bills that were due because I knew he wanted a smoke. ... But things just kind of escalated.
Carol (50) Family 5

I notice how different our childhoods were compared with more advantaged families. I think my dad had a lot to do with that, with what his money went on. He was the breadwinner so it was his decision what money was going to go on what. Things like

dancing and stuff we were interested in weren't important to him. My dad's spending habits weren't healthy, like cannabis and alcohol. I don't think he was very responsible with money.
Rachel (22) Family 5

6.2.4 Transporting children

Linda (50) also noted that being stoned would impact on the ability to operate a motor vehicle safely, saying, *"If there was an emergency you'd be buggered. You wouldn't be able to jump in the car. I won't drive and smoke. It does impair your driving."*

I get home before the kids usually but I obviously have to be careful about driving. So I do it less and less now when I have got the kids because often they will say they have to be dropped off somewhere.
Mike (51) Family 4

Lisa was aware that her mother had driven she and her sister to and from school and other places despite her daily use of cannabis at the time.

One issue that I do have is that if you are going to be stoned, driving your kids to school is probably not a very good idea! I would think that reaction times and things are probably not going to be as [sharp] but other than that I don't really know. I think for myself that I wouldn't be driving kids if I had been smoking cannabis.
Lisa (25) Family 6

Lisa's mother argued that she had not driven far and that she had driven slowly and carefully despite her cannabis use. Other parents made similar statements.

It was not far. I go slow when I have had a smoke and I am driving; I go very slow. I think I am doing 60 and I am doing 40 and I think, "Oh, my God, I had better speed up!" It just slows right down
Carol (50) Family 5

Driving [after smoking cannabis] doesn't worry me too much. I don't think you should do it the second after you have just smoked or something. Within 5 minutes or so it is not a good idea but then there is no doubt that I have done it a little while after that and I think it's also very safe.
Phillip (46) Family 8

6.2.5 Housework

Housework was another aspect of parenting that was sometimes neglected by parents who used cannabis. Molly (19) noted that, *"If [mum] is on her own and she is smoking weed, I find that she doesn't really do much [housework]."* Most parents agreed that using cannabis was not a good idea if they had housework or other tasks that needed to be done.

I just don't handle it well and I don't get the chores done that need to be done, and I tend to skip things ... When you are stoned you just lack the motivation to get up and do the dishes and do the washing. It's not difficult [and] you want to do it, you don't normally have to force yourself to do these things, whereas if I am stoned everything's just an effort. That's why I don't like getting stoned unless I have got nothing on my plate. It's too much of a drag otherwise. Yeah, if I have a couple of cones; its 4 or 5 hours before I am back on top of shit properly. ... It is all the day to day shit that you say "oh, fuck it, I'll

do it later,” and the next day there is just twice as much shit there to do. And after a while I started to associate that with smoking weed. Mark (32) Family 2

[Since stopping] their hygiene has even improved [and] the house is more organised. I now realise that when I smoke marijuana it makes me not as ‘with it’ and I have five kids, so I have to be ‘with it’. So if I smoked all day my house would fall to pieces. My routine would fall to pieces. Tina (36) Family 2

Mark, on the other hand, found that using cannabis after work re-energised him and made it easier for him to get on with the evening tasks, such as cooking dinner.

I kind of find that it re-energises me. If I have been really tired, it kind of re-energises me and I can get into the washing up or clear and tidy up and get cooking and so in some respects I do find that it helps me in some ways to get me re-energised and get moving after a hard day’s work. Mike (51) Family 4

Hence, although many individuals reported feeling lazy and unmotivated after using cannabis, others claimed that it re-energised them and helped them get on with the mundane household tasks that need to be completed on a daily basis, such as preparing meals.

6.2.6 Emotionally unavailable

Tina noted that using cannabis affected her emotional availability through a number of mechanisms, including preoccupation with obtaining and using the drug.

The pot was bad because you spend so much time where you don’t think about [the kids]. [You are] preoccupied with trying to get the drug, getting away from the kids to smoke the drug. It is the same with cigarettes. ... You become distant and even when you come in you don’t want to give them a hug or anything because you smell like you have been smoking and you can smell it, it stinks, I hate it. ... I don’t like ... just the ‘absence’. It affected me being present for my kids Tina (36) Family 2

Jenni also believed that her parents’ use of drugs had influenced their ability to be emotionally present and to deal effectively with painful issues that arose in the family.

I definitely would love, because my dad smokes as well, it would have been great if both of them could have been a little more present at times and not hiding behind those smoke screens so much. Yeah, because it is hard as a kid to see your parents hide behind something and to intuitively learn how to put up those walls to hide behind. You don’t learn how to actually deal with things in a balanced way. Jenni (27) Family 12

Jenni’s older sister, Tess, also acknowledged that their mother had sometimes been emotionally unavailable although at the time she did not realise that it was related to cannabis use. Tess argued that, unlike other illegal drugs, cannabis users tended not to lose their sensitivity and compassion for others. Nonetheless, Tess worried that sometimes she, too, was emotionally unavailable to her young son.

It is not like with other drugs where the love that they feel, the compassion all goes out the door, when you are smoking you become more sensitive to some of that stuff. ... When she got older Jenni used to say, "I hate it when mum smokes" and "she was just never there." I do remember from when I was really young before my mum and step dad got together, I know that she used to sometimes just not be there emotionally, not literally, [and] just some of the time and I think that was when she was a bit stoned. That is sometimes what I panic about with [my son].

Tess (34) Family 12

Colette recalled that when her husband used to smoke a lot of cannabis, she had felt that he was not emotionally available to her. She was beginning to realise that her own use of cannabis was likely to have a similar effect of creating distance between herself and her children, both emotionally, as well as physically by pushing them away when she was smoking.

It was about him constantly smoking; it was taking him away from me. It was taking part of him away from me. It did; it took him away from me. ... I thought Aaron was taking himself away from me. I was jealous of it for a while. I thought, "Gee it has got him more than I have." So, I wonder how the kids would feel with that because we are out there having a smoke and we are like "kids, go inside, go inside." I wonder whether they feel totally left out when we are smoking. Sometimes I think it makes me a better mum, and a more attentive mother, and other times I think it takes me away from them.

Colette (36) Family 5

6.2.7 Guilt

Parents often mentioned that they felt guilty about the money they spent on cannabis.

We have always got money but we don't always have lots, not much discretionary stuff to give. I must admit I feel a bit of guilt about it. Like if he says to me 'can I get a couple of DVDs?' and I have to go 'can't really afford it, mate' and I am thinking 'because I have just bought \$25 worth of pot'.

Aaron (49) Family 5

Parents also reported other reasons for feeling guilty about using cannabis, including setting a bad example to their children, influencing their children's choice to use cannabis, and using when they were pregnant.

It makes me feel like a bad parent. Probably because it is an illegal drug still and there is so much stigma attached to it and taboo and I would hate if my daughter smoked. I feel like a bad parent because I feel like I am doing something wrong but on the other hand, I feel as if I am maybe a little bit of a better parent because I am more mellow. Sometimes I get the guilts that is all. I suppose every parent gets the guilts about all sorts of things. I mean I get the guilts over all sorts of other things as well, not just the pot smoking.

Lynette (37) Family 7

6.2.8 School

Tess and her sisters grew up with a mother who used cannabis on a daily basis. The two older daughters both thought that this had contributed to some of their childhood experiences, such as being late for school and not having as much parental support as they would have liked.

I was always late for school. I was always waiting [after school]. I think I got [mum] in a loose point. It was a loose time because I think dad and her broke up then and there was a lot of stuff going on. I remember I wanted help with homework, I wanted this. It just wasn't right. It does affect people.

Jenni (27) Family 12

She used to sleep in a bit and I would get myself ready for school and walk off to school by myself and I was only six and that is quite young. She used to take me to school sometimes but most of the time I would just walk myself to school and ride my bike to school and sometimes she didn't used to make me lunch. I used to make my own lunch and I used to make disgusting peanut butter sandwiches that I used to throw away. I just remember mum was in bed and I used to get up and get myself to school but it wasn't a long time in my life though.

Tess (34) Family 12

Hence, Tess and Jenni, who were sisters, believed that their mother's use of cannabis had sometimes contributed to her being forgetful, unavailable, and unable to assist them with before school preparations.

6.2.9 Benefits after quitting

A few of the participants had ceased their cannabis use when interviewed; these parents tended to recognise the benefits of having done so. Madalyn (34) had used cannabis in the evenings after the children were in bed as she felt it helped her to get to sleep. Madalyn noted that her children were “*really happy*” that she had given up. Zabina (15) noted that her mother was “*happier, even when bad stuff happens, she still gets happy.*” Amber (13) observed that, “*sometimes she is up later but she gets up earlier in the mornings too. She has got more energy and she likes to read more books to [my little brother] and stuff, yeah, stuff has changed heaps!*”

Tina argued that their parenting was “*completely different*” since she and her husband had stopped smoking cannabis, and she could also see improvements in her children's behaviour.

We have a routine, we have organisation and all of that just falls away when you are smoking dope. The kids still got fed and stuff but we didn't look as closely at their diet. We would use more packaged meals and stuff. Emotionally, physically, practically, we put the children first more than we did before [quitting cannabis]. Now the children aren't in any way exposed to the consequences of drug use, like the parents sitting around stoned. We have a better attitude, we play games now, the kids have improved, and Clare has improved at school. Their hygiene has even improved and the house is more organised. We have got three different schools in the morning to drop them off to so it is a full on proposition. I think when I was younger and only the parent of one child it was possible [to use cannabis] but now it is just like “no!” I realise that I have to give that energy to my children and that it did affect me.

Tina (36) Family 2

6.3 Outcomes

This sub-theme brought together data from seven minor themes: 1) Family descriptions; 2) Distress and anger; 3) Separated families; 4) Education; 5) Extra-curricular activities; 6) No harm

done; and 7) Harm overlooked. It was about perceptions as to whether the parent's cannabis use actually had any detrimental impact on the children or other members of the family or whether parents were able to balance their cannabis use with effective and responsible parenting. Despite the range of harms mentioned above, parents and their children generally indicated that overall their parent's cannabis use had resulted in little harm to the family. Data related to outcomes included parents' descriptions of themselves as parents, and their descriptions of their children, their family life, and their values, including an emphasis on education. Children's descriptions of their cannabis using parent, their family, and their lifestyle, such as involvement in extra-curricular activities, also provided data that attested to outcomes in the family. Many of the families in the current study were blended families and some children talked about their experience of belonging to more than one family. The idea of 'harm overlooked' arose from the researcher's observation that family members sometimes failed to recognise that the parent's use of cannabis might have had negative impacts on offspring or partners despite their views to the contrary. The idea of potential harm going unrecognised was essentially about highlighting discrepancies in family members' stories that suggested a denial of any responsibility for the intergenerational transmission of permissive drug-taking attitudes or other drug-related harm. Additionally, younger children often expressed distress and concern about the use of cannabis by a parent.

6.3.1 Family descriptions

Although some parents acknowledged that there had been various problems in their families, these were not usually related to the parent's use of cannabis, and most respondents thought they had done a 'good enough' job of raising their children. Mike (51) was a high school teacher who believed that respect and the modelling of appropriate behaviours were key elements in effective parenting.

My kids are all out there working hard and they got that from somewhere. Well, my belief is that for families it is all about respect, and trying to model the right behaviour rather than trying to tell them to do certain thing and that has been my philosophy with raising children. I know I sometimes have to tell them what to do but I think it is far more effective to show those behaviours rather than saying. Rather than shouting, "STOP SHOUTING!" just to model quiet behaviour in the family and model respect and caring for others, and talking, to engage children in conversations. ... I think that the secret with kids, with really good families, is respect. If you respect them they will respect others and they will see that "oh, I have to be respectful." Mike (51) Family 4

Mike's children agreed that his use of cannabis had not been detrimental to his parenting.

The thing is that we have a parent who smokes cannabis and I don't feel that it affects his parenting style or ability and I don't even really know when he is smoking. Sometimes

you will see him smoking but in terms of his behaviour, there is no sort of detrimental effects to his parenting skills.
Alec (20) Family 4

I mean apart from the fact that he can't drive me somewhere. It is kind of hard to say if his laid-back attitude to parenting is caused from [cannabis]. I tend to think that it is more [related to] his own personal philosophies...
Lindsay (18) Family 4

Kelly had entered into a relationship with a daily cannabis user despite having strong reservations about people who used cannabis. She argued that Phillip's cannabis use had not been detrimental to his parenting and said that she also thought it had actually helped him to be a better parent by keeping him calm.

I think if anything it has kept him calm enough to be a parent. ... I think in a lot of ways it has allowed him to be calm enough with all the other stuff that went on in his relationship and with his children, I think it actually allowed him to be calm enough to deal with it.
Kelly (44) Family 8

Tess argued that her mother's use of cannabis use had not really been a problem apart from sometimes making her mother a bit tired or forgetful.

The worst she would get is to maybe be a little bit tired the next day. You don't [get] alter mood swings. Maybe you are a bit forgetful. At the end of the day my mum did a good job and so what? She smoked a bit of pot! It could have been a lot worse.
Tess (34) Family 12

Sally (56) had three children and explained that her parenting had improved as she got older and more mature. She noted that she was a far better parent by the time she had her youngest child compared to when she had her first child at 21. Sally believed that she had made poor choices when it came to her partners and that the consequences of such difficult relationships, rather than her cannabis use, had impacted on her parenting to some extent.

I certainly wasn't a perfect mother when I was 21 bringing up Tess. Tess got me more as the dope smoking mum and our situation was very different. I think poor Tess has got a lot of problems from my situation but it wasn't just my drug taking. Her father was a junkie and so we were under the influence of him and he was a lot older than I was ... so I had different issues to deal with. I think that if I didn't have the situations that I was faced with, like if I had [been] able to pick a good father for my children and was not in such a dysfunctional situation ... I think that things would have been so different. I still would have been able to smoke my pot and bring up a healthy family.

Sally (56) Family 12

Sally's eldest daughter, Tess (34) agreed that her mother had not always made the best choices in life but emphasised how much she had, nonetheless, always respected her mother. Tess said that although her sister, Jenni (27), had taken issue with their mother's cannabis use it had never bothered Tess. Tess also emphasised that despite using cannabis, her mother was quite strict and was always aware of what was going on for her children.

I have always respected my mum. I really respected what mum had to say and Jenni has always been a little bit more set in. See I never cared about my mum smoking when I was younger whereas Jenni didn't like it ... When I grew up, my mum was never actually a hippie but she wore beautiful long skirts and she travelled around a lot ... with my dad and they lived in little places and they did what they had to do and my dad did other stuff too, unfortunately. ... My mum was a good mum, I felt like she provided for us really well, that she did the best that she could with the circumstances that she was in. ... I have realised that she went through some really difficult circumstances, and quite frankly, I really feel for her because of the circumstances that she had. I think that as a human being she has handled herself quite impressively with her life and I am very proud of her but I also feel like she made choices that we sometimes all make that really aren't the best choices. ... But yeah she was a good mum. You are never able to pull the wool over mum's eyes. She even caught me wagging and everything, it was so crap. Most parents who didn't smoke were less strict than my mum who did. My mum was a very good mum like that, she was very observant, she just could tell some things, like when I was having a hard time.

Tess (34) Family 12

Sally's middle child, Jenni (27) felt that because both of her parents used cannabis they had not been as emotionally available as she would have liked them to be. Jenny said, *"It would have been great if both of them could have been a little more present at times and not hiding behind those smoke screens so much."* Consistent with Sally's statements about doing a better job of parenting her youngest daughter, Piper (20) described her childhood as *"really amazing."* Piper described a happy childhood, in which she was surrounded by her mum's friends, who she described as *"colourful characters"* that she loved to socialise with. Piper enjoyed being with adult company and felt that it had benefited her in terms of developing a career in the entertainment industry.

I have grown up a really happy child. [I had] a happy childhood! I had so many more good times than bad times. I really have to think hard about when were the bad times. I really have to try and think because the good times really overwhelm everything. [My mum] just made my childhood really amazing. To this day I would never ever give up my family because I think it is a very characteristic family and I just love the path that my mum has led. I love having that depth to me that I have. ... I loved to sit with them because I loved to hear their stories. They would try to get rid of me because they were smoking in the room. I worked out how to get to stay in the room because I would make them all laugh. ... There was always her best friend and they were motherly people that were like second mums. There was always a nice feel around. They always had amazing stories and they would laugh and they were colourful characters and I know that has helped me in my career

Piper (20) Family 12

Carol (50) used cannabis when she was pregnant with her youngest daughter and had smoked cannabis heavily throughout her childrearing years. Carol argued that this didn't seem to have caused any harm to her daughters; they had both undertaken careers in nursing and she was proud of the way they had turned out.

She never had any effects from [in-utero exposure to cannabis]. ... She is bright; she is intelligent; no harm done. My girls both went through school, finished school, did their TEE [tertiary entrance exam], both doing nursing. ... [They are] 25 and 22 [years old] and they are not going to have kids until they are actually in a stable relationship. So it didn't affect the way they were brought up. It depends on the relationship you have got with your kids. I think I did a reasonably good job of bringing them up. Carol (50) Family 6

Tracy (46) worried about the use of cannabis and other illegal drugs by her son and her stepchildren. She was especially disappointed in her only biological child, Martin (22) whom she described as irresponsible.

Those kids were just going to do it [use cannabis] no matter what. ... They have gone down a dark road. I think they got into that amphetamine thing, ice. I would hate to think what else. Martin has certainly suffered from it. He has smashed his car and he has got no money, hit rock bottom. So for me to see that, that is depressing. ... I don't think you can blame it all on pot. He might have been just as irresponsible even if he didn't smoke it. I love him and at times feel disappointed because he is not what you imagined for him. I don't know how you say that without feeling horrible. You want so much for your child. Tracy (46) Family 9

Tracy's husband, Craig, on the other hand, thought the young people in their family were "happy enough" and expressed no worries about their children or how they had been parented. He viewed their use of drugs as a normal stage in their development rather than a major cause for concern. Craig said, "*They are happy and I feel that they will have happy lives.*"

Most of the younger children in the current study described "normal" families, where they were engaged in the usual activities of childhood, such as attending school, doing homework, using the computer, watching television, playing, and reading books.

Well, [my family] is normal and okay. ... The other day I did about 4 hours of chemistry homework in just one full block and then I do half an hour on a few other subjects, so that's homework and I spend a lot of time on the computer. I go on Facebook a bit and I am into technology forums and news updates and stuff like that. I watch a bit of TV, as well but when it comes to weekends I work Saturdays. ... It's good. I am a shop assistant. Sometimes I will be on the registers serving people and other times I will just be cleaning up and doing merchandising. Colin (17) Family 3

Since I am growing up more, I am getting more independent. I like to stay in my room for a while basically. I come here (to mum's) every weekend and on weekdays I live with my dad in these flats. I sometimes play PlayStation, play with my Lego, and go to my friends. I sometimes go outside [but] I usually stay in my room, read books. Yeah, I am sort of a book reader. I think sometimes I am reading about three or four books at once. Jeff (12) Family 5

Some children acknowledged that their family was quite different to most other families. Jodie (13) came from a family in which there had been problematic drug use by her parents at

different times; she described her family as “*very unique*” and noted that they had experienced a lot of “*ups and downs*.” Despite their problems, Jodie spoke very lovingly of her family.

My parents aren't like normal parents. They love each other and they can't get enough of each other but then they get too much of each other and they don't like each other but they love each other. So it is a confusing family really. And we seem to have a halfway house. People just come and live with us and then they leave. I don't get that. In our family, we have got a wide range of personalities; we are not all the same. I don't think we are in any way boring though. I suppose the main difference would be that we have a lot more ups and downs than other families. Like something bad will happen and then the next day something good will happen. Yeah, we are just kind of like a roller coaster. They [mum and stepfather] have words and then 2 minutes later they are sitting together on the couch watching TV. They get frustrated with people who bottle things up, whereas my parents just yell at each other and then give each other a big hug. [Best thing about your family?] The fact that we are completely and utterly different; there is nothing normal about my family. Usually when you say that, it is bad but I like the fact that we are not a normal family. We have a roller coaster but every single one of us is different, and you would think we would merge but it is really good. Jodie (13) Family 2

6.3.2 Distress and anger

Hope, who was 11, also described her family as “*very different*.” Hope came from a single parent family who relied on welfare benefits. There were five children in total, although three had recently left home to live independently. Hope refused to acknowledge to the researcher that her mother used cannabis despite all other family members confirming that Hope was definitely aware of her mother’s cannabis use. Hope complained that her mother didn’t give them pocket money, failed to pack their school lunches, didn’t keep up with the laundry, and let her wear clothes that she thought other mothers probably would not approve of.

We are a pretty outrageous family, very different. There are things... like we don't really get an allowance and our parents don't pack our lunches; mum hardly ever does the washing. ... Usually we have to make our own lunches. We don't know how to [do our own washing] so we just keep nagging mum until she does it. Like, “I need my jeans, can you wash them!” We are a bit loose really, like we are allowed to watch television without having certain times and stuff, [but] most of the time I am glued to a book. And most parents would say “don't wear those clothes there” [points to her brightly coloured pants]. Most parents give their kids packed lunch boxes and you should be getting some money and they should actually do the washing and probably paint the toilet too. Mum doesn't want to do it because it is just work and she must find it boring and tedious.

Hope (11) Family 13

Hope’s mother, Renee (47) had parented through some extremely difficult circumstances and she acknowledged that she had used cannabis to cope with her problems, admitting that she “*was not functioning well in any way or form. I wasn't the worst parent in the world but I most definitely wasn't the best*.” Hope’s other four children were interviewed and although they acknowledged

their mother's cannabis use, they did not express any concerns about her actual parenting. Clifford (17) recalled that he had developed a lot of anger about the use of drugs by both of his parents.

I was very anti-[cannabis] when I was younger because I was really pissed off with my mother and father because I wanted a model mother and father, of course. That is what eventually got me kicked out [of home] basically. My anger towards my family got a little stuffed up and it wasn't their fault because it was just my perception at the time. I think it was the anger that stopped me from doing [drugs myself] because that was like a constant for a very long time.

Clifford (17) Family 13

Clifford had resolved his anger issues through counselling and now believed that his mother's use of cannabis had helped her to cope with a large number of stressors, including domestic violence, discovering that her husband was using heroin, getting divorced, and raising five children by herself with no family support. Although Clifford was no longer angry with his mother, Renee's two youngest children were both worried and angry about her cannabis use.

I would be less worried if mum didn't do it, less sort of stressed and tensed up sometimes. Hope is still miffed about mum doing it. ... When she hasn't done it for a while I am not worried but when she is doing it all the time I get real worried about stuff. Sometimes I get a bit afraid because mum has got 3 pots; she calls them baby plants. Sometimes I feel like setting them on fire. I am scared. I am annoyed and angry basically.

Heath (10) Family 13

Whereas younger children expressed worries about their parent's cannabis use, personal experience and a more sophisticated understanding that came with adolescence seemed to alleviate such worries. Lindsay (18) explained that, "*I used to worry quite a bit. It used to worry me but then I started smoking and I realised that you are not going to die.*" Jodie (13) explained that when she was younger she was removed from her mother's care (due to domestic violence) and had to live with her first stepfather. Later when she was living with her mother again there were occasions when she had discovered cannabis in the house and she told me that this had really upset her at the time because she was worried that she would be removed from her mother's care again. Although Jodie's parents had experienced major problems with their drug use at various times, she explained that the time that she spent in the care of her first stepfather and his wife was the worst time of her life.

[When I found] little things of marijuana I used to run away and [my parents] got very upset and so they started to stop. And I think they started to get off that because every time I found something I would run away and I chucked it in the bin. I thought it would get bad and I would have to go back with Amy and David [first stepfather] and the thing was they wouldn't listen to me. I got really upset and everything.

Jodie (13) Family 2

6.3.3 Separated families

Quite a few of the children and young people in the current study were from blended families and the differences between their father's home and their mother's home was often the first and most significant thing that was mentioned when they were asked to tell the researcher what it was like living in their particular family. Colin (17) and his younger brother were both living with their mother and stepfather when interviewed and Colin explained that they had always had regular contact weekends with their father. At the age of 16 Colin had moved in with his father and stepmother for a while.

Traditionally it has been 2 weekends at mum's [house] and one at dad's because he normally works 2 weeks on and one week off. So it has always been that way but when we were younger it used to be every second weekend. ... Well, I had an argument with my stepdad and basically I said, "I am going to go and stay with dad for a while." So I stayed there for about 6 months and then I came back. It was different [there] because dad still worked away then, so I was basically living with my step mum for the whole time and that was really good but I went from living in a family of four to living in a family of two for most of the time. ... It was really quite different. It is not really two cultures but it sort of is. Two different social groups, it is like crossing over different social groups because dad doesn't see us as often so when we are over there he tends to spoil us, we will go out all the time. We will go out to dinner; we will go out to the movies, whereas here that would be a special treat.

Colin (17) Family 3

As their parents continued to live in close vicinity to one another, Alec (20) and his sister Lindsay (18) lived under a shared-care arrangement when their parents separated. As each parent managed their home and childrearing differently, the children essentially were raised by two individuals with different values who parented and ran their respective homes in different ways.

It is a bit of a split family in the fact that we have two houses and we go so many times there and then equal times here. ... Firstly, it started off as one week, then it moved to 2 weeks for a good couple of years, and now we have just recently moved to 3 weeks and the logic is that the less times you have to move the easier. Once you are here it is all fine but it is just the hassle of moving all your stuff even though Mum's house is only 500 metres away; it is pretty handy. So that is probably the main defining factor [in our family] and there are differences between each house. The way that mum is as a parent is a lot stricter. We have more boundaries there and there are some good things associated with that because she is the kind of person who is a stricter parent but also she likes to have a clean house and to have a well-stocked house. There is always plenty of food and it is always clean but on the bad side we don't have as much freedom to do what we want there. Whereas when we come here dad has a much more laid-back parenting approach. It isn't really even parenting. He just has the roof and the food and we do everything for ourselves pretty much. ... Mum cares too much and is too obsessed about cleaning and dad doesn't care enough, he doesn't care at all about cleaning.

Alec (20) Family 4

Going from dad's house to mum's house, it's very different environments. My mum is a lot stricter and more traditional in her philosophies about "kids should do this, they should do that." Dad [is more about] being responsible for yourself and the community of the household. He has got his own values, which is good. We spend 2 weeks at each house and at dad's house, it's got a better atmosphere but the actual physicalness of the house is messier. Then we go to mum's house and it has got a very pristine environment and there is always good food in the fridge but she has got this more restricted atmosphere but that is pretty much it.

Lindsay (18) Family 4

Some young people took advantage of the fact that their parents had different rules and chose to live with the parent who was more permissive, especially in regard to cannabis use.

When my mum and stepdad split up I used to help myself to my stepdad's [pot] all the time [and] he knew. He would just make little jokes of it, like "oh, someone has been taking little smokes out of here" and "the little mouse has been again" and stuff like that. ... My mum would have killed me but she didn't know. She didn't live there. When I told her she killed me.

Tess (34) Family 12

Linda (50) did not believe that her own (quite discreet) use of cannabis had been influential in the development of her son's problematic drug use and her daughter, Heather (20) also blamed her (non-resident) father for being instrumental in her older brother's drug problems.

No, I think he was making his own discoveries and he would have sought that out from somewhere else anyway, which he obviously did in the end - when he went to live with his dad when he was in year 8.

Linda (50) Family 1

Dad was a lot more lenient [than mum] and the way that [dad] smoked weed was a lot different, so I think Chris would have done that [smoked cannabis] because he could get away with it more and that led onto other things. He started using other drugs because he could and because dad would let him.

Heather (20) Family 1

6.3.4 Education

In terms of protective factors, it was apparent that the parents in the current study acknowledged the importance of their children receiving a good education. Tina (36) valued education highly and despite an income that was below the poverty line, all four of her children plus the child they were fostering at the time, all attended private schools. Tina explained that *"we live on the bones of our arse basically, with five kids all going to private schools. It is costing us a fortune but that is what we value and what we wanted to give them."* Tina's daughter, Jodie (13) also acknowledged that this was the case, stating that *"we don't have much money because mum spends it all on our schooling and stuff. Mum and dad are not the richest people but they send us to good schools."* Oliver (8) was from a single parent family that were also on a low income and explained that his mother had moved him from a public school setting where he was getting bullied. Oliver explained that he went to *"the open learning school up in Maylands"*

[because] at my old school there was a problem with bullies. It just didn't get sorted out [and] it is just better at this school."

Colin (17) talked about how he was in his final year of high school and was preparing for exams and entry to university.

There were about four different courses that I really liked the look of. All of them have to do with health and medicine... I was always good at school. I found it easy and I actually enjoy school. I think it was the fact that I like school that I did okay. Some kids hate it and they really don't want to be there so they don't try. I make friends quite easily but I think it is finding the balance between study and friends that is the hard bit.

Colin (17) Family 3

Lindsay (18) said that she was "studying chemical engineering ... to get a job in the mining industry" and her brother, Alec (20) was undertaking a science degree. There was a sense that education was a priority in these families.

6.3.5 Extra-curricular activities

In addition to their studies, most children talked about their involvement with extra-curricular activities. Jodie (13) explained that "on Tuesday we have [all] got things on, [my sister] has art and I have ballet and I have music the next day." Oliver (8) talked about doing "martial arts ... and circus skills and stuff like that." Others also spoke about their involvement with sport and hobbies.

I go to footy training on Tuesdays and Thursdays. I play [footy] on Sunday. ... Mum drives me, or Anthony, and if it is just the park down here, I walk down. They come and watch me. A couple of times last season mum and Anthony came and watched. This is my third year; I have been playing for quite a while.

Jarrad (14) Family 3

I used to do gymnastics on Wednesdays. ... I liked to do that but I damaged my wrist about 2 months ago so I can't do that anymore. I saved for quite a bit and then I got my computer. I bought all the components for one and built it myself. That was fun.

Colin (17) Family 3

6.3.6 No harm done

In general, most participants reported little or no harm. For example, in family 1 there was agreement by all parties that mother's use of cannabis had not affected her parenting or impacted adversely on the children. Heather believed that knowing about her mother's cannabis use and other drug history allowed them to have a more open relationship.

I just figured mum did what she wanted to do, and it wasn't affecting me. I know mum smokes weed and I can honestly say that it has never affected me, as far as I am concerned. Someone else might say that it has but I don't think it has ever affected me. I

mean, if anything, it just makes our relationship a bit easier, a bit more open; we can talk to each other a bit more. I think mum knows a little bit more about what is going on.

Heather (20) Family 1

Although Heather's older brother had developed drug-related problems, her mother and stepfather were adamant that this was not related to Linda's use of cannabis and her history of teenage drug use.

It is often put forward [that] it is all your fault because you were a drug addict but that is just them using an excuse. ... My perspective on that is no, I don't see any relationship between Linda and the way she has been using [cannabis] and her fact of use either as having any relationship whatsoever to whatever Chris and Heather have got involved in. They have got involved in their own way, independent of anything that Linda was ever connected to. There is literally no person that Linda knows in a social sense, family wise, through me or through herself that connects to Heather's and Chris's indulgences at whatever level they happen to be because there is no relationship there

Paul (54) Family 1

No, I think [my son] was making his own discoveries and he would have sought that out from somewhere else anyway, which he obviously did in the end - when he went to live with his dad when he was in year 8."

Linda (50) Family 1

6.3.7 Harm overlooked

In some cases, the potential for harm associated with cannabis use was perhaps overlooked by cannabis users. For example, Aaron (49) smoked inside the bedroom of the small flat he shared with his 12-year-old son Jeff and Jeff's mother smoked cannabis outdoors when her son was at her side. Although both parents argued that it was inappropriate to expose children to cannabis smoke, Colette (36) believed that Jeff had already developed a tolerance to cannabis. Colette also commented that her 3-year-old son has been exposed to cannabis smoking in that she described him as not having any tolerance and becoming hyperactive when exposed to cannabis smoke.

I honestly try and limit Jeff's exposure to any smoke. I don't think he ever breathes smoke. He may smell it from time to time but I don't think he would actually get any vapours in. It is more a health thing. It is more exposure to the smoke. I just don't think it is fair when they don't have a choice and no power to change it really. Yeah, I am pretty sure it is not a good idea exposing kids to smoke of any kind. Aaron (49) Family 5

I do not want my kids to be exposed to the smoke. ... I smoked in front of him earlier today, he never left my side and that was interesting to see that, he can't stand cigarettes and yet... I have heard Jeff and his friend David come in and go 'sniff' "what's that smell? Why is there marijuana in the house?" not with me, with his dad because his dad smokes such a heavy amount. ... They are both addicts [her son and his friend] because their parents both smoke inside and they are passive smokers, and they both have a certain tolerance to mull. He has a tolerance to mull, he can stand right next to me and inhale it all, and not change one bit, whereas with my 3- year-old it makes a huge difference, he runs around bouncing off the walls. ... I don't smoke it in the house, no,

especially not when Jeff is around, or Jamie. I do not want my kids to be exposed to the smoke.
Colette (36) Family 5

Linda was worried about the use of alcohol and drugs by both of her children but especially her son, however, she did not believe that her own use of cannabis had contributed to their use of cannabis and other drugs. Nonetheless, Linda acknowledged that when her son was about 14 or 15 he had found some cannabis of hers that was hidden in the shed and had later informed her that it was probably the best smoke he had ever had.

My son is a good example of that. He has substance abuse problems that are huge. He'll say to me "well, you used to be a drug addict, you survived!" ... The best smoke that he had and it's nothing to be proud of... He was about 14 or 15 and he found some of my smoke one day and a couple of years ago he told me that it was the best smoke he's ever had. He's never had anything that has ever come anywhere near it. But did that influence his ongoing use of drugs? No. I think he was making his own discoveries and he would have sought that out from somewhere else anyway, which he did obviously in the end. When he went to go and live with his dad when he was in year 8.

Linda (50) Family 1

Linda's 20-year-old daughter stated that her mother's use of cannabis and cigarettes had "probably" influenced her own use of those drugs. Furthermore, Heather admitted that she initially discovered cannabis through exposure to the use of cannabis by her mother and her mother's friend.

Using cannabis just felt a little bit more comfortable and I don't have to hide it, therefore, it's easier for me. As a kid I always thought I won't get into much trouble because mum does it. ... Me and Molly, we did stuff because we knew [our mothers] were doing it, when we were really little. This was how we started smoking weed; we would steal it from Rachel. When we were about 11, we would steal her weed bushes from the back yard ... and we would sell it to the kids at school ... and my brother because he was older.

...

Heather (20) Family 1

Linda was not the only young person who had helped herself to her parent's cannabis. Jenni also recalled stealing cannabis from her mother when she was 12; Jenni had subsequently gone on to use drugs quite heavily during her adolescent years. "I remember stealing it off mum when I was most probably about 12 and started smoking it but I actually didn't know how to smoke it" said Jenni (27). Therefore, although most parents argued that their cannabis use had been harmless, there was sometimes a direct relationship between children's initiation into cannabis use and their parent's use of cannabis.

6.4 Boundaries

The final sub-theme concerned parents' willingness to maintain parent-child boundaries, especially when it came to smoking cannabis with their children when they knew that the young

person was already using cannabis. Even when children were aware of their parent's use of cannabis, most of the time parents tended to avoid actually smoking in front of their children. Similarly, even when parents knew that their young adult children were using cannabis, young people and their parents rarely smoked cannabis together. This sub-theme incorporated two minor themes: 1) Parent-child boundaries; and 2) Smoking together.

6.4.1 Parent-child boundaries

Madalyn (34) had not used cannabis since she was a teenager but she had grown up with parents who had a very liberal attitude; she was provided with cannabis when she was 15.

It was something that I just grew up with. I was sort of handed a bag of weed at 15 by my dad. My mum smoked as well. She gave me my first taste of hash oil but then she had her first trip with me, as well at my dad's 40th. It was like a different [relationship] when they got divorced, they were our friends not our parents ... but it is not normal for a parent to step over that line and to act like your friend and to encourage drug use. I mean at some point they are going to want to try alcohol but just because I will let them have a drink that doesn't mean I am going to sit there and drink with them. That is the line. They have got their friends, they don't need another friend. So that was where I wanted them to understand that this was how I was raised but because I was raised like that I don't want to raise you that way because I understand the difference now.

Madalyn (34) Family 11

Madalyn makes it clear that she believes it is important to be a parent rather than a friend to your children. She is keen to implement clear boundaries as opposed to the lack of boundaries displayed by her own parents. Tamara (33) explained that when it came to setting boundaries, she would probably allow her teenage sons to experiment with cannabis in the safety of their own home, however, she would not allow other young people who were minors to use cannabis in her home.

I would probably let them smoke [cannabis]. I wouldn't let their friends come over and smoke because that is not my responsibility but my dad did it [let us smoke at home] and it was just a kind of turn off for us. We just didn't want to do it after 17 or 18 because he didn't care and it was just so accepted. You didn't have that rebellious element and it all just becomes not challenging at that age.

Tamara (33) Family 3

Tess (34) explained that she respected her mother for not allowing her to use cannabis until she was 18.

Mum wouldn't let me smoke until I was 18 and I told her I used to smoke when I was younger and she was real angry at me. She said to me, "I don't care if you smoke but I want you to be 18 before you start." I have always really respected my mum for that. It is just like anything else, if you are going to do it make sure you are old enough to do it. I have always respected my mum. I think she let Jenni smoke a bit earlier because Jenni

was really rebellious and stuff but I really respected what mum had to say and Jenni has always been a little bit more set in.
Tess (34) Family 12

6.4.2 Smoking together

Linda explained that she had once used cannabis with her teenage son but had found the experience to be uncomfortable. She said that it had never happened again because, in addition to her discomfort, she did not want to set a bad example for her children.

I don't choose to smoke in front of my kids. I smoked [with] Chris one day because I knew he was smoking then anyway and he was a teenager and I thought it might just relax him out. I didn't do it again. [My daughter] knows I smoke but I don't normally do that in front of her, not as a rule, I'll wait until she disappears.
Linda (50) Family 1

Heather (20), Linda's daughter explained that she had sometimes shared a joint with her mother but acknowledged that this had only occurred on rare occasions. Heather lived with her mother and informed me that her father and brother (who lived together) continued to use illegal drugs together.

Through the years I have seen mum [smoke cannabis] and [we have] had a joint together because if I am home and having a smoke I would always offer her some and if I have friends over and we are outside, she wouldn't say anything about it. We always offer her but it's very rare she would come out. ... As a kid, even when I was 14, I knew dad and Chris were doing drugs together and not just weed, they were doing other stuff together [including amphetamines]. ... And they still have that kind of thing as a bond, whereas I would never do anything like that with mum even if she did those kinds of drugs, I wouldn't [do them with her] ... You have to draw the line somewhere and it's your mum!
Heather (20) Family 1

Mike (51) was quite open about his use of cannabis but rarely smoked in front of his teenage children although he acknowledged that he had used cannabis with them on special occasions. Mike wanted to be able to model appropriate use of cannabis but struggled with this given the illegal status of cannabis.

I don't like to smoke in front of them, no; I just don't think it is necessary. Modelling is the most important way that kids learn, well how all of us learn, from watching other people and so I don't think it is a good idea to make a big deal about it. I have smoked with two of my children, smoked a joint with them on ultra-ritualised occasions. [Special occasions?] Yeah, that is part of being a parent, teaching your kids to be an adult. It is like having their first alcoholic drink. Alec is 20 and he smokes with his mates and I smoke with his mates as well sometimes and have a yarn. I have smoked with the kids as I said but very rarely. Lindsay is not really that interested, she'd like to occasionally if she came over with her mates maybe she'd like to have one but I don't really smoke around them much. Generally, I have hid those things but I try not to hide stuff, and don't forget we don't want to model law breaking. You are not able to model appropriate use because it is illegal, and that is what it boils down to really, isn't it?
Mike (51) Family 4

Mike's son, Alec (20) confirmed that his father had shared cannabis with him and his friends during an Australia Day celebration.

There was this one time a few years ago on Australia day ... and one of my mates was like "your dad is coming home we have to hide everything, stop, everyone stop!" and I am like, "no, man, he won't care, it will be fine, in fact, he will even have some." He did come and we smoked with him and there were no problems. [You didn't feel awkward?] No. I think I probably would have if I was younger. I think because I am quite a bit older now and I am more of an adult myself. Probably like at 17 I would have been worried about it, but not recently. We have only done that a couple of times.

Alec (20) Family 4

Mike's daughter, Lindsay (18) also confirmed that there had been occasions when she had smoked some cannabis with her father and mentioned that this had occurred when she was still at high school. Although she didn't feel particularly uncomfortable smoking cannabis with her father, she rarely used cannabis and when she did so she preferred to be amongst peers rather than with family members.

Yeah a few times. It was a while ago because I was kind of into it at 15 or 16 at high school and sometimes he would be here with his friend and they would go, "hey Lindsay, do you want a drag, do you want a joint?" And I would be like "okay free weed!" but yeah it is kind of weird. Sometimes his friend would be doing it with him, and I would only do it once and then leave because it is kind of weird, it is the kind of thing I associate doing with my friends and socially. So it was weird doing it with my dad. ... A friend was telling me today, that he gets stoned with his dad all the time but [dad] is not really the kind of person I would have as a stoner buddy [laughs] but yeah, it is not like I was embarrassed or anything.

Lindsay (18) Family 4

Craig and his partner were aware that all their children (who were in their twenties) used cannabis, however, he said they rarely used cannabis together.

I didn't smoke in the house in front of them and even to this day we don't smoke with them even though we all know we each smoke at times we don't sit around as a family and have a smoke together. It is not something that we do in the house. I have had a smoke with them all, I think, at some stage but rarely. Just a quick drag so it is not that they don't know and it is not that I would refuse to but I just don't want to encourage it within the house.

Craig (50) Family 9

Renee (47) was aware that her 16-year-old son had begun to experiment with cannabis and alcohol. She explained that she allowed him to drink alcohol at home as she was trying to teach him to use alcohol more responsibly, however, she would not allow him to use cannabis when he was at home. Renee admitted that she did enjoy using cannabis with her daughter Molly, who was 19, and stated that she allowed young people to consume cannabis and alcohol at her home because it allowed her to be there to provide supervision and advice.

I won't let Findlay smoke pot in front of me, even though I know he does [use cannabis] but I have let him drink alcohol in front of me because ... I am trying to teach him what is judicious drinking ... As for smoking with my oldest daughter. I enjoy it. I know what she is doing, I know where she is. We have a laugh and we get on well and her friends come around ... here and they say, 'I like to talk to your mum, she gives me sensible advice' [although] they might not listen. So I like the fact [that we smoke cannabis together] but I will not allow over use, whatever [the substance] is. I don't want to see them smashed off their faces. I always monitor it. Renee (47) Family 13

Other participants came from homes where their parents were also more liberal. Tess (34) explained that she had been sharing cannabis with her mother since she was 17. Tess explained that although she had initially felt accepted into her mother's inner circle when she was allowed to have some cannabis, these days she usually didn't feel comfortable using cannabis with her mother.

I think maybe just before I was 18. I think I said, 'could I have a tokes?' and she said 'yes'. [What was that like?] You know what it was, I was finally in the group and before I would be sitting at the table and it would be by-passing me, I was finally in with the group, I was finally cool. [So did that just become a fairly normal thing?] Yeah and my mum had really good weed, so yeah, when I went over to mums and when she had a smoke during the day because she does sometimes. She would say, "I am going to have a smoke" and she would say "do you want one?" and I would often say "no because I have got things to do today" and I don't often feel comfortable smoking with mum. Tess (34) Family 12

Summary.

This theme considered outcome data to determine whether the parent's use of cannabis was, in fact, managed in a way that minimised any harm to family members. This theme drew on ideas contained in Theme 2 (Harms) and Theme 4 (Attitudes) regarding the transmission within families of liberal attitudes toward drug taking, as well as ideas from Theme 5 (Communication) which explored the development of children's understanding of their parent's cannabis use.

It was generally acknowledged that using cannabis could impact on whether parents were emotionally available and responsive to their children's needs. Some parents described how cannabis made them lazy when it came to doing housework and childcare tasks, such as bathing or feeding their children, and the use of cannabis also had the potential to impact on parental supervision, discipline, and safe transportation of children. For those on a low income there was sometimes a significant financial impact on the household and some parents became impatient and irritable toward their children when they did not have ready access to cannabis. Parents often mentioned that they felt guilty about the money they spent on cannabis, as well as for setting a bad example to their children, feeling like they influenced their children's choice to use cannabis, and for using cannabis when they were pregnant. Some children, particularly those aged between

8 and 12, were worried about their parent using cannabis and some were angry about it. Participants who had recently quit using cannabis were more likely to recognise that their cannabis use had been detrimental to their parenting, with one couple describing a prior preoccupation with obtaining and using cannabis.

Children and young people in the current study tended to describe reasonably well functioning families in which the importance of children's education and extracurricular activities was valued and encouraged. Even when children were aware of their parent's use of cannabis, most of the time parents avoided actually smoking in front of their children. Similarly, even when parents knew that their young adult children were using cannabis, young people and their parents rarely smoked cannabis together. Most parents argued that cannabis, like alcohol, could be used judiciously and managed in a way that minimised harm to self and offspring. Parents and their children generally indicated that their parent's cannabis use had resulted in little or no harm to the family. Some parents cited a positive effect on their parenting, such as making them more agreeable, more playful, and less stressed. Nonetheless, family members sometimes failed to recognise that the parent's use of cannabis might have had negative impacts on offspring, particularly when it came to the transmission of liberal attitudes to drug use, young people accessing cannabis at home without their parent realising, and the worries expressed by younger participant children.

Theme 7. Harm Reduction Strategies

In Theme 2 participants acknowledged that using cannabis could lead to a variety of harmful outcomes for some people, including mental health problems, financial and legal problems or other problems associated with dependent or excessive drug use, such as not providing adequate care of children. Although identifying a wide variety of potential harms associated with cannabis use, most participants argued that their own cannabis use had been well managed such that they and their families had experienced relatively little harm, a view that was predominantly confirmed by interviewing family members as outlined in sub-theme 6.3 Outcomes. Theme 7 focused on identifying the attitudes and behaviours that might have contributed to participants' ability to reduce the risk of harmful outcomes. Potentially useful strategies to reduce cannabis-related problems and minimise harm were identified by the researcher through reanalyses of themes 1 through 6. The harm reduction strategies were embedded in Theme 2 (wherein participants identified their perception of the harms associated with cannabis use) and in Theme 3 (where participants articulated the difference, as they saw it, between problem drug use and drug use

that was not causing problems). Theme 7, therefore, contains no new data but rather reorganises the data to identify and highlight the harm reduction strategies used by the nominated cannabis users. Theme 7 was organised into five sub-themes, although there is some overlap amongst the constructs: (1) Dosage control; (2) Dependency; (3) Acute risk; (4) Long-term harm; and (5) Harm to children.

7.1 Dosage control

This sub-theme was about titration of the cannabis dosage and incorporated four minor themes: 1) Level of intoxication; 2) Potency; 3) Method of delivery; and 4) Mixing with alcohol.

7.1.1 Level of intoxication

Although nominated cannabis users had been using cannabis regularly for decades, with some using daily, they emphasised that they did not usually seek an intense state of intoxication but rather aimed to reach a more minimal or moderate level of intoxication. Family members confirmed that this was the case. Paul (54) described his partner as using “*very mildly*” and Lindsay said that her father “*doesn’t get really, really stoned*”.

We have measured out what I put into a joint and it is less than a bong’s worth, less than a cone. People look at me and go “why do you even bother?” I didn’t want the good stuff because I couldn’t function on it”.
Renee (47) Family 13

As with alcohol use, common sense suggests that limiting the quantity of cannabis used on any one occasion is a useful strategy to reduce harm to self and others.

7.1.2 Potency

Participants argued that cannabis potency varied considerably. Colette (36) noted that “*the strength of the mull is always different*”. Many of the nominated cannabis users stated a preference for smoking outdoor strains of cannabis (bush weed) over the more readily available hydroponic strains because they preferred the less potent variety. Paul was not a cannabis user but noted that his wife “*doesn’t use really strong stuff*.” Linda explained that:

I prefer to smoke bush if it is available. I smoked some hydro recently and I got in the car and got on the freeway and it absolutely freaked me out. It was a particularly strong smoke. I mean there are so many different degrees of smoke. I don’t like to be that stoned that I can’t operate, that is just horrible.
Linda (50) Family 1

Craig (50) said that if they bought some “*strong stuff*” they would mix it with “*some leaves*” off their home grown plant to make it less potent.

We have grown a few of our own [plants], and I am just as happy with leaf. I am not really out for the really strong stuff; I don't like that. I like it just how it comes off the plant and not really concentrated. We like to have the feeling but without [becoming] totally incompetent.
 Craig (50) Family 9

Hence, many cannabis users in the current study deliberately obtained less potent varieties of cannabis to achieve the desired state rather than seeking potent hydroponic forms which many considered to be more harmful. If they had potent cannabis, participants often blended it with tobacco, marijuana leaf, or reduced the amount they smoked to smaller quantities.

7.1.3 Method of delivery

Participants used various methods of delivery, including water pipes (bongs), bucket bongs, joints, and consuming baked goods. On the one hand some people thought that it was better to use a bong as the smoke was cooled before it entered the lungs and some of the toxins were filtered out into the water chamber.

I use a dual chamber bong; it means it is filtered twice through water before you smoke it rather than once. So it cools it down and makes it a little less toxic. Phillip (46) Family 8

On the other hand one participant argued that using a bong made the process of consuming cannabis too quick and easy thereby contributing to increased cannabis consumption.

I use a gravity bong in the laundry at the moment. It's sort of like a bucket [bong] It is such a fiddly, pain in the arse way of smoking it that sometimes I can't even be bothered. I don't use bongs; it tends to encourage a bit more smoking, makes it a bit easier.

Mark (32) Family 2

Parents in the current study emphasised the risks associated with using 'bucket bongs,' a method of cannabis consumption that tends to push the smoke into the lungs more forcefully producing a rapid and intense state of intoxication (Delahunty & Putt, 2006).

The worst thing is that kids nowadays smoke buckets and that is a killer because that is a lot of fluid that you are inhaling as well. I had a bucket once and it frightened the hell out of me.

Sally (56) Family 12

Participants occasionally ingested cannabis in the form of baked goods, rather than smoking it.

Sometimes if we are going out we might have it in a cookie. The thing that worries me the most is the actual habit of smoking it not the effect it has on me. So, I try to reduce the amount of smoking that I do.

Craig (50) Family 9

I prefer eating it especially because when I do smoke a cone, afterward I will cough and I just have trouble dealing with that.

Kelly (44) Family 8

There were drawbacks to this form of consumption as onset of the effects would be delayed and the strength of the product would not really be known until it was consumed. Participants

therefore argued that it was important to consider the method of delivery as this was an important variable affecting intoxication levels. While people had different views about the benefits of using a bong or a joint (the two most widely used forms of cannabis) it was generally noted that consuming baked cannabis or using bucket bongs were considerably more risky than other methods of consumption.

7.1.4 Mixing with alcohol

Some participants noted that problems were more likely to occur when alcohol was used as well as cannabis. Mark (32) had experienced problems with his combined use of alcohol and cannabis.

The order you do them in does affect it. If you have some cones with alcohol, the quickness with which that gets into your body, I have noticed that for sure. If I started smoking and drinking now within 6 months down the track I would be a mess.

Mark (32) Family 2

This suggests that the risk of acute harm is likely to be lower when cannabis is not used in conjunction with alcohol.

7.2 Dependency

This sub-theme was about strategies that were used to reduce the risk of dependency and included three minor themes: 1) Frequency of use; 2) Self-monitoring; and 3) Mixing with tobacco.

7.2.1 Frequency of use

While some participants used cannabis every day, for many cannabis use was mostly limited to weekends and other leisure times.

I don't know about others but I do believe that they need to have days where they don't have any. To me it is a purely recreational thing which is for the weekends.

Craig (50) Family 9

Patterns of dependent, excessive, or compulsive use were deemed undesirable by nominated cannabis users. They were aware that using cannabis every day would lead to tolerance effects and therefore they would experience lower levels of intoxication with more frequent use.

7.2.2 Self-monitoring

Nominated cannabis users had experienced times in their lives when their cannabis use had become excessive but most stated that they had learned to monitor their use of cannabis and reduced their intake as necessary to ensure that their cannabis consumption did not increase over time.

The drugs can get to the point where you actually find that you are using earlier and earlier during the day and that is when you have got to take stock of what you are doing and stop and have a good look at yourself. Trevor (45) Family 10

7.2.3 Mixing with tobacco

Many of the cannabis users in this study also smoked cigarettes and even those who didn't smoke tobacco sometimes put it in their joints to make them burn more evenly or to fill the joint so that they used less cannabis. Participants often talked about how adding tobacco made cannabis more addictive and how the pairing of the two made it more difficult to stop smoking either. Aaron (49) stated that *"I smoke more cigarettes when I have been smoking pot."*

I have stopped splitting the weed with tobacco and that has made a difference. Otherwise you are getting the cravings for weed and tobacco. Mark (32) Family 2

Hence, it seems that the use of tobacco, although often intended to make a joint or cone less potent might, at the same time, increase cravings for both cigarettes as well as cannabis.

7.3 Acute risk

This sub-theme was about strategies that were used to reduce the risk of harm through cannabis intoxication and included three minor themes: 1) Monitor mood; 2) Avoid driving; and 3) Prioritise responsibilities.

7.3.1 Monitor mood

Participants pointed out that using cannabis enhanced their existing mood or emotional state and many nominated cannabis users had come to realise that if they were experiencing negative mood before they used cannabis then they risked worsening this state by using cannabis.

If I am feeling bad, I really don't feel like pot is ever going to make me feel good. If I am feeling okay, it will make me more okay. I think I might even avoid getting stoned if there was something on my mind already because you can become a bit obsessed and locked in a cycle of thought about it. It might make me more prone to paranoia and to focus more on the negatives, rather than give me insights or whatever. Aaron (49) Family 5

Through their experience with using cannabis, nominated cannabis users had often come to realise that they could reduce the risk of increasing negative mood states, such as anxiety, depression, and anger by monitoring and considering their existing state of mind before deciding whether to use cannabis or not.

If I am not in a good mood, I won't have a cone but that is pretty new as well. I wasn't always on top of it. I think dope affects your frame of mind more than drinking. With drinking, no matter what your state of mind is drinking will calm it down whereas with dope your state of mind affects the outcome more. I find that I actually prefer to smoke

dope when things are good rather than if I am a little bit stressed or a little bit anxious or something like that.
Mark (32) Family 2

This suggests that monitoring one's mood before deciding to consume cannabis and avoiding cannabis use when one is already experiencing negative emotions is a useful strategy to reduce the likelihood of the development or worsening of mental health problems, such as anxiety or depression.

7.3.2 Prioritise responsibilities

Participants generally acknowledged that using cannabis impacted on their cognitive abilities as well as their motivation to complete necessary tasks. Hence, there was an emphasis placed on the importance of not getting stoned until they had taken care of responsibilities associated with work, study, and running a household. Linda (50) said that she would not use cannabis *"if there was something that I really needed to concentrate on or pay attention to [because] you can't focus."*

It is debilitating [sic] if you have to go and do anything that requires business sense. I find that even now if I have a smoke the last thing I want to do is go and work. I worked for probably 12 months stoned every day [in my previous job]. [These days] I normally try and make sure I get things done [first]. If I have to talk to bosses or anything to do with my work I get all that stuff done first and when I have finished with all my obligations, then I'll go out the back and have a joint.
Anthony (36) Family 3

Ensuring that responsibilities were prioritised over drug use was therefore an important strategy to reduce harm to self and family that was grounded in common sense.

7.3.3 Avoid driving

Many participants were also clear about waiting until they were at home for the evening before using cannabis as they didn't want to take the risk of operating a motor vehicle whilst under the influence of cannabis, particularly if it involved driving their children somewhere.

I get home before the kids usually but I obviously have to be careful about driving. So I do it less and less now when I have got the kids because often they will say they have to be dropped off somewhere.
Mike (51) Family 4

I get everything done that I have to, travel in a motor vehicle and all that sort of stuff before I will smoke.
Anthony (36) Family 3

7.4 Long-term harm

This sub-theme was about strategies used to minimise any long-term harm and consists of data from five minor themes: 1) Active coping; 2) Drug seeking; 3) Low profile; and 4) Cost.

7.4.1 Active coping

Participants acknowledged that cannabis, like alcohol and other drugs, could be used to avoid experiencing painful emotional states or having to face up to stressors and problems in life. Nominated cannabis users pointed out that the use of active coping, rather than avoidant coping, was a critical harm reduction strategy.

I have had the situation where I have thought “get some dope and forget about the problem” and it does work but of course it is not a long-term solution and if you keep on doing that you will go down the tubes.
Mike (51) Family 4

As well as active problem-solving, it was mentioned that the risk of physical harm through long-term cannabis use could be reduced through the adoption of healthy habits such as exercise and social engagement.

If you still put in effort and exercise and get out and do stuff, well you are minimising the physical harm it can do.
Anthony (36) Family 3

Participants also emphasised the use of counselling and other activities, such as yoga and meditation, to reduce stress and relax.

[Cannabis] was just that quick ritual that took really no effort to get the desired effect which was that I was tired enough to go to sleep. So instead of actually exploring other avenues of how to sleep, like breathing techniques and chamomile tea, just little things that you do, like going and having a nice warm bath... They are all really nice, good positive things to do for yourself but I think because I was so busy looking after little kids, you fall into this trap.
Madalyn (34) Family 11

7.4.2 Drug-seeking

Nominated cannabis users exercised discretion when it came to the purchase of cannabis and to eliminate risks associated with the illegal purchase of cannabis, many explained that they were very careful about who they obtained it from and would go without rather than approach anyone they didn't have a long-standing relationship with. As Carol (50) said, “You don't go to strangers for that, no, that is one way to get into trouble.”

We would rather just go to places that we know well. If we can't get it from them we just go without. I wouldn't just buy it off anyone.
Craig (50) Family 9

7.4.3 Low profile

Cannabis users were aware of the risks of unwanted police attention and exercised a level of discretion in terms of their cannabis use. Aaron (49) had to be careful about his cannabis use, “I can't really smoke outside, there is a police woman lives next door.” Due to its illegal status, most cannabis users, particularly the older generation, were careful about who was aware of their

cannabis use with. Linda (50) said, *“There are only a few people I smoke with now. Not everyone knows that I smoke. I kind of don’t put it out there.”* Mike (51) was a teacher and his colleagues were not aware of his cannabis use. *“I am not going to divulge my cannabis use to my colleagues. I keep a lid on it and don’t sort of talk about it much there.”* Cannabis users were aware that opinions about the use of cannabis tended to be at one extreme or the other. Hence, they were aware that their cannabis use might be subject to social disapproval, including condemnation from family members or colleagues. The strategy of keeping a low profile about being a cannabis user served to minimise any harm that might occur due to other people’s judgements about the use of cannabis.

7.5 Harm to children

This sub-theme was about strategies used specifically to minimise any harm to children of cannabis users. It incorporated three minor themes (drawn from Themes 2 and 3) related directly to the parenting role: 1) Separation from children; 2) Obtaining cannabis; 3) Storing securely; 4) Prioritising children’s needs; and 5) Cost.

7.5.1 Separation from children

This minor theme encompassed ideas about separating the use of cannabis from children to prevent their exposure to cannabis use and to cannabis smoke. Even when children were aware that their parent used cannabis, most parents kept their cannabis use out of the house and away from their children.

[My children] are not very [exposed to it], because it is quite a big house, and they are usually down at one end of the house, in their bedroom or watching TV, and I am down this other end [out the back]. I certainly wouldn’t smoke indoors. I don’t normally smoke cigarettes in there either.

Mike (51) Family 4

Kids shouldn’t be exposed to cigarette smoking. They shouldn’t be exposed to cannabis smoke. Neither of us ever smoked in front of the kids.

Tina (36) Family 2

7.5.2 Obtaining cannabis

Another important way to minimise risk to children and partners was to make sure that they were not present or in the motor vehicle when there was an intention to obtain cannabis.

I have told [my husband] that I don’t want to know about getting the pot and all that sort of stuff ... because it [was] such a drama ... having to go to these people’s places. I have said, ‘okay, I don’t want to go there with you; that’s your stuff.’ I don’t want to be involved with that, going off to strange houses, it is not my thing to mix with people that are doing harder stuff, selling other stuff.

Tamara (33) Family 3

[My daughter] usually doesn't come with me. Usually I don't let her do that. I do it when she is not around.
Lynette (37) Family 7

7.5.3 Storing securely

Children in the current study identified that they had been aware of and able to access cannabis in the home from a younger age than what parents had realised. This represented an area of potential harm and pointed to a greater need to store all cannabis, cannabis-smoking implements, and baked cannabis securely to keep these items out of reach of curious children and adolescents.

I keep it hidden because there is a 14-year-old. She is almost 15. It is illegal [and] I don't like the idea of someone else getting influenced by me to start a habit. ... So I keep it away from her as much as I can. ...
Phillip (46) Family 8

Furthermore, those with children found that growing cannabis at home was also not an option.

I used to grow it. When the kids were young ... they started to look out there so that became a problem with the kids. I couldn't grow it around the kids. Mike (51) Family 4

7.5.4 Prioritising children's needs

Nominated cannabis users emphasised the need to prioritise their children's needs over their drug use. They made sure their children's educational needs were met and that they were provided with socialisation outside of the home where people were not using cannabis. Parents stressed the importance of supervising their children properly, modelling respect and appropriate behaviour, and maintaining parent-child boundaries. Hence, the use of cannabis often occurred when the children were in bed for the evening.

[What you are saying is that some people who smoke still manage to bring in the supervision and the structure?] Yeah, if you've got that moderated you are still aware that you're a parent and you've got responsibilities there but when you become so self-centred, just on yourself, no-one else matters, the kids don't matter either. ... The kids have never seen me drunk, for instance. It's controlled; it's always been controlled. Even when the kids were younger, I wouldn't smoke during the day. I'd wait until they were all home and I'd finished all my cooking and organised them. I might even smoke after they'd gone to bed. .
Linda (50) Family 1

I have the odd morning cone occasionally if Tina has taken all the kids out or something and I can actually let my hair down and relax but the kids are too much to control otherwise. I've usually got to wait until they're tucked in bed. Usually sometimes I might have my first one just before dinner but usually if I'm here just after the kids go to bed. When the kids are around I won't do it during the day. They always seem to want something.
Mark (32) Family 2

7.5.5 Cost

The use of cannabis was a relatively inexpensive option for many users, particularly when individuals grew some of their own cannabis. Mark (32) said that when he and his wife were both using cannabis it would cost them no more than \$50 per week. Nonetheless, some participants found themselves paying top dollar to purchase cannabis as it was rarely practical or safe to grow their own, particularly as there tended to be children present in the home. Parents emphasised that their children didn't usually miss out on anything due to their cannabis use as parents were either financially secure or the parent tended to go without other personal items themselves (e.g., clothing, haircuts) to finance the cost of their cannabis use.

I have kicked myself sometimes on what I have spent but it has never encroached on rent, bills, or food; they are my priority, which is probably why the financial crisis was [that] I couldn't afford decent pot.
Renee (47) Family 13

Summary.

This theme was about articulating the attitudes and behaviours of nominated cannabis users to identify harm reduction strategies. Nominated cannabis users were deliberately seeking a mild relaxing state of intoxication rather than an intense state and managed their level of intoxication through strategies aimed at dosage control. These included limiting the quantity of cannabis they used on a given occasion; using less potent varieties, such as outdoor strains (bush weed) and blending potent cannabis with tobacco or leafy cannabis material that has little psychoactive content. Cannabis users claimed benefits for various methods of delivery and emphasised that bucket bongs used by the younger generation increased the risk of harm due to producing rapid and intense intoxication. Furthermore, nominated cannabis users pointed out that using cannabis with alcohol could increase the effects of either drug.

To reduce the risk of dependence, nominated cannabis users recommended avoiding the use of cannabis every day and recognised that tolerance could be used to their advantage in that excessive use would eventually produce little benefit. It was noted that cannabis use could creep up over time and it was recommended that cannabis users measure and keep track of their use so as to avoid it increasing over time. Several participants emphasised the risks associated with mixing tobacco and cannabis, which was noted to increase cravings for both drugs. Nominated cannabis users said that to further reduce acute risk it was important to prioritise responsibilities associated with employment, family, and driving a motor vehicle before using cannabis. Furthermore it was emphasised that one should consider their existing mindset before using and not use cannabis if already experiencing a negative state of mind or significant stress.

To minimise the risk of long-term harm it was important to use active problem solving rather than using cannabis to avoid dealing with problems. Other ways to minimise long-term harm included maintaining healthy habits, such as exercising and socialising without cannabis. To avoid social and legal problems it was considered important to be discreet about your cannabis use and to only obtain cannabis from people with whom you have a long-standing relationship. It was also important to ensure that your cannabis use does not place you or your family in financial hardship. Some individuals suggested that growing one's own cannabis plants could reduce the financial costs, however, this was not a safe option for those with children. In reducing the risk of harm to children it was also important not to expose them to cannabis smoke and to generally avoid using cannabis when children were nearby. Other ways to reduce harm to children were to never allow family members to be present with you or in your vehicle if you were intending to obtain cannabis and to store all cannabis, smoking implements, and baked cannabis securely and away from children. The harm reduction strategies outlined above are summarised in Table 4 below and will be discussed in relation to the extant literature in Chapter VI.

TABLE 4

Harm Reduction Strategies

| Theme | Strategy |
|--------------------|--|
| 7.1 Dosage control | 1. Limit the quantity of cannabis used on any one occasion. |
| | 2. Use less potent varieties of cannabis, such as outdoor strains. |
| | 3. Consider the method of delivery as this affects intoxication levels. |
| | 4. Avoid using alcohol (or other drugs) when using cannabis. |
| 7.2 Dependency | 5. Avoid using cannabis every day – use tolerance to your benefit. |
| | 6. Keep track of how much cannabis you are using to ensure use doesn't increase over time. |
| | 7. Don't mix tobacco with cannabis as it can increase the cravings for both. |
| 7.3 Acute risk | 8. Avoid the use of cannabis if you are experiencing negative mood or heightened stress. |

| Theme | Strategy |
|----------------------|---|
| | 9. Take care of work and other responsibilities prior to using cannabis. 10. Avoid driving a motor vehicle when under the influence of cannabis. |
| 7.4 Long-term harm | 11. Don't use cannabis instead of dealing with problems – use active problem solving. 12. Maintain healthy habits that are incompatible with cannabis use, such as meditation, exercising, and socialising. 13. Only purchase cannabis from people with whom you have a long-standing relationship. 14. Maintain a low profile – be careful who knows about your cannabis use. |
| 7.5 Harm to children | 15. Ensure that the cost of your cannabis use does not cause you or your family financial hardship. 16. Don't expose your children to the use of cannabis or to cannabis smoke. 17. Don't allow family members to accompany you if you intend to obtain cannabis. 18. Store all cannabis, smoking implements, and baked cannabis securely and away from children. 19. Prioritise your children's needs over your cannabis use, and pay attention to their social and emotional needs. |

Chapter VI - Discussion (Study 1)

The data were organised into seven major themes: (1) Benefits; (2) Harms; (3) Problems; (4) Attitudes; (5) Communication; (6) Parenting; and (7) Harm reduction strategies. The data related to Theme 6 (Parenting) were extracted from the first five themes. Potentially useful strategies to reduce cannabis-related problems and minimise harm were primarily identified throughout themes 2 and 3 in which participants articulated their perception and experience of cannabis-related harm and differentiated between problematic drug use and drug use that they viewed as non-problematic.

Theme 1. Benefits

The perceived benefits of cannabis use were organised into three broad sub-themes: (1) Positive stimulation; (2) Social benefits; and (3) Reducing discomfort. Smoked cannabis exerts sedative, anxiolytic, antidepressant, hypnotic, and antipsychotic effects (Ashton, et al., 2005) and the pleasure associated with using any drug is closely linked to the context in which it is used (Halt, 2008; Zinberg, 1984). The ongoing use of cannabis by participants in the current study was a decision that each person made based on the expected effects that could be obtained by using cannabis in certain situations. This is consistent with findings in which experienced users of alcohol and cannabis made a choice as to the appropriateness of either drug to achieve desired effects in a certain context (Simons, et al., 2000).

In the current study, cannabis was used for the same reasons that people use alcohol and other drugs; to feel better and to provide relief from stress, through avoiding emotional, mental, and physical discomfort, or by enhancing otherwise pleasurable or ordinary experiences (Becker, 1953; Fox & Mathews, 1992; Glynn, et al., 1983; Goode, 1970; Holt, 2008; Kuhn, et al., 2008; Kuntsche, Knibbe, Gmel, & Engels, 2006; Lee, et al., 2007; Lende, et al., 2007; Reilly, Didcott, Swift, & Hall, 1998; Simons, et al., 2000; Theakston, et al., 2004; Weil, 1973; WHO, 2004). Consistent with previous studies (Copeland, 2012; Denson & Earleywine, 2006; Lee, et al., 2007; Swift, et al., 2005) cannabis was used to improve mood and manage emotional states, such as anger, boredom, anxiety, or threats to self-esteem. The reported benefits of improved mood are consistent with findings from a large internet-based study, in which recreational (including daily and weekly) cannabis users (n=4,494) reported more positive affect and less depressed mood than nonusers (Denson & Earleywine, 2006). Nominated cannabis users enjoyed the quickness with which they could achieve a sense of relaxation and mild euphoria, which they found intensified otherwise ordinary experiences, such as social interactions, listening to music, or engaging in sex. Some

argued that the use of cannabis enhanced their sporting performance and others believed that using cannabis benefited them in their creative pursuits, such as painting, writing, or playing a musical instrument. Hence, parents in the current study, who represent an older cohort of cannabis users than typically described in the literature, reported an enhanced perception of stimuli and reasons for using that were similar to those reported by younger cohorts (Astolfi, et al., 1998; Goode, 1970; Grinspoon, et al., 2005; Lee, et al., 2007; Tart, 1970).

The use of cannabis for medicinal reasons was often cited by nominated cannabis users and claims of significant benefits for conditions such as chronic pain and insomnia were consistent with research describing the therapeutic benefits of cannabis use (Grinspoon, et al., 2005; Swift, et al., 2005; Taylor, 2008; WHO, 1997). The fact that long-term cannabis users attributed a wide range of benefits to the use of cannabis, which was preferred over more conventional medications intended to treat medical symptoms such as pain and depression, puts them at risk for ongoing dependent use and chronic health problems associated with smoking as the most viable method of administration. Such harms are more fully articulated in Theme 2 (Harms) and their potential impact on the parenting role is specifically discussed in Theme 6 (Parenting). The medicinal use of cannabis also poses difficulties for doctor-patient relationships with patients reluctant to admit their cannabis use to medical practitioners, who have to be careful about condoning the use of an illegal drug. Nonetheless, some parents were using cannabis as an alternative to prescription drugs, such as those intended to relieve pain or manage mood disorders.

Women spoke about their use of cannabis for period pain, back pain during pregnancy, labour pain, and uterine pain following childbirth. Furthermore, women often reported that they had used cannabis to alleviate 'morning sickness' during pregnancy, a finding which raises concern given how little is known about the effects of cannabis on the unborn infant. Although the current study did not assess the effects of in-utero exposure to cannabis there was nothing to suggest that those participants who were prenatally exposed to cannabis were adversely affected. They were reported to have developed normally and had undertaken secondary education and university studies without apparent difficulties. Hence, any effects from in-utero exposure to cannabis were likely to be subtle rather than obvious.

In Jamaica, women often use cannabis during pregnancy to relieve nausea, augment appetite, promote rest, and to provide psychological comfort. Studies conducted in Jamaica have found cannabis-exposed infants to be less irritable, more alert and socially able, and to have better motor responses and more organised sleep-wake cycles than non-exposed infants (Dreher, et al.,

1994; Hayes, et al., 1988). These outcomes persisted after 1 month even in the case of heavily exposed infants whose mothers were daily cannabis users (Dreher, 1997). The use of cannabis by Jamaican women occurs within a context of social acceptability as opposed to the use of cannabis by pregnant women in Western countries, where it is often examined in the context of poverty, deviancy, and a polydrug using lifestyle. Findings from Jamaican studies suggest that the use of cannabis during pregnancy could be beneficial to mother and child, which suggests that any adverse effects of prenatal cannabis exposure can be attenuated by other environmental or maternal factors and this might also be the case in the current sample. Alternatively, it might be that any detrimental neurocognitive effects from prenatal exposure to cannabis are subtle and of little clinical significance, particularly in the context of an adequate postnatal caregiving environment. In any case, the high rates of cannabis use by pregnant women in the current study emphasises the importance of further research to address the long-term implications of prenatal exposure to cannabis.

Although family members usually had an accurate understanding of why their partner or parent used cannabis, they were sometimes less convinced than cannabis users were that claimed benefits were actually attained by smoking cannabis. Their observations are apt given that the mechanism, through which psychoactive drugs provide their effects is not entirely dependent on intake of the drug but is influenced by many other variables, including the person's beliefs, experience, and environment (WHO, 2004). Hence, the ritual of sitting outside quietly smoking a joint at the end of the workday involves more than just cannabis use in that the environment and circumstances might be construed as relaxing and peaceful, thereby contributing to the overall state that is achieved. This has important implications for treatment, which tends to avoid triggers for drug use through changing overt behaviours and thereby depriving someone of other important aspects of situations that they have frequently perceived of as pleasurable, such as friends, family, and wider social settings. The need for lifestyle changes when quitting cannabis was discussed further in Theme 3 (Problems).

For the younger participants the use of cannabis was a central aspect of their social life and often took place in the context of polydrug use, whereas older (nominated) cannabis users were more likely to predominantly smoke alone or with their partners and occasionally with a few select friends. Nominated cannabis users recalled that there had been a more social element to their cannabis use when they were younger and they too had used a wider range of other drugs during their youth. This finding is consistent with Darke and Hall (1995) who found that the range of

drugs used by individuals reduced with increased age. Further discussion of participants' drug use patterns across time occurs within Theme 3 (Problems). Participants reported that cannabis made them more talkative and easier to get along with and it was sometimes used to alleviate social anxiety or moderate a difficult personality. Cannabis was claimed to have a positive effect on intimate partner relationships, communication with teenagers, and the ability to remain calm during marital or parenting challenges.

Participants argued that smoking cannabis or having the sort of parent that did so, helped to make them more open-minded, tolerant, and compassionate than others. Young people and their parents linked a preference for cannabis over other drugs with certain personality traits that they valued, however, this might reflect a confirmation bias in which cannabis users notice information that supports their preconceived ideas about people who use cannabis. Very little research has addressed the issue of personality factors and cannabis use (Fridberg, Vollmer, O'Donnell, & Skosnik, 2011). Those studies that have looked at personality traits have consistently found that long-term cannabis users present with normal levels of Neuroticism and Extraversion, higher levels of Openness, and lower levels of Agreeableness and Conscientiousness (Flory, Lynam, Milich, Leukefelod, & Clayton, 2002; Fridberg, et al., 2011; Terracciano, Lockenhoff, Crum, Bienvu, & Costa, 2008) which suggests that cannabis users are nonconformists who are somewhat impulsive and suspicious of others. When examining the use of drugs in the parenting context it is important to understand the overall picture, including the parents' personality and the motives for their use, which can either moderate or contribute to the likelihood of the development of problematic patterns of drug use (Glynn, et al., 1983; Kuntsche, et al., 2006; Theakston, et al., 2004). Research that involves larger community-based matched samples would assist in understanding the role of motives and personality factors in long-term cannabis use and might usefully inform intervention, assessment, and prevention strategies (Kuntsche, et al., 2006; Lee, et al., 2007; Miller & Rollnick, 2002; Simons, et al., 2000).

Theme 2. Harms

Participants recognised that a range of harms were associated with cannabis use and potential harms were organised into two broad sub-themes: (1) Intoxication and (2) Long-term risks. Consistent with Thorley's (1980) model of drug-related harm (Thorley, 1980) which is widely used by those in the AOD field to conceptualise drug-related problems, there was some overlap in these constructs to the extent that side effects of cannabis intoxication (such as cognitive impairment) might have long-term consequences if intoxication is frequent and ongoing.

Nominated cannabis users were aware that cannabis intoxication was detrimental to their cognitive processes, particularly their short-term memory and attention, so they claimed not to use cannabis when they had to engage in important or work-related activities. Nonetheless, consistent with other Australian research (Copeland, et al., 2005; Jones, Freeman, & Weatherburn, 2003; Reilly, et al., 1998) participants sometimes drove a motor vehicle when under the influence of cannabis. Although cannabis intoxication is considered to have a deleterious effect on motor skills, co-ordination, and reaction time (Beardsley & Kelly, 1999; Kelly, et al., 2004; Sewell, et al., 2009) some participants argued that they drove more slowly and carefully after using cannabis, which is also borne out by research (Sewell, et al., 2009). Therefore, although participants mostly limited their use of cannabis to times when they had few demands on their cognitive processes, they did not always perceive the need to refrain from driving a motor vehicle.

Nominated cannabis users' understanding of the potential for mental health problems was in line with current evidence (Astolfi, et al., 1998; O'Brien, 1996; Tart, 1970; Thomas, 1996). They were aware that cannabis use could exacerbate depression, increase anxiety, lead to panic attacks, and otherwise amplify negative feelings. However, they were experienced long-term users who claimed to monitor their mood because they recognised that using cannabis was contraindicated if they were feeling depressed or anxious to begin with. Participants recognised that excessive use of cannabis, particularly in the context of a failure to address problems, produced poor outcomes and claimed to modify their patterns of cannabis use over time to minimise the likelihood of adverse effects.

Participants identified strongly with the notion of a cannabis-related 'amotivational syndrome' acknowledging that cannabis could reduce their motivation to complete daily household tasks and sometimes contributed to social withdrawal, problems which might have implications for other family members, especially children (see also Theme 6 Parenting). An amotivational syndrome marked by aimlessness, apathy, lack of ambition, uncommunicativeness, and passivity has not been clearly supported in the research (Gossop, 2007; Grinspoon, et al., 2005), however, individuals with pre-existing vulnerabilities to psychological problems, such as depression, often become heavy cannabis users (Hendin, Pollinger, Ulman, & Carr, 1981; Musty & Kaback, 1995). Indeed, some nominated cannabis users in the current study identified a tendency toward depression or anxiety that predated their cannabis use and factored this into their decision as to whether to use cannabis on a given occasion. Participants of all ages recognised that using cannabis could hinder progress toward important goals such as completing high school or

university. Such views are consistent with a substantial body of evidence that implicates the use of cannabis in poorer educational outcomes (Copeland, et al., 2005). Participants argued that, although they recognised the potential for adverse consequences, they had personally experienced few problems related to their use of cannabis. Their claims are consistent with evidence indicating that cannabis can be smoked regularly for years with minimal adverse physical, psychological, or social consequences (Grinspoon & Bakalar, 1993; Novak, 1980).

Most of the adverse health consequences of cannabis use, such as possible links to cancer, respiratory, and cardiovascular disease, are chiefly associated with long-term heavy use (Copeland, et al., 2005). Nominated cannabis users were aware that their ongoing use of cannabis put them at increased risk of developing such diseases. Two of the nominated cannabis users coughed frequently throughout their interviews, one was using heavily and the other was an asthmatic who was using very poor quality cannabis mixed with a high ratio of tobacco; both were also cigarette smokers. These two women were the only participants who showed obvious health-related symptoms associated with their cannabis use. Participants were also aware of risks to children due to exposure to cannabis smoke, a topic that is discussed further in Theme 6 (Parenting).

Nominated cannabis users had experimented with ingesting THC in baked form but found that ingesting THC did not produce the desired effect of achieving an immediate sense of relaxation and calmness. Furthermore, there was the risk that baked goods might be consumed unknowingly by children or visitors to the home. Hence, participants in the current study favoured the use of bongs (i.e., water pipes), joints (i.e., cannabis cigarettes) and small metal pipes. Their experience with different methods of smoking and different types of cannabis products assisted users to titrate their dosage to achieve the result they desired. Although it has not been confirmed that using cannabis (in the absence of other smoking) leads to chronic lung disease, the adverse respiratory effects of smoking cannabis are significant and similar to those associated with smoking tobacco and the effects of cannabis and tobacco smoking on respiratory health are thought to be additive and independent (Taylor & Hall, 2003). Cannabis users often smoke tobacco, either separately or concurrently, and a substitution phenomenon occurs in that one substance will be smoked when the other is not available (Akre, Michaud, Berchtold, & Suris, 2010). This was true of participants in the current study, who spoke about a complicated relationship between nicotine dependence and the use of cannabis, which is borne out by recent research (Agrawal, et al., 2008; Akre, et al., 2010; Amos, et al., 2004; Copeland, et al., 2009;

Patton, et al., 2005). Young people were more concerned about their parent smoking cigarettes than they were about their parent using cannabis.

Although cannabis users are likely to have concerns about their physical and mental health and their ability to control their level of use, social and relationship problems are less common (Thomas, 1996) and this was also the case in the current study, in which nominated cannabis users generally argued that their cannabis use was well managed and nonproblematic. Nonetheless, there were negative social implications associated with their cannabis use, including social disapproval and the stigma of being identified as a drug user. The use of cannabis by participants sometimes caused others, especially parents and offspring, to worry. When going without cannabis, some participants noticed mild withdrawal symptoms, such as disturbed sleep and irritability. Consistent with prior research (Budney, et al., 2001; 2003) other family members were more likely to notice the irritability associated with cannabis withdrawal. Other social implications included impaired conversational skills when using; family tension due to some members using cannabis and others disapproving; cannabis as a substitute for an attachment figure; and associating with criminals to obtain cannabis. Participants viewed these issues as relatively minor and claimed that they did not significantly affect relationships within the family (see also Theme 5; Communication).

Although some participants spent large sums of money on purchasing cannabis, this often occurred in the context of a high disposable income. Nonetheless, participants recognised that the costs associated with using cannabis could be detrimental to personal and household finances, a topic which is further discussed in Theme 6 (Parenting). Nominated cannabis users on lower incomes found themselves spending about 10% of their income on cannabis, compared with those in a cannabis treatment program who were found to spend nearly 25% of their income on cannabis (Copeland, et al., 2001). Robertson, Miller, and Anderson (1996) found that cannabis users often purchased small quantities of cannabis frequently rather than a larger quantity infrequently. Users said this was because they tended to have limited funds available and because they were worried that they might risk being charged as a drug dealer if they were caught in possession of more than a tiny amount (Robertson, et al., 1996). In the current study, one participant pointed out that purchasing larger quantities (which reduced the overall cost) increased the risk that he would smoke more due to the ready availability of a larger quantity. Young people were more likely than their parents to purchase larger bags (ounces) at a cost of

approximately \$300 each, which they then on-sold in smaller quantities to friends, an activity that constitutes drug dealing and increases the risk of criminal conviction.

Some participants had been involved with the legal system because of their cannabis use, with some parents having historically received criminal records and incarceration for growing cannabis. This finding is consistent with research which indicates that prior to the introduction of civil penalties, 8 out of 10 minor cannabis offenders received a criminal conviction (Bingham & Cheverall, 2011; Lenton, Ferrante, & Loh, 1996). Nominated cannabis users rated the risk of legal sanctions or public knowledge of their cannabis use as having the highest potential for causing problems in their lives. Young people were less worried about the legalities, perhaps because there is less stigma associated with using cannabis at a young rather than an older age.

Participants in the current study thought there was merit in the notion of a 'gateway hypothesis' that was linked to purchasing cannabis illegally from individuals who also sold other types of illegal drugs, especially crystal methamphetamine (known locally as ice or rock). Nominated cannabis users were less likely than young people to purchase their cannabis from a person that was also dealing in such 'hard' drugs as they were more cautious about who they associated with. Three of the parents in the current study had been involved with heroin in the past and they were introduced to heroin by a person from whom they usually obtained cannabis. Participants often complained that it was easier to obtain methamphetamine than cannabis and parents were worried that their children might view methamphetamine as being in the same league as cannabis. Parents viewed the increased availability and use of methamphetamine as a worrying local trend; their views about methamphetamine are consistent with evidence about the neurotoxicity, aggression, and other problems associated with the use of ATS (Allen, et al., 1975; Asnis & Smith, 1978; Baicy & London, 2007; Darke, et al., 2008; Darke, et al., 2000; Ellinwood, 1971; Hall & Hando, 1994; Martin, 1992; Miczek & Tidey, 1989; Ornstein, et al., 2000; Rogers, et al., 1999; Salo, et al., 2002; Simon, et al., 2000; Topp, et al., 2003; Wickes, 1993; Wright & Klee, 2001). Regardless of their own ability to manage their cannabis use, without exception, parents worried about whether their children would safely navigate their drug and alcohol use. Participants recognised that some individuals would develop problems associated with their use of cannabis but, consistent with the research base, argued that this was more likely to occur in those who were genetically predisposed to drug misuse problems, where other drugs and alcohol were also used, and when cannabis was used excessively.

Although identifying a wide variety of potential harms associated with cannabis use, most participants argued that their longstanding use of cannabis had predominantly been managed in such a way that they had personally experienced few, if any, problems and most family members confirmed this view. Participants' views about how their drug use differentiates from problematic drug use are explored in Theme 3 (Problems). Intergenerational drug use and other harm associated with parental cannabis use is elaborated in Theme 6 (Parenting). Participants compared their use of cannabis with the use of alcohol, in that most people manage to moderate and control their drinking although a minority develop considerable health, social, and legal problems due to either chronic or binge drinking (Kuhn, et al., 2008). The majority of concerns were about smoking as the primary method of administration and the social and legal consequences associated with using an illegal drug. Opinions held by cannabis users in the current study were consistent with research findings about the harm associated with cannabis use.

Theme 3. Problems

This theme included participants' reflections about the problematic use of AOD, including cannabis; six sub-themes were developed: (1) Soft drug choice; (2) Drug-related problems; (3) Dosage control; (4) Lifestyle factors; (5) Long-term cannabis use; and (6) Quitting or reducing. Participants argued that cannabis was a 'soft' drug that could be used frequently over many years without necessarily having a detrimental impact on their day-to-day functioning. Participants indicated that their use of cannabis produced minimal behavioural changes that were short-lived. In fact, nominated cannabis users argued that the effects of using cannabis were so moderate that an individual who was affected by cannabis could present as quite normal to a third party who was not aware they had been using. It has been noted that experienced cannabis users are capable of behaving in a perfectly sober fashion even when they are highly intoxicated (Greenberg, et al., 1976; Grinspoon, et al., 2005). Such a presentation is more likely in the case of the older cannabis users (parents rather than young people) as this cohort had been using cannabis for more than 20 years and would, therefore, have developed significant tolerance to the acute effects of cannabis. Family members confirmed that although they could usually tell when their parent or partner had been using cannabis, changes in their presentation and overt behaviour were minimal and subtle.

Family members noticed that intoxication was more obvious when their parent, partner, or adult child had been drinking alcohol compared with smoking cannabis. In fact, cannabis users in the current study frequently justified their use of cannabis by placing it on a par with the use of alcohol, with participants reporting that they used cannabis in the same way that alcohol is widely

used - to relax, unwind, and socialise, particularly on weekends. Because users required only a small quantity of cannabis to obtain the desired effects, cannabis was often claimed to be less expensive to use than alcohol, particularly when it was purchased by the ounce rather than the gram and when individuals grew their own. Participants stated that they physically tolerated cannabis better than alcohol and often cited the lack of a hangover the next morning as an important factor in their preference for cannabis. Participants pointed out that the desired state was achieved immediately after smoking cannabis and gradually wore off over the next few hours. In contrast, a number of alcoholic drinks would have to be consumed in succession to obtain similar effects, with peak intoxication occurring later in the evening. Participants noted that the effects of cannabis wore off (rather than increased) over the course of the evening; hence, they felt better placed to drive home after using cannabis than if they had consumed alcohol. Although this might be the case, the risk of a motor vehicle crash increases when alcohol and cannabis are used concurrently, even at doses that would be insignificant if either drug was used alone (Sewell, et al., 2009).

Family members confirmed that their parent or partner's use of cannabis had caused few, or no, significant problems and accounts of the quantity of cannabis used by the nominated parent were consistent with cannabis users' self-reports. Although there was wide variation in levels of use, with one participant using up to an ounce (\$300) of cannabis per week, most parents in the current study typically used a small quantity of cannabis most evenings and/or weekends. Hence, it seems likely that participants in the current study were able to adopt a functional and controlled pattern of cannabis use, similar to that adopted by many people who regularly drink alcohol. This is consistent with studies involving drugs that are arguably more risky, such as heroin and ATS, in which some users have also described similar patterns of controlled drug use (Forrester, 2000; Lende, et al., 2007; Waldorf, et al., 1991; Zinberg, 1984). For many participants, the distinction between problematic drug use and well-managed drug use was in the ability to continue to be a responsible well-functioning member of society.

Those that had been smoking cannabis regularly reported that they had a tolerance to it, such that the psychoactive effects were not experienced as intensely as they might be if the user was a novice. One participant argued that because she had developed a tolerance, she was able to function effectively in her job as an enrolled nurse even if she had consumed cannabis before her shift. Although nominated cannabis users often argued that they were capable of working or driving after using cannabis, they mostly refrained from doing so in the hours immediately

following their use of cannabis, which is consistent with recommendations by Sewell et al. (2009) that individuals should refrain from driving within three hours of using cannabis. Participants reported being able to control their cannabis use through limiting their use to appropriate situations, such as watching TV or gardening at home. Hence, there was a sense among the families participating in this research, that cannabis could be used without adversely affecting their life, providing it was used with conscious awareness and through prioritising responsibilities, such as those associated with employment and parenting of children.

Nominated cannabis users had often experienced a stage in their life when their use of cannabis had become excessive; in almost every case, they managed to modify their drug use without the need for professional help. Mark and his wife were previously polydrug users who had developed drug-related problems in the past and when I first interviewed Mark he informed me that he had his cannabis use well under control. Within weeks of making this statement, he was admitted to a residential drug treatment program because his use of cannabis and alcohol was jeopardising his marriage. During a second interview, after he had completed the program, Mark described how his use of alcohol and cannabis had spiralled out of control quite quickly. Mark stated that when I had previously interviewed him, he had been confident that he could manage his use of cannabis in a responsible way; he now described this as “the myth of controllability.” Mark’s wife informed me that when I first interviewed him they were both “heavy into marijuana use” despite Mark stating at the time that their cannabis use was minimal. Mark’s wife stated that he had been “in denial” and said that, rather than having their drug use under control, “it was more an illusion of control.” It is possible that other participants who continued to use throughout the duration of the study did not have their cannabis use under as much control as they liked to believe. However, it is rare for cannabis users to develop dependent patterns of use after the age of 30 (Wagner & Anthony, 2002).

Following treatment, Mark described himself as having an “addictive personality” that predisposed him toward excessive drug use. The notion of a genetic predisposition toward drug-related problems was often raised by participants and is consistent with what is known about the heritability of drug dependence, in that dependence for one drug correlates highly with dependence for other drugs (WHO, 2004). This means that some individuals are at a high risk of developing drug-related problems regardless of their choice of drug. Such individuals are less likely to be able to maintain a stable nonproblematic level of cannabis use over the long term. Participants expressed an awareness of the notion of individual differences, noting that drugs

could have different effects on different people (Cleaver, et al., 2011; Zinberg, 1984) and emphasised that some people, such as those with addictive personalities and histories of psychosis should avoid the use of cannabis. Mark and his wife (aged 34 and 36) were amongst the youngest parents in the current study; they came to realise that they fell into this category and therefore decided that it was in the best interests of their family to abstain from cannabis and alcohol, as well as other illegal drugs. The likelihood of developing cannabis dependency and other problems is increased significantly when alcohol is used concurrently with cannabis (Barnwell, et al., 2005; Midanik, et al., 2007).

Many of the young people in the current study had parents who had used other illegal drugs in the past. Family members described non-resident parents or ex-partners that were prone to violence when they were using alcohol and other drugs, often noting that when those same individuals used only cannabis, they were fine. Participants noted that even without the contribution of alcohol and other drugs, some people were at risk of developing cannabis-related problems, particularly if they were using cannabis excessively and compulsively. Nominated cannabis users adopted a range of strategies to titrate their dosage and thereby reduce the likelihood of developing cannabis-related problems. Nominated cannabis users said that they monitored their cannabis use to ensure that their rate of consumption did not increase over time and recognised the importance of having days when they abstained from using cannabis. The ability to monitor and modify one's drug use is consistent with findings that drug users who were not in treatment modified their drug use to avoid adverse consequences (Williamson et al., 1997) and that even high-dose frequent cannabis users who decided to reduce or cease their intake were able to do so with a minimum of difficulty (Kandel & Davies, 1992).

Cannabis users were aware of the development of tolerance and some used this to their advantage, finding that cannabis produced stronger effects when they took regular breaks from using it, thereby reducing the quantity and costs required to achieve the desired state of intoxication. Nominated cannabis users acknowledged that there were times when they had used cannabis excessively but the majority felt confident about their ability to manage their cannabis use in a way that maximised the benefits and minimised the risk of harm to self and others. Although long-term cannabis use is often associated with flat affect, depression, and low energy levels (Chacin, 1996; Strike, et al., 2003) cannabis users in the current study rarely described themselves in such terms. They were aware that excessive and/or frequent use, such as using throughout the day on a daily basis, would affect them in this way and generally disapproved of

such high levels of use, which they acknowledged would affect a person's ability to function in their roles of parent and breadwinner.

Although nominated cannabis users in the current study had been using cannabis for over 20 years, many did not consider themselves cannabis dependent. Nonetheless, some reported that they preferred to avoid running out of cannabis and incorporated the purchase of cannabis into their day-to-day planning and weekly budgeting. Where incomes were low, they sacrificed other personal indulgences such as entertainment, fashion items, alcohol, or new furnishings due to the high value they placed on using cannabis. Given the priority placed on using cannabis and the long-standing habitual use it is likely that some participants in the current study were in fact cannabis-dependent.

Some participants were more willing than others to recognise that they were dependent on cannabis. For a long time Madalyn was only using cannabis at night for insomnia but she realised that she was dependent on it nonetheless and decided to quit. Tess had grown up with a mother who had always used cannabis and Tess was now a single mother who was in treatment for cannabis-dependence. At 34, Tess was the eldest of the participants who were offspring of nominated cannabis users; perhaps others might also develop or acknowledge dependent patterns of cannabis use over time. Dependence is usually characterised by an unhealthy preoccupation with using, obtaining, or recovering from the drug in question, coupled by unsuccessful attempts to cease or reduce use of the drug (Grinspoon, et al., 2005). Tess was certainly dependent by this definition, and Mark and his partner stated that before becoming abstinent, they were constantly preoccupied with obtaining cannabis or money for cannabis.

Most participants claimed that they either had a ready source of cannabis or were able to manage without any until they could get hold of some. They denied being preoccupied with obtaining and using cannabis, and generally viewed such preoccupation as unhealthy. Although some participants noted mild irritability and sleep disturbances, most participants claimed that abstinence symptoms were mild or nonexistent. Wisebeck and colleagues (1996) found that 84% of high-dose cannabis users reported no withdrawal symptoms upon quitting, although the remainder experienced some nervousness, physical tension, and sleep disturbance. This would suggest that for most people abstinence symptoms are mild and transitory or nonexistent, therefore, nominated cannabis users who reported no problems going without cannabis might be correct in this assertion. Family members sometimes noticed that a parent would become more irritable when they didn't have their usual supply of cannabis available.

Although there is wide availability of high quality cannabis products, the potency of cannabis is a function of several factors, including the particular strain of cannabis that is grown (Cartwright & Mather, 2006; ElSohly, et al., 2000). Participants recognised that different strains of cannabis were available and that some were more potent than others, however, their choice of which type to use was often limited by availability. Nominated cannabis users frequently stated a preference for smoking outdoor strains of cannabis (known as ‘bush weed’) over hydroponically grown cannabis but found that the latter was usually more readily available. Some participants described bush weed as more desirable because it was usually less potent and longer lasting. It has been suggested that the potency of cannabis might be a function of the ratio of THC and cannabidiol (CBD) which has antipsychotic and anxiolytic properties that might offset some of the psychoactive effects of THC (Morgan & Curran, 2008; Potter, et al., 2008). It is possible that cannabis users who preferred indoor strains of bush weed have identified strains of cannabis that have a more desirable balance of THC and CBD. Future research to determine if some cannabis preparations are more addictive or more harmful to mental health than others would be of value from a harm reduction approach.

Young people often made disparaging comments about the inferiority of the cannabis that their parent used and the exchange of cannabis between parents and their children is further discussed in Theme 6 (Parenting). When young people used cannabis, they tended to prefer stronger hydroponic sinsemilla as they were seeking to achieve an intense level of intoxication. Their parents, who often used more frequently, preferred milder strains that were less likely to make them feel lethargic as they generally wanted to achieve a specific state of relaxation (feeling “mellow”) rather than feeling heavily stoned. It has been argued that experienced cannabis users recognise more potent forms of cannabis and are competent at self-titrating the amount they need to smoke to gain the desired effect (Associated Press, 2008; Gossop, 2007; Taylor, 2008). This was true of nominated cannabis users in the current study, who said they were able to recognise the quality of the cannabis product by smelling it and looking at it. Inexperienced users are less likely to be able to differentiate between different potencies and forms of cannabis; hence, they are at risk of becoming more intoxicated than they had intended. Different cannabis products can be compared with different alcoholic drinks; there is a lot more alcohol in whiskey than in beer and drinkers generally know this and therefore drink large mugs of beer but smaller quantities of whiskey. Hence, they adjust their drinking according to the strength of the product but because cannabis products are illegal their content is not clearly stated on packaging, hence, it

would be difficult to know whether the cannabis is high potency or low-grade. Experienced cannabis users, such as those in the current study, claimed to recognise the different products and adjust the amount they smoke on a given occasion accordingly. Novice users are at a disadvantage, hence they are at the greatest risk of experiencing anxiety after smoking potent strains of cannabis.

Some people added dried cannabis leaf from a home-grown plant to highly potent cannabis to reduce the intensity of the effects and maximise their purchase and many participants discussed the pros and cons of mixing tobacco into their joints. Some argued that this reduced the amount of cannabis that they were consuming but others were concerned that using cannabis and tobacco simultaneously led to increased cannabis and tobacco use, making it more difficult to quit either drug, ideas that are borne out by recent research (Akre, et al., 2010; Copeland, et al., 2009; Patton, et al., 2005). Participants noted that when cannabis was of poor quality they would have to smoke greater quantities to reach the desired state of intoxication. Hence, the use of weaker strains could increase smoking-related harms because more of the product has to be smoked to achieve the same result as smoking a small quantity of high-grade product.

Methods of delivery influence how much of the psychoactive product is inhaled and there are a variety of smoking implements available, such as different types of water bongs and dry pipes. Young people and those who were not cigarette smokers tended to prefer the use of a bong because a joint was considered wasteful if it was not diluted with tobacco or shared amongst friends. Nominated cannabis users who smoked joints by themselves, often smoked half a joint and saved the rest for later to avoid being excessively stoned and wasteful of the product. On the one hand, some people argued that it was safer to use a bong because the smoke was cooled before it entered the lungs and some of the toxins were filtered out into the water chamber. On the other hand it was pointed out that using a bong contributed to increased cannabis consumption because it was effortless and readily accessible compared with the task of preparing a joint. Nominated cannabis users were worried about the younger generation's use of 'bucket bongs,' a method of cannabis consumption that pushes the smoke into the lungs more forcefully and minimises loss of smoke. Smoking 'buckets' was a method of cannabis delivery commonly reported by young people in the current study. It is a method associated with bingeing as it produces rapid and intense intoxication (Delahunty & Putt, 2006). This method of consumption, particularly in the context of alcohol or other drug use, is likely to increase the risk of experiencing undesirable effects, such as panic symptoms and psychosis.

Although the quality and quantity of cannabis consumed and the method of delivery are important determinants of the subsequent psychoactive effects, personal and physiological characteristics; expectations and previous experiences; concurrent drug use; emotional state prior to use; and the social and physical setting in which use occurs; also contribute to the subjective and neurobiological consequences associated with cannabis use (Hall, et al., 2001; O'Brien, 1996; Schneider, 2008; Tart, 1970; WHO, 1997; Zinberg, 1984). Nominated cannabis users modified their dosage to minimise the psychoactive effects whereas young people sought ways to increase the psychoactive effects. These different patterns of use might be compared with the use of alcohol in that when young people go out drinking they often binge drink to the point of excessive drunkenness whereas more mature adults have usually learned to moderate their level of public drinking. Young people deliberately engage in binge drinking to maximise the level of pleasure they associate with alcohol (Holt, 2008; Szmigin, et al., 2008). Similarly, young people in the current study sometimes went out of their way to maximise the psychoactive effects of cannabis by using bucket bonges and high quality potent cannabis. This pattern of use, coupled with their lack of experience and concomitant use of alcohol and other drugs puts them at increased risk of experiencing anxiety and other undesirable consequences. It also reinforces the notion that harm is associated with patterns of use rather than being a direct function of the particular drug in question.

Lifestyle choices and patterns of use play a large role in determining the likelihood that a person will experience problems associated with their drug use. Strategies used by cannabis users to minimise harm to self and family included choosing not to become immersed in a lifestyle that has, as its central feature, a preoccupation with obtaining and using drugs. Participants noted that when they were not gainfully employed, their cannabis use tended to increase due to the boredom associated with having too much spare time. Hence, employment and other interests (such as meditation) that were incompatible with cannabis use helped to minimise the risk of excessive use. It was also noted that making other lifestyle choices that were healthy, such as exercising and getting out of the house, could minimise the potential for cannabis-related harm. Participants in the current study used cannabis but they were not otherwise part of a drug-using subculture; their lives revolved around family and work rather than their drug use. With the exception of their cannabis use most participants were law-abiding citizens.

Nominated cannabis users had grown some of their own cannabis from time to time but most still had to purchase it on a regular basis. The option of growing plants in the backyard was

limited by the presence of children living at home and to those that resided in properties that allowed them a discreet site where it could not be seen by visitors or passers-by who might inform the police or steal the plant when it was ready to be harvested. Nominated cannabis users were cognisant of the fact that purchasing cannabis was essentially a criminal activity. They tended to have arrangements of a long-standing nature with people they knew well and trusted, whereas young people were more likely to acknowledge drug-seeking behaviour that involved entering the homes of acquaintances of dubious character who often sold drugs other than cannabis. To minimise the risk associated with involving them in a criminal activity most nominated cannabis users kept the details of their source of supply to themselves and did not involve other family members in their drug purchases.

Nominated cannabis users had been using cannabis throughout their adult lives and claimed that their cannabis use had remained quite steady over a long period of time (decades) or had reduced due to cannabis being less available and less socially appropriate as they got older. Family members agreed that the nominated cannabis user had maintained a stable level of moderate cannabis use. When interviewed, cannabis was the only illegal drug currently used by nominated cannabis users, however, many had histories of using a variety of other illegal drugs, typically when they were in their early twenties. Consistent with the notion that the range of drugs used by individuals reduces with increased age (Darke & Hall, 1995) there was a sense that for many parents cannabis was an 'exit' drug as it was the remaining illegal drug used by individuals whose drug use had previously been more extensive. The notion of cannabis as an exit drug is consistent with Zimmer and Morgan (1997) who described cannabis as a *terminus* drug rather than a gateway drug because the majority of cannabis users rarely use other illegal drugs.

Nominated cannabis users often remarked that they did not intend to cease their use of cannabis unless it caused significant health problems. Nonetheless, many had experienced times in their lives when they had stopped using cannabis for lengthy periods. Their reasons for stopping were varied and sometimes their means of doing so involved a radical lifestyle change. For example, Anthony was abstinent for several months after moving interstate in a deliberate attempt to get away from a lifestyle that revolved primarily around cannabis use. Anthony had recognised that a change of environment was necessary as he wanted to create a more fulfilling life for himself. Other reasons for temporarily quitting cannabis included going to hospital, going overseas, and drug testing in the workplace. Hence, people were quite attached to their cannabis use but were able to stop, at least temporarily, when they had sufficient motivation to do so.

Women who used cannabis sometimes gave up when they were pregnant but others continued to use throughout their pregnancy and when raising their children (topics that are discussed in Theme 2 Harms and Theme 6 Parenting). Some mothers only became motivated to quit using cannabis when their children reached adolescence and were likely to be experimenting with cannabis themselves. These findings are consistent with research which indicates that cannabis cessation is related to increasing age (Thomas, 1996) and becoming pregnant (Fergusson, Horwood, Northstone, & ALSPAC Study Team, 2002). When participants wanted to stop using cannabis they found that this sometimes necessitated changing their routines and social circles, and learning new ways to relax and keep occupied.

Overall, nominated cannabis users argued that they used cannabis judiciously, in the same way that many people are able to drink alcohol regularly without developing problematic drinking. Hence, it was important to understand the harm reduction strategies used by nominated cannabis users to reduce the likelihood of problems arising through their use of cannabis. The views of family members were useful in determining whether such strategies were effective or not. The children of cannabis users tended to hold attitudes toward cannabis that were similar to their parents with young people also believing that they were capable of managing their cannabis use. The use of cannabis and other drugs by young people in the current study is detailed further in Theme 4 (Attitudes). Children that didn't use cannabis were also able to articulate the difference between drug use and problematic drug use. There was a sense among the families participating in this research that cannabis could be safely used on a regular basis with minimal negative effects on family life. Participants in the current study did not belong to a drug-using or criminal subculture; their lives revolved around family and work, rather than their drug use, and they tended to be responsible and well-functioning members of society.

Theme 4. Attitudes

Empirical data indicates that when parents use drugs their offspring are also more likely to do so (Agrawal & Lynskey, 2009; Anderson & Henry, 1994; Cadoret, et al., 1986; Croughan, 1985; Dishion, et al., 1988; Fawzy, et al., 1983; Gfroerer, 1987; Hawkins, et al., 1992; Hochman & Brill, 1973; Hopfer, et al., 2003; Johnson & Leff, 1999; Kandel & Davies, 1992; Meller, et al., 1988; Merikangas, et al., 1992, 1998a, 2009; Mirin, et al., 1991; Mitchell, et al., 2001; Smart & Fejer, 1972; Turiel, 1989). Hence, Theme 4 incorporated two broad sub-themes related to interfamily attitudes toward drug use: (1) Modelling and drug-related behaviour and (2) Normalisation of cannabis use. Nominated cannabis users in the current study represented an older generation of

cannabis users who were introduced to cannabis when they were in high school or university. Early initiation and early progression to regular use contributes to psychosocial problems and poor educational outcomes (Kandel & Davies, 1992; Solowij & Grenyer, 1995), however, despite their long-term use of cannabis nominated cannabis users were mostly responsible and well-functioning individuals, some of whom had overcome considerable social problems (i.e., domestic violence, partner's problematic AOD use).

Consistent with prior research (Kwong, et al., 2010; Ross & Davies, 2009) this study found that older siblings and peers were key role models in the uptake and use of cannabis, which was usually initiated between the ages of 14 and 16 for both nominated cannabis users and the younger cohort of users' children. Although children under the age of 13 years (n=6) were adamant that they had no intention of ever trying drugs, many of the young people (aged between 14 and 34) had significant drug use histories and their introduction to illegal drugs was often impulsive and opportunistic. The failure of public health and education to convince young people not to use drugs is discussed further in Theme 5 (Communication). Early initiation and regular cannabis use during adolescence are associated with increased risk of future problematic drug use, delinquency, lower levels of education, criminal behaviour, and impaired mental health (Copeland & Swift, 2009; Kandel & Davies, 1992), however, this was not true of the young people in the current study. They were positively and actively engaged with their families, their pursuit of education, and their communities.

As described by Pearson (2001) and Reilly, et al. (1998) the use of cannabis was a routine part of daily living in the families interviewed for this research and individuals who were parenting said that they made ongoing decisions about when it was appropriate or not to use cannabis. Consistent with Thomas (1996) participants reported a high degree of acceptance of cannabis use by their family and friends. Thus, cannabis use was normalised in some families and socially acceptable within some social circles, which would contribute to the perception held by most participants that cannabis was less harmful than other illegal drugs, which were rarely, if ever, deemed socially acceptable.

When children are aware of their parents' and others' drug use, role modelling occurs and there is a process of social reinforcement in which drug-related values and behaviours are learned (Kandel & Davies, 1992; Klee, 1998). Hence, young people seemed to take their cues from their parent's lead and tended to have few concerns about the use of cannabis by their parents or others. The exception was children under the ages of 13, whose primary source of drug

information was from television, books, the internet, and school; they knew cannabis was “a drug” and that “using drugs can kill you.” Hence, they were often worried by their parent’s cannabis use but did not usually feel able to discuss this with their parent; this is explored further in Theme 5 (Communication). Adolescents were found to be less likely to become involved in deviant or delinquent activities, such as using cannabis, if their parents had expressed views about how undesirable this would be and if there was a positive bond between parent and child (Kandel & Davies, 1992). In the current research, there appeared to be a positive parent-child bond coupled with the modelling of permissive attitudes toward cannabis use. It follows that children of users would hold views similar to their parent but this was not always the case, especially in families where a parent had used cannabis excessively or there had been other AOD problems.

Many of the young people had a liberal approach to cannabis and many used cannabis themselves or had done so in the past, with some admitting to having taken some of their parent’s cannabis without their parents’ knowledge. This tended to occur when children were still in high school or sometimes in primary school. Parents tended to believe that the use of cannabis by their children was unrelated to their own use of cannabis, arguing that drug use was developmentally normal and that young people had made their own choices independently. Their children disagreed, with many stating that their parent’s liberal attitude toward cannabis was, in fact, a significant influence on their own choice to use cannabis. They also said that knowledge of parental cannabis use had made it easier for them to use cannabis without having to worry about significant consequences from their parents. Although they did not condone or encourage their children to use cannabis parents acknowledged that they were not in a position to come down too hard on discovering the use of cannabis by younger family members. Many of the young adults who used cannabis had also used ATS and, unlike their parents but consistent with international research, they under-estimated the risks associated with smoking ATS (WHO, 2004). The majority of families in the current study were blended families and young people sometimes self-selected into a home environment that was more tolerant of their desire to use cannabis by choosing to live with a parent who was more permissive than the other. Young people’s attitudes toward drug use seemed to be influenced as much by their peers, siblings, and extended community as they were by their parent’s use of drugs.

Nominated cannabis users had thought carefully about their use of cannabis, which they argued was a well-informed choice; conversely, use of cannabis by the younger generation of participants was often opportunistic, impulsive, and peer-driven. Parents were particularly

worried about the pattern of cannabis use adopted by the younger generation, which often involved binge drinking and polydrug use, which are known to be hazardous patterns of use, particularly for adolescents (Kuhn, et al., 2008). Many parents were worried about their children bingeing on alcohol and drugs, whereas young people were generally confident that their use of AOD was under control and would remain so. Despite having a good relationship with their children most parents were naïve about the extent of their child's use of other illegal drugs.

According to Kandel and Davies (1992) adolescents are more likely to use mood altering drugs if their parents and peers do so but rather than replicating the form of drug use undertaken by their parents, young people transpose it into something that is more acceptable to their lifestyle. An example of this might be the way that young people used bucket bongs and high quality cannabis rather than smoking less potent cannabis in small joints, like their parents usually did. This is consistent with Australian research indicating that younger cannabis users prefer to smoke the strongest part of the plant (Hall & Swift, 2000) and prefer to use a bong because it delivers maximum THC, is fast acting, and is quicker to prepare than a joint (Copeland, et al., 2005). The quantity of cannabis consumed at any one sitting has been found to decline significantly after the age of 22 (Kandel & Davies, 1992) and it was the case that when young people used cannabis they did so less frequently but used much larger quantities on a given occasion than what their parents did. Hence, patterns of cannabis use by the younger generation were more consistent with the use of cannabis by their peers than being modelled on the way their parents used cannabis. In seeking a more intense experience young people are placing themselves at greater risk of harm.

Theme 5. Communication

This theme concerned communication within families as well as other forms of communication that contributed to children's understanding about drug use. The data were organised into three sub-themes: (1) Children's awareness; (2) Conversations about drug use; and (3) Other information. Consistent with research involving the use of other types of illegal drugs (Barnard & Barlow, 2003; Kearney, et al., 1994; Klee, 1998; Klee, et al., 2001) many parents in the current study tried to keep their cannabis use hidden from their children. Barnard and Barlow (2003) found that parents who used opioids had a limited capacity to keep their drug use under control and thereby hidden and McKeganey, et al. (2002) argued that over time dependent drug users lose the ability or motivation to maintain a front of normalcy. Similarly, Barnard and Barlow (pp. 47-48) suggested that, *"it is probably only at the beginning of most people's drug career that*

they are able to keep their drug related needs from seeping into and controlling almost every aspect of their life." In the current study, nominated cannabis users reported that they had kept their drug use under control for periods in excess of 10 and 20 years. Furthermore, their stories suggested that any risk of dependency and drug-related problems had been higher when they were younger, particularly at the beginning of their cannabis using careers. In contrast to the risk for alcohol dependence, which continues throughout the middle years of adulthood, the risk for cannabis dependence peaks at about the age of 17 and very few cases of cannabis dependence are identified in people over the age of 30 (Wagner & Anthony, 2002). Therefore, when assessing the risk for future problematic drug use it is important to consider drug-specific research and the broader context in which the drug is used.

In most families there was little, if any, discussion of their parent's use of cannabis even in families that usually talked about most things quite openly and in families where children were clearly aware of their parent's cannabis use. Similarly, in families where parents were addicted to opioids, even when parental drug use was a "*central organising feature of the household*" it was not a topic that was discussed within or outside the family (Barnard & Barlow, 2003, p. 48). Parental use of cannabis was a topic that parents and children alike usually avoided. Children generally said they did not want to talk about it with their parent and despite having their parent's explicit permission, in some cases children refused to acknowledge to the researcher that their parent used cannabis. In other cases it was pointed out that there had been no need to talk about a family member's use of cannabis because it had not caused any problems. In some families, parents purposely sat their children down and told them not to tell anyone about the parent's use of cannabis. In any case, most children said they worked out for themselves that it was best to keep their parent's use of cannabis secret. Children are often reluctant to share their family problems with others and this is related to a sense of loyalty and protection of family members, as well as a fear that they might be taken away from their parents or punished by their parents, if they tell others what is going on at home (Corbett, 2005; Magura & Laudet, 1996). Hence, as borne out in the current study, when children have worries about their parent's use of drugs they are unlikely to be able to share their worries with anyone other than perhaps their siblings.

Children in the current study tended to gradually assimilate and process ideas related to their parent's use of cannabis over time, rather than learning of it in a specific moment of discovery or communication. Children were often aware of their parent's cannabis use from a younger age than their parents realised and many said they had "always" known about it,

although they did not really understand that their parent was using an illegal drug until they were older. Barnard and Barlow (2003) found that the discovery of their parent's opioid use had huge emotional and behavioural consequences for children and there have been other reports of children experiencing anxiety and fear about their parents' AOD use (Harbin & Murphy, 2000). Children learn from school, the media, and other sources, that drugs are harmful and can kill you (Barnard & Barlow, 2003).

In the current research, the young people who were over the age of 13 rarely viewed their parent's cannabis use as a major cause for concern. However, young people frequently recalled becoming worried about their parent's cannabis use after receiving drug education at school and before they had any personal experience of using cannabis. Younger children (aged 8 to 12) had very limited cannabis-related knowledge and had a concrete understanding along the lines that cannabis was a drug that was illegal and it could kill you. Therefore, children under the age of 12 tended to have concerns about their parents use of cannabis but were unable to directly communicate this to their parent or other adults. Although cannabis contributes to car crashes and chronic health problems, these harms are more likely to manifest in the context of polydrug use. Most people who use cannabis are not 'drug addicts' and death is rarely, if ever, attributed purely to excessive cannabis intoxication. Understanding these facts might alleviate some of the worries that children have about the consequences of their parent's cannabis use.

Many parents in the current study were concerned that because the media and health authorities over-stated the dangers of cannabis use young people might also dismiss safety messages about the risks of using more dangerous drugs. Young people confirmed that their exposure to cannabis had, in fact, led them to question the risks associated with potentially more harmful drugs, such as ecstasy and ATS. This is consistent with the thesis of Kuhn, et.al, (2008) which suggested that current efforts to educate people about the effects of AOD are often inadequate and misdirected, failing to inform the public about important neuroscientific developments in the understanding of drug use, addiction, and specifics of risk. When people are simply told that drugs are dangerous and they subsequently learn otherwise, they realise that they have not been told the whole truth and those in authority lose credibility (Kuhn, et al., 2008) and the entire message about drugs is discarded (Spooner, et al., 2001). Hence, it is important that young people have access to evidence-based facts about drugs, rather than oversimplified statements about risk.

The current approach of using scare tactics to make young people believe that drug use is something dangerous to be avoided has the potential to be counterproductive in reducing drug-related harm (Kuhn, et al., 2008). When individuals become aware of people who have consumed various combinations of drugs over a period of many years yet do not appear to have developed drug-related problems, this provides a false sense of security about the acute and long-term effects of drug use, which can pose considerable risks, including death and brain damage, particularly when certain combinations of drugs are used at the same time (Kuhn, et al., 2008). The recreational use of drugs, particularly by young people, is unlikely to change and young people in contemporary Western society probably have a more sophisticated understanding of drugs than previous cohorts. They have access to unlimited sources of information via the internet and live in a society in which new chemical advances contribute to increased use of medications, as well as increased experimentation with 'designer' drugs used for recreational purposes (Kuhn, et al., 2008).

Young people in the current study sometimes held the perception that smoking ATS (e.g., crystal methamphetamine) was not much different to smoking cannabis; their lack of differentiation between these two illegal drugs puts them at risk of serious harm through use of ATS, which was often available from the same sources who sold them cannabis. Education and drug prevention campaigns are most effective when they are seen as credible by their audience (O'Connor, 1990). When educational approaches ignore the pleasure factor and other motivations for drug use they risk being dismissed by the target audience who may consider the message to be overly negative, scare mongering, or irrelevant given their own experience (Moore, 2008). Young people can expect to be introduced to cannabis during their high school years between the age of 13 and 17, which is a period when individuals are arguably most vulnerable to the development of problematic cannabis use. Hence, the process of learning about recreational drug use needs to commence before children enter high school so that adolescents are in a better position to make a relatively informed choice about if and when they should use certain drugs. It might assist in the reduction of harm if adolescents had accurate and reliable education about drugs so that they might understand, for example, the different risks that might be associated with smoking cannabis compared with smoking methamphetamine.

Parents recognised that young people would probably experiment with cannabis at some stage and in giving advice to their children they emphasised that initiation into cannabis use should be delayed for as long as possible, which appears to be good advice given the current state

of knowledge about cannabis-related risks. Some parents said they would rather their child obtained cannabis from them than from a stranger and would prefer that cannabis initiation occurred in the safety of the family home. Hence, these parents were keen to adopt a harm reduction approach rather than insisting that their children simply abstain from using drugs. Parents argued that the best way to minimise drug-related harm was for the young people to have accurate non-judgemental information and parents believed that they were in the best position to educate younger family members about drugs. Nonetheless, there was little direct communication within families about the use of illegal drugs by parents and young people were not entirely open with their parents about their use of illegal drugs. Young people were unwilling to take advice from their parents about drug use, despite parents in the current study having experience with various drugs and an accurate understanding of the risks associated with specific drugs and patterns of use.

Velleman and his colleagues (2005) have argued that effective drug prevention strategies involve equipping parents with skills in effective parenting and family communication, as well as providing them with accurate information about drugs and emphasising the need for them to model the attitudes and behaviour they wish their children to adopt. Primary school-aged children might benefit from harm reduction education aimed at demonstrating the difference between controlled and problematic drug use. This might assist children who are at risk of harm or neglect due to their parent's use of drugs to know when they should seek help outside the family and what the consequences of doing so might be. High school-aged children would benefit from having a clear understanding of the acute risks and rates of dependency associated with specific drugs.

Theme 6. Parenting

In this theme parental perceptions were directly compared with the views of partners, young people, and children to get an idea of whether the parent's long-term cannabis use had affected his or her ability to provide effective and consistent parenting. Although some new data is introduced here, particularly descriptions of family life from the point of view of children and young people, this overall theme largely drew on and consolidated data from the other five themes: data about the potential benefits, harms, and problems identified in Themes 1, 2 and 3; and ideas contained in Theme 4 about the intergenerational transmission of liberal attitudes toward drug taking; and ideas from Theme 5, which explored the development of children's understanding of their parent's cannabis use. Hence, this theme amalgamates data incorporated

in the themes described above but with the focus being specifically on outcomes associated with parenting. Within this theme, the data were organised into four sub-themes: (1) Positive effects; (2) Adverse effects; (3) Outcomes; and (4) Boundaries. Data related to outcomes included parents' descriptions of themselves as parents, and their descriptions of their children, their family life, and their values. Children's descriptions of their cannabis using parent, their family, and their lifestyle, such as involvement in extra-curricular activities, also provided data that attested to outcomes in the family.

The majority of parents who were using cannabis were convinced that it had little or no detrimental effect on their overall parenting. For these parents, the overall personal benefits, as detailed in Theme 1, arguably outweighed the potential harms, hence, they had continued to use cannabis for periods in excess of 20 years. Some parents believed that their use of cannabis had benefits that indirectly or directly helped them to be a better parent. Some argued that they were able to control their cannabis use whereas had they used an alternative drug, they might have developed problematic alcohol or other drug use that they thought was more likely to be detrimental to their families. Direct benefits included being more agreeable, more playful, and feeling less stressed. In some cases cannabis was claimed to have a positive effect on intimate partner relationships, communication with teenagers, and the ability to remain calm during marital or parenting challenges. Parents described being more tolerant of partners and children and finding it easier to avoid arguments when they were stoned. Nonetheless, parents usually emphasised that frequent or excessive use of cannabis was likely to create problems and should be avoided.

Parents acknowledged that they were more tolerant of misbehaviour when they were stoned and children also noted that their parents handled day-to-day arguments between siblings differently depending on whether they had been using cannabis or not. Parents generally recognised that using cannabis could detract from providing adequate supervision of children and they said that they tended to refrain from using cannabis until such time as the children were either asleep, at school, or outside of the home. Nonetheless, young people reported that, as children, they had recognised that their parent's mood was elevated when they had been smoking cannabis. From the age of about 9 or 10 children said they had taken advantage of this observation by making requests of their parent when the parent was under the influence of cannabis. Even when children didn't know exactly what was going on they realised that their parent was in a state of mind in which they were more likely to permit treats, such as sleepovers

or staying up later. Parents and children both said that they were usually aware of where their children were and what was going on for them and were not necessarily any less strict than other parents.

Some parents acknowledged that they became impatient and irritable toward their children when they did not have ready access to cannabis. Other parent's denied experiencing withdrawal symptoms but in some cases their children disagreed, noting their parent's subtle mood changes and attributing them to either having used cannabis or not having cannabis available. It was generally acknowledged that using cannabis could impact on whether parents were responsive to the social and emotional needs of their partners and children. Participants who had recently quit using cannabis were more likely to recognise that their cannabis use had been detrimental to their parenting with one couple describing a prior preoccupation with obtaining and using cannabis. Some participants believed that their parent's use of drugs had influenced the parent's ability to be emotionally present and to deal effectively with painful issues that arose in the family. Hence, while children's physical needs, such as accommodation, meals, and clothing were met, the use of cannabis by parents sometimes interfered with their ability to be more responsive to their children's social and emotional needs, although not to the extreme level that would constitute serious child neglect.

Families in the current study were of varying SES and in families on low incomes, particularly in single-parent families, parents and children both identified that there could be financial implications when a parent was spending a significant amount of their income on purchasing cannabis. Although the children in these families said that they did not miss out on essentials, such as food, shoes, or school uniforms during their childhoods, some children reported missing out on extras, such as dancing or trumpet lessons and they were annoyed about this because they knew that their parent continued to spend money on cannabis at the time. Parents were acutely aware of their weakness for cannabis and guilt was a frequent topic, particularly in families living on low incomes. Nonetheless, parents usually justified spending money on cannabis by explaining that they went without other personal items, such as going to a hairdresser, eating at a restaurant, or purchasing cosmetics. Parents also mentioned that they felt guilty about setting a poor example to their children by not abstaining from cannabis use and for feeling like they influenced their children's subsequent choice to use cannabis, or for using cannabis when they were pregnant.

Although some parents found that using cannabis re-energised them and helped them get on with mundane household tasks that need to be completed on a daily basis, such as preparing meals or washing dishes, most acknowledged a tendency to become lazy and unmotivated when using cannabis. Some parents described how using cannabis interfered with their motivation to complete housework and childcare tasks such as bathing or feeding their children in a timely fashion. They were also aware that using cannabis had the potential to impact on supervision, discipline, and safe transportation of children. Participants reported that it was usually wise to complete important tasks related to parenting and employment before indulging in the use of cannabis. Typically, a parent was described as having been tired or forgetful sometimes but not abusive or neglectful. For example, one individual recalled having to get herself up in the morning and make her own school lunch because her mother was still sleeping and she found that her mother sometimes failed to collect her from school in a timely fashion. This young person stated that she had no doubt that such instances were more likely when her mother was preoccupied with problems and therefore using more cannabis. As they got older, most children tended to be more forgiving about such things and often emphasised that their parent's use of cannabis had helped them to cope with particularly stressful life events and was, on reflection, not such a big deal. Some young people, particularly those who did not use cannabis themselves, viewed their parent's use of cannabis as unhealthy and undesirable.

Although parents said that they mostly limited their use of cannabis to times when they had few demands on their cognitive processes they did not always perceive the need to refrain from driving a motor vehicle after using cannabis. Although cannabis intoxication impairs motor skills, co-ordination, and reaction times (Beardsley & Kelly, 1999; Kelly, et al., 2004; Sewell, et al., 2009), some participants argued that they drove more slowly and carefully after using cannabis. Drivers have indeed been found to drive more slowly and carefully under the influence of cannabis (Sewell, et al., 2009), however, this says nothing about their ability to respond quickly should they need to do so in the event of encountering something unexpected when driving. Most parents stated that they usually waited until the acute and immediate effects of cannabis intoxication had passed, however, those who use cannabis on a daily basis have probably not been at their peak performance when driving their children.

Although some parents acknowledged that there had been various problems in their families, these were not usually a consequence of the parent's use of cannabis and most respondents thought they had done a 'good enough' job of raising their children. Despite the

range of harms mentioned above children generally indicated that overall their parent's cannabis use had resulted in little harm to the family. Children who were still attending school described "normal" families where they were engaged in the usual activities of childhood, such as attending school, doing homework, using the computer, watching television, playing, and reading books. Parents emphasised values such as teaching respect and modelling appropriate behaviours as key elements in effective parenting. Children and young people alike described reasonably well functioning families in which the importance of children's education and extracurricular activities was valued and encouraged by parents. The emphasis placed on obtaining a "good" education by parents in the current study suggested that this was a protective factor, particularly in low income families, where parents nonetheless insisted that their children attend the best schools possible, including those in the private domain. Children often spoke of the extra-curricular activities that they were involved with, such as ballet, music, martial arts, sports, and building computers. Adolescents and young people talked about wanting to do well in their school and university exams. Young people were often at university or had completed a degree and were involved in professions such as nursing and engineering. Others had apprenticeships, part-time jobs, and clear goals for the future. Hence, the children of cannabis users in the current study tended to be positively and actively engaged with their families, their pursuit of education, and their communities. They tended to be socially engaged and working toward healthy goals.

The idea of 'harm overlooked' arose from the researcher's observation that family members sometimes failed to recognise that the parent's use of cannabis might have had unforeseen negative impacts on offspring or partners despite their views to the contrary. The idea of potential harm going unrecognised was essentially about highlighting discrepancies in family members' stories that suggested a denial of any responsibility for the intergenerational transmission of permissive drug-taking attitudes or other drug-related harm. Some mothers had used cannabis when they were pregnant and some had smoked cannabis daily when they were raising their children. They argued that this didn't seem to have caused any harm to offspring. Some parents were (or had previously been) worried about the use of cannabis, alcohol, and other illegal drugs by their young adult children. Nonetheless, most parents viewed the use of drugs by the younger generation as a normal stage in their development rather than a major cause for concern but they worried that their child might be vulnerable to developing drug-related problems in the future. Although young people used alcohol, cannabis, and other drugs, only one of the young people in the current research acknowledged current drug problems and she was attending

AOD counselling to reduce her cannabis use. Parents were proud of the way that their children had “turned out” and young people in their family seemed to be happy enough and expressed few concerns about how they had been parented.

In some cases, the potential for harm associated with cannabis use was perhaps overlooked by cannabis users. For example, individuals who expressed that it was inappropriate to expose children to cannabis smoke had often done so, particularly in the days when their children were not yet attending school. One individual smoked inside the bedroom of a small flat he shared with his 12-year-old son and some parents smoked cannabis outdoors when children were nearby. Most parents argued that their use of cannabis had not contributed to their children’s use of cannabis and other drugs, suggesting that this was simply a normative aspect of growing up. Nonetheless, young people often reflected that their parent’s permissive attitude toward cannabis had definitely been a factor that influenced their own use of cannabis, which subsequently gave them ‘confidence’ to also try other drugs that were arguably more risky. Children often recalled that their earliest introductions to cannabis had often involved ‘stealing’ cannabis from a parent. Therefore, most parents argued that their cannabis use had been harmless, however there was sometimes a direct relationship between children’s early initiation into cannabis use and their parent’s use of cannabis.

One potential area of harm that was overlooked by parents was the confusing emotions that a child might feel about the use of cannabis by a parent. Some children, particularly those aged between 8 and 12 years were worried about their parent using cannabis and some were angry about it. Children were acutely aware of the stigma associated with drug use and such stigma contributes to discrimination against the children of drug users, creating a barrier that makes it difficult for affected children to seek help (WHO, 2004). Two children refused to acknowledge that their mothers used cannabis despite all other family members confirming that they were definitely aware of their mother’s cannabis use and in one case the child had been known to voice strong feelings about it. This child complained that her mother didn’t give them pocket money, failed to pack their school lunches, didn’t keep up with the laundry, and let her wear clothes that she thought other mothers probably would not approve of. Due to denying that her mother was a cannabis user, this child was not in a position to link these complaints to drug use. Her brother was able to speak of his anger about the use of drugs by both of his parents. His greatest concern was that his mother was growing a cannabis plant, which might attract the attention of the police, who might arrest her and remove him from his family, which he did not

want to occur. Whereas younger children expressed worries about their parent's cannabis use, personal experience and a more sophisticated understanding that came with adolescence seemed to alleviate such worries. One older child had resolved his anger issues through counselling and now recognised that his mother's use of cannabis had helped her to cope with a large number of stressors, including domestic violence, discovering that her husband was using heroin, getting divorced, and raising five children by herself with no family support. As they got older, young people seemed to be much less concerned by their parent's cannabis use and their concerns were more directly related to smoking as the method of administration.

Quite a few of the children and young people in the current study were from blended families and the differences between their father's home and their mother's home was often the first and most significant thing that was mentioned when they were asked to tell the researcher what it was like living in their particular family. As each parent managed his or her home and childrearing differently, the children essentially were raised by two individuals with different values who parented and ran their respective homes in different ways. Some young people took advantage of the fact that their parents had different rules and chose to live with the parent who was more permissive, especially in regard to cannabis use. Even when children were aware of their parent's use of cannabis, most of the time parents avoided actually smoking in front of their children. Similarly, even when parents knew that their young adult children were using cannabis, young people and their parents rarely smoked cannabis together. Parents and young people acknowledged that this had only occurred on rare or special occasions and most were uncomfortable about it.

Some parents preferred that their teenagers experiment with cannabis in the safety of their own home and some wanted to be able to model appropriate use of cannabis but struggled with this given its illegal status. Although parents had a lot of knowledge about the use of specific drugs there was little communication between parents and children about drug use and young people had limited understandings of the risks associated with various illegal drugs. When young people were drinking or using cannabis they preferred to be amongst peers rather than with their parents. Parents and children alike mostly felt the need to keep within the boundaries of a parent-child relationship and did not want to become "stoner buddies" with each other, irrespective of whether each party separately used cannabis. Although some mothers and their adult daughters occasionally enjoyed smoking cannabis together most expressed the importance of continuing to be a parent rather than a friend to their children as they entered adulthood.

Most parents felt the wisest thing was for their children to delay using cannabis for as long as possible and parents generally encouraged their children to at least wait until they were 18 years old.

Cannabis users have been portrayed as stereotypically lazy, unhealthy, deviant, and criminal (Osborne & Fogel, 2008; Zimmer & Morgan, 1997). This did not appear to be the case within the current sample, whose lifestyles revolved around legitimate employment and a functional family life, in which the children's needs were predominantly met. Irrespective of parental drug use, adverse outcomes for children are mediated by inconsistent, threatening, and harsh parental discipline, inadequate supervision, and weak parent-child attachment (Kandel & Davies, 1992). Although not formally measured, in these families there was a sense that their parenting had, in most cases, been "good enough". Parents and children had healthy warm relationships and family members did not describe any major adverse consequences related to the parent's use of cannabis. Theme 7 is intended to articulate the attitudes and behaviours that have been useful in preventing cannabis-related harm these families.

Theme 7. Harm Reduction Strategies

Through careful analyses of the data, harm reduction strategies were identified targeting five aspects of harm: (1) Dosage control; (2) Dependency; (3) Acute risk; (4) Long-term harm; and (5) Harm to children. Dosage control was about titration of the cannabis dosage and harm reduction strategies involved limiting the quantity of cannabis used on any one occasion; using less potent varieties of cannabis; avoiding methods of delivery, such as bucket bong, that produce rapid intense intoxication; and by avoiding the use of alcohol or other drugs when using cannabis. For parents in the current study the goal of using cannabis was usually to induce a pleasant state of mild relaxation, whereas young people used larger quantities of more potent cannabis as they were usually seeking a state of heavy intoxication.

It has been argued that experienced cannabis users are able to recognise more potent forms of cannabis and are competent at self-titrating the amount they need to smoke to achieve the effect they desire (Associated Press, 2008; Gossop, 2007; Taylor, 2008). This was also the case in the current research; individuals stated that if the cannabis was potent, they smoked less. For example, some individuals reported that when they smoked a joint, they would smoke only half and save the other half for later to avoid being excessively stoned and to avoid being wasteful of the product. Some participants had experimented with ingesting THC in baked forms, (to

minimise smoking-related harms) but they tended to find that ingesting THC did not produce the desired effect of achieving an immediate sense of relaxation and calmness but might rather result in feeling heavily stoned and a prolonged sense of paranoia or. Furthermore, there was the risk that baked goods might be consumed unknowingly by children or visitors to the home. Hence, the smoking of cannabis in a pipe, bong, or joint remained the primary method of administration. Some argued that it was safer to use a bong because the smoke was cooled before it entered the lungs and some of the toxins were filtered out into the water chamber. Nominated cannabis users had concerns about the use of bucket bongs,' a method of cannabis consumption that pushes the smoke into the lungs more forcefully and minimises loss of smoke. Smoking 'buckets' was a method of cannabis delivery commonly reported by young people in the current study. It is a method associated with bingeing as it produces rapid and intense intoxication (Delahunty & Putt, 2006). This method of consumption, particularly in the context of alcohol consumption or other polydrug use, is likely to increase the risk of experiencing undesirable effects, such as panic symptoms and psychosis.

A number of participants said that they actively sought and preferred outdoor strains of cannabis (known as 'bush weed') over what they perceived to be the more potent hydroponically grown cannabis, which was more widely available. However, others argued that bush weed was more desirable because it was just as potent and longer lasting. Although experienced cannabis users might be able to recognise more potent forms of cannabis and then adjust the amount they smoke to achieve the desired state (Associated Press, 2008; Gossop, 2007; Taylor, 2008), Australian research does not support the notion that hydroponic cannabis is necessarily of a higher potency than outdoor (bush) strains (National Cannabis Prevention and Information Centre (NCPIC), 2008; Stafford & Burns, 2011). Nonetheless, users insisted that this was usually the case. Very little research has examined this issue and future research might be able to establish whether some types of cannabis are less potent and therefore potentially safer to use. Some participants pointed out that when cannabis was of poor quality they would have to smoke greater quantities to reach the desired state of intoxication. Hence, the use of weaker strains could increase smoking-related harms because more of the product has to be smoked to achieve the same result as smoking a small quantity of high-grade product.

As well as controlling the amount of cannabis consumed on a given occasion, participants also identified a few harm reduction strategies intended to minimise the risk of developing a dependent pattern of use. As experienced cannabis users, participants were aware of the

development of tolerance and some used this to their advantage, finding that cannabis produced stronger effects when they took regular breaks from using it, thereby reducing the quantity and costs required to achieve the desired state of intoxication. They also claimed that they monitored and modified their patterns of cannabis use over time to minimise the likelihood of experiencing adverse effects. Such claims are consistent with the findings of Kandel & Davies (1992) who found that high-dose frequent cannabis users who decided to reduce or cease their intake were able to do so with a minimum of difficulty.

Many participants discussed the pros and cons of mixing tobacco with their cannabis. Cannabis users often smoke tobacco, either separately or concurrently, and a substitution phenomenon often occurs such that one will be smoked when the other is unavailable (Akre, et al., 2010). This was true of some nominated cannabis users in the current study, who spoke about a complicated relationship between nicotine dependence and the use of cannabis, which is borne out by recent research. The use of cannabis and tobacco simultaneously can lead to increased use of both cannabis and tobacco, making it more difficult to quit either. (Akre, et al., 2010; Copeland, et al., 2009; Patton, et al., 2005). Hence, efforts to minimise cannabis use through the addition of tobacco might well be counterproductive.

Harm reduction strategies were also aimed at reducing acute risks associated with cannabis intoxication. Such risks were reduced through avoiding the use of cannabis when already experiencing negative mood or heightened stress; through prioritising work and other responsibilities over cannabis use; and by not driving a motor vehicle when under the influence of cannabis. Participants in the current research emphasised that it was important to monitor their mood before using cannabis because they recognised that using cannabis was contraindicated if they were feeling depressed or anxious to begin with. Most parents also indicated that they refrained from using cannabis until after their children were in bed for the night or to other times when there were few demands on their cognitive processes. Nonetheless, they did not always perceive the need to refrain from driving a motor vehicle. Cannabis intoxication is considered to have a deleterious effect on motor skills, co-ordination, and reaction time (Beardsley & Kelly, 1999; Kelly, et al., 2004; Sewell, et al., 2009) and although participants were aware of such findings, some argued that they drove a motor vehicle more slowly and carefully after using cannabis, which is also borne out by research (Sewell, et al., 2009). Most parents in the current study reported that it was important to refrain from driving or work-related tasks in the hours

immediately following their use of cannabis, which is consistent with recommendations by Sewell et al. (2009) that individuals refrain from driving within three hours of using cannabis.

Some harm reduction strategies were aimed at reducing the risk of long-term harm. Participants emphasised that while the use of cannabis could be helpful in managing stress, excessive use of cannabis in the context of a failure to address problems would increase the risk of poor outcomes. Hence, an important harm reduction strategy involved the use of active problem-solving rather than simply using cannabis as an avoidant coping strategy. Another strategy for minimising harm was to make healthy lifestyle choices, such as meditation, exercise, and socialising. Nominated cannabis users tended to be gainfully employed and engaged with a range of healthy interests (e.g., meditation, sport, university studies) that were often incompatible with using cannabis. Participants noted that when they were not working, they were at a higher risk of using cannabis excessively, through having too much time on their hands.

For nominated cannabis users in the current study, their use of cannabis served as an alternative to the recreational use of alcohol and was just one aspect of what might be construed as a fairly balanced life, revolving around work, family, and leisure. They were not part of a broader drug-using subculture, however, the social and legal consequences that could arise through being viewed as a drug user posed a unique set of problems as compared with using alcohol. In terms of reducing such risks, older participants exercised considerable caution in terms of who they used cannabis with, and who was even aware of their cannabis use. They were careful about purchasing cannabis from people they did not know well, preferring to obtain it from sources of longstanding and to go without if they could not get it from their usual sources. Participants were aware that purchasing cannabis was essentially a criminal activity and suggested that the risk of being charged for drug-related offences represented perhaps the greatest source of potential harm. Nonetheless, they had a poor understanding of the specifics of current cannabis legislation.

The final area in which harm reduction strategies were useful was in reducing the risk of harm to children. Harm reduction strategies included ensuring that the cost of obtaining cannabis did not place the family in financial hardship and not exposing children to cannabis smoke or allowing them to travel in a vehicle when cannabis was going to be obtained. It was also deemed very important to store all cannabis, smoking implements, and baked cannabis goods securely away from children. Given how many young people disclosed to the researcher that they had

accessed their parent's cannabis supply, it was clear that nominated cannabis users perhaps did not keep their cannabis stored securely in a place that children were unable to find it.

Parents in the current study spent approximately 10% of their income on cannabis, compared with those in a cannabis treatment program who were found to spend nearly 25% of their income on cannabis (Copeland, et al., 2001). This would suggest that individuals in the current research were better able to manage their cannabis use without creating financial problems as a result. In families with low incomes, parents made choices to sacrifice other recreational or personal indulgences, such as entertainment, fashion items, alcohol, or new furnishings, due to the high value they placed on using cannabis. Participants had different ideas about how best to reduce the financial cost of cannabis. Some participants were able to grow some cannabis at home, but for most growing plants in the backyard was limited by the presence of children living at home and to those that resided in properties that allowed them a discreet site, where it could not be seen by visitors or passers-by who might inform the police or steal the plant when it was ready to be harvested. Some individuals purchased their cannabis in larger quantities (by the ounce rather than the gram) to reduce the price per gram, however, for some this was not a suitable method of harm reduction as it increased the risk of excessive use due to larger quantities of cannabis being readily availability in the home. Buying larger quantities also increased the risk of being charged as a dealer if they were caught in possession of more than a tiny amount (Robertson, et al., 1996). Those on lower incomes tended to pay a higher price per gram for their cannabis use as their limited funds would only allow for smaller more expensive purchases.

Most nominated cannabis users avoided drug-seeking behaviour that involved entering the homes of acquaintances who were of dubious character or who sold drugs other than cannabis. To minimise the risk associated with becoming involving in a criminal activity, most nominated cannabis users kept the details of their source of supply to themselves and did not involve other family members (such as their partner) in their drug purchases. This was less true of the younger generation, therefore pointing to a useful area in which to focus on reducing harm. Younger people were more likely to purchase larger amounts of cannabis to share the cost with their friends, however, repackaging and resale of cannabis in this manner essentially constitutes drug distribution and increases the risk of a criminal conviction. Hence, limiting purchases to small quantities is probably safer from a legal perspective and perhaps young people need to be specifically educated about this side of things.

Parents who become dependent on illegal drugs generally lose the ability or motivation to maintain a front of normalcy over time (McKeganey, et al., 2002) and, in the case of opioids, parents had a limited capacity to keep their drug use under control despite their intention to do so (Barnard & Barlow, 2003). In the current research, most parents had managed to keep their long-term use of cannabis under control, to the extent that they appeared to be able to maintain a balanced life that did not result in the sort of drug problems for which treatment is often sought. Parents were very much aware that cannabis intoxication could make them lazy and unmotivated, particularly when used frequently. Hence, they tended to ensure that they completed household tasks, prepared meals, and saw their children off to bed before indulging in cannabis use. This might suggest that the separation of drug use and parenting role is perhaps more viable with cannabis use than opiates. If this is, in fact, the case, then it is important that literature does not make generalisations about drug users, as statements about parents who use opioids might not apply to parents who use cannabis. Nominated cannabis users in the current study emphasised the importance of prioritising normal family life, getting the children to and from school, making lunches, assisting with homework, talking to your children, and allowing them to develop interests outside of the home, such as sport or hobbies. In this way, family life was more balanced and normal, compared with previous studies that have examined the use of drugs in families.

Table 5, set out below, identifies each harm reduction strategy and contains a brief rationale for each strategy and lists any evidence for its effectiveness, where possible. Not all of the harm reduction strategies are linked to evidence from the current review, hence, some cells of the table remain empty.

TABLE 5

Evidence for Harm Reduction Strategies

| Theme | Harm Reduction Strategy | Rationale | Evidence |
|--------------------------|---|---|--|
| 7.1 Dosage Control | 1. Limit the quantity of cannabis used on any one occasion. | Avoids getting excessively intoxicated. | Experienced cannabis users are competent at self-titrating the amount they need to smoke to gain the desired effect (Associated Press, 2008; Gossop, 2007; Taylor, 2008). |

| Theme | Harm Reduction Strategy | Rationale | Evidence |
|--------------------------|--|---|--|
| 7.1 Dosage Control | 2. Use less potent varieties of cannabis, such as outdoor strains (bush weed). | Some plant forms produce more potent forms of cannabis leading to heavier states of intoxication. | Australian research does not support the notion that hydroponic cannabis is necessarily of a higher potency than outdoor (bush) strains (National Cannabis Prevention and Information Centre (NCPIC), 2008; Stafford & Burns, 2011). |
| 7.1 Dosage Control | 3. Consider the method of delivery as this affects intoxication levels. | Some methods of consumption lead to increased intoxication. | The use of a bong rather than a joint has often been touted as the safer mode of administration, yet laboratory research suggests that this might not be the case (Gieringer, 1996; Gieringer, 2001, 2004). |
| 7.1 Dosage Control | 4. Avoid using alcohol (or other drugs) when using cannabis. | Additive effects of combining drugs are not really known | Individuals are at a higher risk for poor outcomes when cannabis is used concurrently with alcohol (Barnwell, et al., 2005; Midanik, et al., 2007). Concurrent use of alcohol and cannabis, even in small doses, significantly increases the risk of motor vehicle crash (Sewell, et al., 2009). Little is known about how the use of specific drugs might interact with the effects of exposure to other drugs (Merikangas, et al., 1998a). |

| Theme | Harm Reduction Strategy | Rationale | Evidence |
|-------------------|--|--|---|
| 7.2 Dependency | 5. Avoid using cannabis every day – use tolerance to your benefit. | Reduces tolerance; cannabis effects are achieved at a lower dosage, thereby reducing the quantity and costs required to achieve the desired state of intoxication. | Tolerance to the effects of cannabinoids occurs (Bass & Martin, 2000; Coffey, et al., 2002; Gonzalez, et al., 2005). High-dose frequent cannabis users who decided to reduce or cease their intake were able to do so with a minimum of difficulty (Kandel & Davies, 1992). |
| 7.2 Dependency | 6. Keep track of how much cannabis you are using to ensure use doesn't increase over time. | Ensures that use does not increase over time. | The ability to monitor and modify one's drug use is consistent with findings that drug users who were not in treatment modified their drug use to avoid adverse consequences (Williamson, et al., 1997) |
| 7.2 Dependency | 7. Don't mix tobacco with cannabis as it can increase the cravings for both. | You might get cravings for nicotine as well as cannabis. | The use of cannabis and tobacco simultaneously can lead to increased use of both cannabis and tobacco, making it more difficult to quit either (Akre, et al., 2010; Copeland, et al., 2009; Patton, et al., 2005). |
| 7.3 | 8. Avoid the use of cannabis if you are | Cannabis can be counter- | Chronic cannabis use is associated with flat affect, |

| Theme | Harm Reduction Strategy | Rationale | Evidence |
|-----------------------|---|--|---|
| Acute Risk | experiencing negative mood or heightened stress. | productive in these states and worsen negative affect. | depression, and low energy levels, as well as anxiety, panic attacks, and paranoia (Chacin, 1996; Strike, et al., 2003). |
| 7.3 Acute Risk | 9. Take care of work and other responsibilities prior to using cannabis. | Limits the risk of failures in important areas of life such as work or parenting. | Studies of controlled use of other illegal drugs indicate that non-problematic patterns of drug use can be maintained (Forrester, 2000; Lende, et al., 2007; Zinberg, 1984) |
| 7.3 Acute Risk | 10. Avoid driving a motor vehicle when under the influence of cannabis. | Reduces the risk of a motor vehicle crash and of being fined for driving under the influence of an illegal drug. | Cannabis intoxication is considered to have a deleterious effect on motor skills, coordination, and reaction time (Beardsley & Kelly, 1999; Kelly, et al., 2004; Sewell, et al., 2009). |
| 7.4 Long-term harm | 11. Don't use cannabis instead of dealing with problems – use active problem solving. | Limits the risk of failures in important areas of life such as work or parenting. | |
| 7.4 Long-term harm | 12. Maintain healthy habits that are incompatible with cannabis use, such | Promotes a balanced and healthy lifestyle. | Richardson et al. (1993) have argued that adverse outcomes are associated with drug -using lifestyles, rather than any unique |

| Theme | Harm Reduction Strategy | Rationale | Evidence |
|-------------------------|---|---|---|
| | as meditation, exercising, and socialising. | | effects of particular drugs. |
| 7.4 Long-term harm | 13. Only purchase cannabis from people with whom you have a long-standing relationship. | Reduces the risk of being associated with criminals and being charged with drug-related crimes. | |
| 7.4 Long-term harm | 14. Maintain a low profile – be careful who knows about your cannabis use. | Minimises the risk of adverse social or legal consequences. | |
| 7.5 Harm to children | 15. Ensure that the cost of your cannabis use does not cause you or your family financial hardship. | Ensures that family obligations are met and reduces the likelihood of financial problems. | Those in a cannabis treatment program were found to spend nearly 25% of their income on cannabis (Copeland, et al., 2001) compared to those in the current study who spent about 10% of their income. |
| 7.5 Harm to children | 16. Don't expose your children to the use of cannabis or to cannabis smoke. | Exposure to cannabis smoke might be harmful to children. | Cannabis affects higher order cognitive processes (i.e., executive functioning) (Fried, 2002; Fried, et al., 1998). Effects of passive smoking on children are not known. |
| 7.5 | 17. Don't allow family | Avoids legal risks | |

| Theme | Harm Reduction Strategy | Rationale | Evidence |
|----------------------|---|---|--|
| Harm to children | members to accompany you if you intend to obtain cannabis. | and family being exposed to potentially unsafe situations. | |
| 7.5 Harm to children | 18. Store all cannabis, smoking implements, and baked cannabis securely and away from children. | Young people in the current study frequently accessed their parent's cannabis supply. | |
| 7.5 Harm to children | 19. Prioritise your children's needs over your cannabis use, and pay attention to their social and emotional needs. | Children have the best chance of reaching their full potential if they are raised in an environment that consistently provides enriched and stimulating interactions in a context of attentive and nurturing relationships (Perry, 2004, 2005, 2009). | Despite smoking cannabis regularly for years, some people experience few (if any) adverse physical, psychological, or social consequences (Grinspoon & Bakalar, 1993; Novak, 1980) |

Chapter VII - Method (Study 2)

Research Aims & Rationale

The aims of Study 2 were consistent with those of study 1 in describing the benefits and harms of cannabis use and any harm reduction strategies used by parents to minimise cannabis-related harm to self or family. The thematic analyses in Study 1 encompassed data from all 13 participating families and were analysed in a way that identified a range of scenarios that potentially play out in some families. The purpose of Study 2 was to examine and describe some of the 13 cases in depth, because cannabis use played out differently in different families.

Research Design

Miles and Huberman (1994) suggested the use of vignettes to provide a “*focussed description of a series of events taken to be representative, typical or emblematic*” of some cases. The use of case study methodology in Study 2 essentially involved producing detailed descriptive vignettes that allowed me to examine in-depth how the use of cannabis had played out in particular families. This approach to the case studies is consistent with the descriptive approach to case studies described by Yin (1994). In-depth case study analyses assisted the researcher in making meaning of initial cases, which was particularly useful in the early stages of data collection (see Miles & Huberman, 1994). The use of vignettes allowed for the reorganisation of individual level data so that outcomes could be examined at the family level (see also Data Analysis).

Ethical considerations

This research was approved by the Edith Cowan University (ECU) Human Research Ethics Committee and the Faculty of Computing, Health, and Science.

Confidentiality.

Efforts to maintain interviewee family’s confidentiality were set out in Chapter IV (Study 1).

Informed consent.

The process of obtaining informed consent was described in Chapter IV (Study 1).

Participants

Recruitment strategies.

Recruitment of families for this research was described in Chapter IV (Study 1).

Inclusion criteria.

Detailed inclusion criteria for participating families are set out in Chapter IV (Study 1). Study 1 and 2 were conducted concurrently, with the families chosen for Study 2 being the first two families to have completed all within family interviews. Families were interviewed in the order in which they volunteered. Interviews with Family 2 were put on hold for a lengthy period of time, hence, Family 1 and 3 were the first two families to provide completed interviews for transcription and analysis. Due to time constraints of the overall research project it was not possible to include more than two in-depth case studies.

Demographic information.

Demographic information, such as ages, family structure, and SES for the families involved in Study 2, is detailed within the case studies presented in Chapter VIII, under the heading of Family Background.

Data Collection

As described in Chapter IV (Study 1) the data was obtained by way of semi-structured interviews with family members.

Data Analysis

Following Miles and Huberman (1994, p.81) “*vignettes*” were used to organise the material from each interview with a family member. A vignette is a “*focussed description of a series of events taken to be representative, typical, or emblematic of the cases under examination.*” The vignette has “*a narrative, story-like structure that preserves chronological flow and that normally is limited to a brief time span, to one or a few key actors, to a bounded space, or to all three*” (Miles & Huberman, 1994). The process of producing a vignette relied on immersion in the data through reading and re-reading over time. The data from each family member were initially organised under headings that were developed to provide some structure for the organisation of the raw data into vignettes. The raw data (quotes) from family members were organised under the headings: Family Background, Parental Drug Use; Benefits of Cannabis Use; Potential for Harm; Parenting; and Use of Drugs by Young People in the Family. By drawing together separate stories from individual interviews with family members, a family vignette was produced that described the lived experience of various family members in relation to cannabis and other drug use within their family.

Bringing together and linking data from each family member allowed for an examination of partner's and children's views about the use of cannabis by the nominated cannabis user in the family, particularly their perceptions as to whether cannabis use had impacted on family life or on the children's upbringing and development. Given the emphasis in the literature on intergenerational drug use, young people's drug-taking behaviour and attitude was also directly compared with their parent's attitudes and behaviours. From the raw data, a written account or vignette was produced with many quotations retained to illustrate and validate the story being told. In this way data from individual family members was brought together and explored in relation to the data from other family members, providing some evidence as to whether parental attempts to minimise harm to self and family were effective. The family vignette is essentially the researcher's case formulation in relation to the use of cannabis within that specific family.

Respondent validation

Specific feedback was provided from participants in the two case studies presented as Study 2 (as detailed in Chapter VIII). In the case of Family 1, the vignette was read and validated by the nominated cannabis user and his wife, a non-user. During a subsequent interview, they agreed that the case study was an accurate representation of their family life at the time and the way that cannabis use had played out within their family and relationship. A second interview was also completed with the nominated cannabis user in Family 3, who also agreed that the case study represented an accurate interpretation of cannabis and other drug use within this family. Hence, feedback from within these two families validated the researcher's findings.

Chapter VIII - Findings (Study 2)

The use of a case study methodology allowed the researcher to undertake an in-depth examination of the use of cannabis within families where at least one parent was a long-term cannabis user. Bringing together and linking data from each family member by themes allowed the researcher to compare and contrast the data obtained from each family member, so that the specific benefits and harms of cannabis use and any harm reduction strategies used by parents were able to be examined more closely within specific families. Two of the in-depth case studies are presented below in the form of vignettes as outlined in Chapter VII.

Family 1 Case Study

Family Background

The nominated cannabis user in this family was the mother, Linda (aged 50) who lived with her long-term partner, Paul (54) who did not use cannabis or other drugs. Linda was a nurse and Paul was self-employed; their combined income was approximately \$60,000 per annum at the time and they had no financially dependent children. They owned their own home, an older-style, well presented, character home close to the city, where the family had lived since the children were young. Linda was mother to two children but had separated from their father 14 years previously. Paul had been stepfather to the children for approximately 12 years. Linda's daughter, Heather (20) was in the process of moving out of the family home. She was dancing in a night club, earning approximately \$2,000 for 3 nights work. I did not interview Linda's son, Chris (23) because he had been living with his father for the previous 10 years and because maternal family members each raised concerns about Chris (and his father) being involved with a drug-using lifestyle and associating with a criminal element. Chris's over-familiarity, playfulness, and rapid speech when introduced to the researcher at his mother's home, suggested that he was under the influence of amphetamine type stimulants (ATS) at the time and his mother believed this to be the case. Hence, this was a blended family where what went on in the homes of both parents (each of whom had long-term partners) would have influenced each of the children's development to some extent.

Parental Drug Use

Linda had been smoking cannabis for some 35 years and noted that her cannabis use had gradually reduced over the years. She believed that this was due to having taken up meditation 15 years ago and finding cannabis use to be incompatible with this practice. Linda said she gave up smoking cannabis during her pregnancies but continued to smoke cigarettes. She argued that she

had always tended to put fairly strict boundaries around her use of cannabis, stating that *“even when the kids were younger I wouldn’t smoke during the day, I’d wait until they were all home and I’d finished all my cooking and organised them. I might even smoke after they had gone to bed.”*

Linda described her current use of cannabis as *“minimal,”* stating that she was currently only using cannabis about once a week, usually on a day when she was not working. Linda preferred to smoke *“bush,”* however, because she *“does not go chasing pot, hydro”* was more likely to be available to her. Linda smoked cannabis mixed with tobacco in small joints, and tended to smoke either alone or socially in the company of a few close friends of long-standing. *“There are only a few people I smoke with now and not everyone knows that I smoke. I kind of don’t put it out there.”*

Linda’s current drug use consisted of daily cigarettes, small quantities of cannabis about once a week, and alcohol on social occasions. However, she disclosed that she had used heroin, cocaine, and hash frequently when she was a teenager and did not yet have children.

We had lots of hash around and lots of other drugs and stuff and we used to just smoke all day. It was just there, and it was just part of what was happening. But then back at that time I also had a smack habit and so I was probably trying to keep that more under control. There was basically whatever you wanted. Most of the people that we all knew [were] dealing at the time, so it was in the house, it was there.

Linda stated that there was no education about drugs when she was young and noted that she had made a deliberate choice to use heroin at the age of 17 because she was curious. Linda acknowledged that she became heavily involved in a drug-using *“scene”* in her youth but at the time of interview she had not used any drug other than cannabis in over 25 years (with the exception of once trying ATS). Linda argued that even when she was heavily involved with illegal drugs, she managed to put boundaries around her use so that it did not spiral out of control.

I still had my limits with that. I knew when enough was enough. So I was never, ever greedy with that [heroin] and I never, ever over dosed on any of the drugs I was taking. So I still had limits.

Although her current drug use bore little resemblance to her heavy use of illegal drugs when she was younger, Linda had never sought treatment for drug-related problems.

Linda’s partner provided reports that were consistent with Linda’s self-description of her cannabis use as minimal and well managed. Paul himself had *“never had an orientation toward [drug use]. Because I never smoked anyway, it just never occurred to me to smoke cannabis ... I just never had a lifestyle or anything that ever directed me toward it.”* Apart from trying hash oil more than 20 years ago, Paul had no history of drug use. Linda stated that her partner had *“never,*

ever commented” on her behaviour when she had been smoking cannabis. She said that “*if I was coming in [side the house] and smoking, [or] it was disrupting the house or the relationship [or] it was eating into the finances that would have been a problem.*” Hence, Linda believed that her cannabis use had not affected her partner, their relationship, or her children’s wellbeing. Paul agreed that this was the case and described Linda’s use of cannabis as follows:

I see Linda as not having a drug problem. [Her cannabis use] is a personal thing that Linda herself has some control over. I have never really seen Linda what you would call stoned really. I mean she has never really got herself to that point. Whatever she does, she does very mildly. She doesn’t smoke much on each occasion or use really strong stuff either. Linda indulges under circumstances that have a very, very low potential to spiral into some sort of insidious or nasty situation either at one time or over time. To my mind it has always been just a very private personal thing and only with close personal friends that indulge as a social thing.

Neither could Heather ever recall seeing her mother obviously stoned when she was growing up, informing me that, “*I always knew, but there was never any confrontation about it. I just figured mum did what she wanted to do, and it wasn’t affecting me.*” When asked whether he could tell if Linda was under the influence of cannabis, Paul said, “*Yes, I can tell. I guess it is probably just a ‘mellowing out’ of whatever she had been [like before using].*” Therefore, Paul was quite unconcerned about Linda’s use of cannabis. He mentioned that they had never “*really talked about it in any great depth, [because] it had never been an issue.*” Linda’s daughter’s and her partner’s reports were consistent with Linda’s self-description of her cannabis use as minimal and well managed. All family members were aware of Linda’s early history of heavy drug use, including heroin, but held no concerns about her use of cannabis.

Benefits of Cannabis Use

Linda mostly used cannabis when she was alone, to relax and forget about her problems for a while.

It can be a form of escapism. You know, when things get too hard and too much and you just smoke and smoke and smoke and you don’t think about a great deal at all. It kind of just relaxes me and chills me out from whatever else is happening around the place. It just takes you to another level of being relaxed.

Paul agreed that smoking cannabis allowed his partner to have a “*mental holiday*” from life’s stressors.

It just sort of de-stresses and is pleasant for her to do. It is a personal thing, that Linda herself has some control over, that actually results in a physical feeling of less stress. At times when things might be causing her some kind of distress one of the responses is to have a bit of a ‘choof’ and that gives her the physical sensations that can go with, and

that lead to, mental rest for her. It is probably temporary because whatever the stressors are, if they are actually problems, they don't actually go away because of that but as a benefit, I think it is good for her. She just has a bit of a mental holiday.

When I asked Heather why she thought her mother used cannabis she also referred to relaxation, stating that:

Because mum smokes bushy she probably just gets very mellow and calm from it. I know what I am like when I smoke ... you just want to sit down and be really lazy.

Linda also claimed that the use of cannabis enhanced her creativity and her motivation when she was gardening or doing artwork, both of which she clearly enjoyed as evidenced by the beautiful gardens surrounding her home and displays of her personal artwork within the home.

It taps into ... a creative side ... and gets me going, and wanting to do things ... I like to smoke when I'm out in the garden, Ideas happen quickly, and they're different ideas. So, I'll go and explore those and see if they work, and if I'm doing artwork, it enhances that somehow, so that's a benefit.

Linda also occasionally used cannabis socially when in the company of certain close friends of long-standing. Although Linda and Paul claimed that they had never had cause to discuss her use of cannabis, Paul's perceptions about when and why his partner used cannabis were consistent with Linda's self-report. Neither Linda's partner nor her daughter expressed any concerns about Linda's use of cannabis. In fact, family members shared the view that cannabis was a 'soft' drug. As Heather stated, "*weed is just a little bit more acceptable [than other drugs] in the sense that a lot of people do it. You don't have to be a druggie to smoke weed.*"

Potential for Harm

Linda reported little, if any, actual harm to self or family due to her cannabis use; and her partner and daughter supported this view. Linda was aware that using cannabis could make her antisocial, lazy, and unmotivated, particularly if she was already feeling that way inclined. She said that:

I am aware that it can make me a little bit slack but if I'm in that frame [of mind] anyway, that is how it is going to be, with or without [cannabis]. If you smoke too much, you can become lazy and you don't want to do anything else, you kind of just want to fall in a heap.

Linda argued that people's drug preferences were related to their chemistry, in that "*you are either an upward moving person or you are a downward moving person and I think you take the drugs to match that.*" Linda's preference had been for depressive drugs rather than stimulant drugs, however, she believed that cannabis "*can be upward moving too [depending] on what kind of mood you are in.*" In this regard, Linda noted:

The kids [would] clock onto me sometimes when they were younger and they would know that I was just in a slightly different mood and they'd take absolute advantage of that and they would make you laugh and giggle and poke you. They just knew there was something different. They would pick up on that mood and they'd be ultra-silly and make you laugh and stuff because that is what kids like, to see their parents laugh and not be miserable. They didn't know that you'd had a smoke but just sensed the mood, that it was different. So, I suppose if you're in a good mood and you have a smoke it can kind of make you feel a little bit more upward. I think it all depends on where you are at as to how it affects you. I mean if you are feeling down anyway, I think it can just impact on that even more [but if you are] in a good mood it can just make you a bit silly, a bit more fun than usual.

Hence, Linda was aware that the subjective effects of cannabis were determined by her pre-existing mood state prior to using. Linda would avoid using cannabis at times when she was already feeling low as she found it to be unhelpful.

Linda believed that she had a genetic predisposition that made her vulnerable to depression and that was “*perhaps why I don't smoke a lot ... I could just curl up into a little ball and then become nothing, and that is not what I want to be.*” Linda was emphasising the importance of knowing yourself and, in her case, recognising that it was not useful to use cannabis when she was in a particular frame of mind. She had learned not to increase her cannabis use in response to negative feelings as this would only make things worse.

If you are prone to depression, it can impact on that more. It is more the physical and the psychological downs. If you are smoking too much it can impact on that a lot. I have noticed that for myself, if I have been smoking too much and I have got myself in a hole. So whether it goes hand in hand... because that has always been there anyway [for me], having some type of depression, but it definitely makes it worse. I would just lock myself up basically, not answer the phone, and not go and see people, just keep isolated. And it has had that impact on other people, who have got good jobs, and then they start smoking and drinking, and go into this horrible downward spiral because of it. If you smoke too much dope it can make you antisocial, you can isolate yourself.

Hence, Linda had learned that it was counter-productive to increase her use of cannabis if she was feeling depressed because it can exacerbate social isolation and low mood. However, Linda did not believe that either her use of cannabis or her depression had ever been significant enough to interfere with her capacity to fulfil the responsibilities associated with parenting and working as a nurse.

Linda acknowledged that staying stoned could be a means to avoid dealing with problems and that cannabis users might thereby fail to resolve important life matters.

I suppose you could use it for a coping mechanism. Yeah, it's a way to cope. When things have got really rough, instead of having a drink, which makes me miserable, [I have] a

smoke, to just sit back from what is happening, to just take a step back. If you have really got a problem it can make things a lot more confusing, which is probably why I do restrict the smoking. If anything really serious was happening, I wouldn't smoke. If there was something that I really needed to concentrate on or pay attention to, I wouldn't have a smoke. So it all depends on the degree of urgency that is happening around the place. If it is something you have to focus on, I wouldn't go and smoke because you can't focus.

Linda admitted that there had probably been times when she had used cannabis as a means of coping. However, she was emphatic about not smoking cannabis when there were serious problems that required her attention. Consistent with Linda's report, Paul noted that if Linda was dealing with a serious problem "*it would be the straight out [cigarette] smoking that would probably escalate during the really stressful [times]*" rather than Linda's use of cannabis.

Despite not smoking cigarettes or cannabis, Paul says that Linda's use of these substances had "*never been an issue*" for him. However, he was aware of Linda's history of heroin use and although it was decades ago, he continued to experience:

a mild sort of vigilance in not wanting her to ever slip back into that kind of experience again. In regard to her continuing use of pot, which is not very extensive by any means, whatever she does, she does very mildly. I wouldn't have a concern that that it might lead to it but other stressors and strains family-wise and so on like that may have the potential to tip something up, it is unknown, completely and so I just have a mild vigilance there.

He described himself as:

watching, aware that it is there, just watching from a concerned point of view with her marijuana use. I just sort of, more for her sake, hope that it doesn't dull her life. I mean I know that she uses it to de-stress sometimes with different things and to me that is perfectly acceptable. The way her use is, I don't have an issue with it at all. She seems to have it well in hand as far as I can tell.

Therefore, although Paul sometimes worried that Linda might increase her drug use in response to ongoing stress. His fears in this regard seem to be primarily due to Linda's use of heroin when she was young. In terms of Linda's past drug use, Paul noted;

She has always maintained that she always knew how far to go, things like that. I don't know whether in reality that is a delusion or not. All I can say is that given by the fact that she has completely managed to extract herself from that, and the fact that she is still here, it would appear that she was at least partially correct in it but whether she actually really knew or whether she was just lucky, I don't know. Probably a combination of both I would say.

Hence, despite her capacity to manage her cannabis use over a 12-year period, Paul was not entirely convinced of Linda's ability to manage her drug use over the long-term.

At the time of conducting the interview, there had been publicity about the WA police introducing a drug-testing bus to the streets of Perth. Linda noted, *“I will probably have to give up smoking [cannabis] because we are going to have that ... bus, which tests for amphetamines and cannabis.”* Linda noted that both her driving and her judgement were impaired by cannabis use, and for this reason, she did not smoke cannabis if she was intending to drive somewhere.

It does impair your driving. If you smoke some really good dope you can't make good judgements. It is like drinking, you've got to make choices as to whether you're going to drink and if you need to go out in the evening and you've had a couple of drinks well you're not going to drive anywhere and if there was an emergency you'd be buggered. You wouldn't be able to jump in the car.

Linda was not concerned about being caught driving under the influence of cannabis as she would probably only do this in an emergency. However, she was worried about testing positive for cannabis when she was no longer under the influence given that cannabis can produce positive test results up to five days after use for a novice user and up to 30 days after last use for a long-term user. Linda thought that the introduction of roadside testing would motivate some people to cease using cannabis.

Heather confirmed that her mother had strong views about driving under the influence. She informed me that:

An ex-boyfriend of mine used to come over and he used to smoke a lot of weed and we would drive somewhere and mum always thought it was really bad. You do slow down a little bit when you have been smoking weed whereas he thought that when he was on weed it made him more alert and [that] he was a better driver. He and mum used to have arguments about it all the time. She was like, 'no, you can't drive' but he never listened.

Heather said she thought that his driving *“was just the same [as when he was not smoking cannabis]. If anything, he was more wary; he would watch what was going on a bit more.”*

Although Heather did not believe that this young man's driving was impaired by his cannabis use, she noted that:

Personally, I can't actually drive after I have had a smoke because I get drowsy, I get the giggles, and I can't drive in that state. I have tried to before and I just won't, I always get someone else to drive when I have had a smoke or I just stay around or stuff.”

Hence, in addition to increasing the risk of poor parenting and depression, potential harms associated with cannabis use included driving under the influence and the risk of testing positive for cannabis days or even weeks after using cannabis. Furthermore, the use of cannabis could

cause other family members to worry about the user's ongoing capacity to successfully manage his or her drug use.

Parenting

Despite becoming heavily involved with drugs in her youth, mother had limited herself to small quantities of cannabis since having children and had ceased all use of other illegal drugs over 20 years prior. Linda used cigarettes and alcohol in moderation, stating that her children had never even seen her get drunk because her use of AOD was 'controlled.' Linda emphasised that it would be difficult to handle an emergency or concentrate on something important, such as the supervision of young children, when under the influence of cannabis. In discussing the drug-using lifestyle of her youth, she stated:

That was a different time, a different lifestyle, and when you're gobbled up in that, it does become part of your life and things do happen and things do go out of control and it's unpredictable. It's not safe. Yeah, it's not a good place for children to be. You have to protect them from a lifestyle. It's too dangerous for kids. It is. And they do and they look and they see and they will make their own choices.

Linda argued that "it was how deeply you are indulging in [cannabis, as to] how much of an impact it is having within the family." Linda believed that cannabis use could be moderated so that "you are still aware that you are a parent and you have got responsibilities." She noted that if there were two parents and they were "both indulging it just deepens the impact on what is happening with the family." In terms of children being exposed to cannabis use in the home, Linda argued:

Unless you shift to another family, a child just thinks that this is normal; this is part of the family. I mean you grow up and you get a few more friends and you go and visit other people and you [find that] other families can do things very differently.

Therefore, Linda believed that a parent who used cannabis could raise children successfully if they did not get overly involved in a drug-using lifestyle, and managed to provide the structure and supervision necessary to successfully raise children. In reflecting on raising her children and using cannabis, Linda stated that:

Even when the kids were younger I wouldn't smoke during the day. I'd wait until they were all home and I'd finished all my cooking and organised them. I might even smoke after they'd gone to bed. If the kids, when they were younger, were out and about and there was an emergency and you were like 'off your face,' well you are not there on the ground.

Linda argued that that using cannabis could impact negatively on parenting capacity due to lack of supervision and the shifting moods associated with using or withdrawing from cannabis, which might reduce a parent's capacity to respond effectively to his or her children's needs. Linda

said she had seen children yelled at due to their timing rather than their behaviour. She argued that using cannabis throughout the day when caring for children was problematic and inappropriate, particularly if there was a lack of routine and structure.

You are not clear thinking, you are not operating, you just sop down into where you are at the time. If you have got kids zooming around, the kids are not being given any boundaries and they get away with doing whatever they jolly well want to do. They get ignored.

Linda had seen this occur and noted that it was the lack of routine and structure associated with a drug-using lifestyle that was particularly problematic. *"I mean I have seen parents who smoke and give their kids structure and those children have become strong adults in professions, and I have seen parents who smoke and control as teenagers [do]."* Linda noted that her own parents *"were older people"* and that when she became a teenager *"they were too scared to form boundaries."* Linda wondered whether such boundaries might have prevented her from becoming involved in a heroin-using lifestyle when she was young.

Linda described herself as being quite careful about when and why she used cannabis and although open to discussing her personal drug use with her children, she tended not to allow herself to become intoxicated when she had maternal responsibilities. She argued that, *"The kids have never seen me drunk, for instance. It's controlled, it's always been controlled."* Linda believed that her use of cannabis had not been detrimental to her family or her parenting because she had put firm boundaries around her use and rarely exposed her children to it. Linda's main strategies for protecting herself and her family from cannabis-related harm involved limiting her cannabis use, using weaker strains, and refraining from smoking cannabis when her children were present. Linda's preference for weaker strains of bush weed was probably a factor in minimising any potential for harm to impact on her family, allowing her to smoke cannabis without becoming overly intoxicated.

Even though the children were now adults, Linda did not usually smoke cannabis in front of them, stating that: *"I smoked in front of Chris one day because I knew he was smoking then anyway and he was a teenager and I thought it might just relax him out."* Linda was not comfortable with the experience and did not repeat it because she did not want to set a bad example. Linda was uncertain as to whether her cannabis use had affected her daughter but she acknowledged that Heather had been witness to many drug-related situations through her relationship with her brother. Linda noted that:

Their substance abuse, even though we don't live together, still impacts on this household. It spills over here, which is difficult. And there is that criminal element that goes on in the background a lot. So she has been exposed to that, too. There is always a criminal element somewhere when there are drugs. I mean it is a criminal activity.

Thus, Linda's children were exposed to the criminal element associated with illegal drug use despite Linda and Paul's efforts to model and encourage responsible behaviour.

Linda said, "*Heather knows I smoke but I don't normally do that in front of her, not as a rule. I'll wait until she disappears.*" Nonetheless, Heather first became aware of her mother's cannabis use when she was about 9 years old. She stated that:

My brother is older than me and he was always smoking weed, so yes, I knew what it was from a really young age. Yeah, I always knew [that mum smoked cannabis] but there was never any confrontation about it. I just figured mum did what she wanted to do, and it wasn't affecting me.

Heather said when she was younger she could not tell when her mother had been smoking cannabis but these days she knew because she could smell it on her. Heather stated, "*She never changes the way she acts or anything [when she has been using cannabis].*"

Despite being aware of her mother's cannabis use from a young age, Heather did not believe that it had impacted in any way on the way she was parented. Heather stated, "*It wasn't like she was always stoned and could never do anything. When I was [a child] I had no idea when she was smoking it.*" Heather said:

I know mum smokes bushy, I think, mostly. I have had some of her weed before and it is just shit, it is just leaf but that is probably why she doesn't change so much. Because my dad, as far as I know, smokes a lot of hydro, so you never know what is in that and everyone that I know has a different reaction to weed. Some people fall asleep, some people get angry, some of my friends get really hyper[active] but because mum smokes bushy she probably just gets very mellow and calm from it.

Heather acknowledged that she had "*seen a lot of different people react a lot different [to cannabis]*", and said, "*It also depends on what type of weed you smoke.*" Therefore, Linda's moderate use and preference for weaker strains of cannabis was probably a factor in minimising any potential harm to her family. Through exposure to various models of cannabis use within her family and peers, Heather had an understanding that there were different potencies of cannabis and individual differences in the way that people used cannabis and how they react to it.

Linda had been living with a non-using partner for approximately 12 years, and he confirmed that Linda's use of cannabis had not been detrimental to her functioning nor to

relationships within the family. Paul confirmed that mother had mostly kept her cannabis use separate from the upbringing of her children.

I don't ever remember Linda directly using or smoking as part of her contact and upbringing of her kids. I mean I have never really seen Linda what you would call stoned really. I mean she has never, ever really got herself to that point and I can't remember any instance where she has actually used smoking cannabis as a management tool with her children. I can't remember anything like that at all. Maybe at the end of a tough day if something was going on she might have rolled a joint or something but that was after whatever was going on, the immediate thing had subsided or whatever.

Paul confirmed that Linda's cannabis use occurred in "a very limited context and because of that I think that has minimised any harms generally that could have otherwise perhaps occurred." He emphasised that:

Chris and Heather were at primary school when I first met Linda and I have never ever seen anything going on in this house from Linda's perspective and mine that would have steered, particularly Chris, in that direction, nor Heather. Even just straight out drinking and all of that, there has never been anything going on in this house that would have, over time, from a very, very young age, since I got involved with Linda, that would lead to it.

Thus, Paul argued that their lifestyle was not a factor in the children's drug use.

Paul was certain that any problematic drug use by the children was unrelated to Linda's personal drug use. Heather tended to agree with this view but when asked if she thought that her mother's attitude towards drugs had influenced her own use of drugs, she responded in the positive.

Probably. I used to always say that because mum smoked cigarettes I smoke cigarettes. I like to stir her about that occasionally. When I was about 13 or 14 I went through a stage where I thought it was really cool. As a kid I always thought 'I won't get into much trouble because mum does it'. Using cannabis just felt a little bit more comfortable and I don't have to hide it, therefore, it's easier for me.

Heather did not view her own use of cannabis as harmful, and insisted that her mother's cannabis use had not affected her in any way.

I can honestly say that it has never affected me, as far as I am concerned. Someone else might say that it has but I don't think it has ever affected me. I mean, if anything, it just makes our relationship a bit easier, a bit more open; we can just talk to each other a bit more. I kind of think mum knows a little bit more about what is going on.

Therefore, Heather believed that her mother's drug use experience was something that facilitated openness in their relationship and brought them closer. Nonetheless, Heather did not feel she could be completely honest with her parents about the extent of her own drug use because she

did not want them to worry about her, especially given their current worries about her brother's problematic use of drugs. It seems that Linda had prioritised her responsibilities to her children over her use of cannabis as Heather had experienced a very normal and appropriate childhood in most respects, informing me that, *"Mum and dad were divorced when I was probably 9, something like that, but I can just remember that it was good; my childhood was good, nothing really out of the ordinary."*

In terms of cannabis-related harm, Heather stated that she had *"never really seen anyone get hurt by it"* but she acknowledged that some of her peers chose cannabis use over completion of high school.

In high school there were a lot of boys that just threw their whole schooling away because they were always stoned and would prefer to go out and get stoned than go to school. That is the only thing that I can really see how it would damage.

Heather also spoke of a friend who smoked a lot of cannabis and had a baby, arguing that her friend was less interested in fully engaging with her infant when she was stoned.

A friend of mine has a child and she smokes quite a lot of weed but I think that is the only thing that kind of bothers me that I have seen with cannabis and she smokes quite a lot. Because I know what I am like when I smoke and she gets kind of the same and you just want to sit down and be really lazy. And I am like, 'how are you going to look after the baby and be all alert? You aren't going to want to play with her if you have just had a smoke.' That is the only thing that I can see as a bad point.

Therefore, like her mother, Heather argued that parenting a young child and using cannabis were not compatible. When asked about whether she had personally experienced that sense of a mother who was not 'available' to her, she responded, *"No, not at all"* and went on to state that her mother's cannabis use had *"never affected me."* Heather's statements supported Linda's claims that she had prioritised her responsibilities to her children over her use of cannabis, suggesting that Linda handled her cannabis use in a way that minimised any impact on her children.

Use of Drugs by Young People in the Family

The use of drugs by young people in this family was a central theme in this family. All interviewed family members expressed their concerns about Linda's son, Chris, who lived with his father and was experiencing considerable problems associated with polydrug use. Heather, who was in the best position to have full knowledge about her brother's use of drugs stated:

My brother now has a very heavy, serious drug problem. Sometimes I think he is not all there in the head when you talk to him but that is probably because he uses so many

drugs so heavily and like for years and years he has been doing it. He started smoking weed when he got to high school. It became like a big part of his life and stuff, and mum would never tolerate it because he and his mates used to sit in his room and just smoke weed all day. My brother lives with my dad and I know dad uses a lot more than just cannabis and Chris has grown up seeing that side of it. I have been at dad's house before when he has been having a smoke and he used to give me a smoke when I was younger. We'd be like sitting around and have a joint, but I mean this probably wasn't until I was about 16 and he realised that I had smoked before and he let me have a smoke. But I always felt a little bit uncomfortable around there when he and his girlfriend were stoned because they changed. When dad smokes weed he changes a bit whereas mum doesn't. They [Dad and his partner] smoke it more to the point where they are really, really stoned, so they can't move, paralytic, totally gone.

Heather argued that her brother had moved in with their dad because father was more indulgent and allowed Chris to use cannabis and other drugs. All maternal family members attributed Chris's drug problems to his father's lack of boundaries and mixed messages. Heather noted that:

Dad will say to Chris, 'you have to stop doing drugs' but then he will give him some drugs! I just think 'you can't say one thing and do another'. You can't say to him 'don't do it' and then you do it because he is just going to see you and Dad seems to think that his drug use is okay because he can control things. He still goes to work; he still holds down a job and a relationship. So dad still thinks that he keeps everything under control even though he does drugs during the week and smokes a lot of rock but Chris can't handle those sorts of things. He can't work or maybe he just doesn't want to work.

The family were worried about Chris's capacity to turn his drug use around, with Linda stating:

I have tried to help but I know at the end of the day that's up to him. He has to step away from that and want to make the changes but he's pretty dug in at the moment. Yeah, he's been dug in for too long.

Despite having safely navigated a drug-using lifestyle in her youth, Linda did not approve of the level of binge drinking and excessive drug-taking that was common in her children's peer groups. In addition to worries about Chris's drug use, Linda and Paul were also worried about Heather's pattern of bingeing on drugs and alcohol, although they were not privy to the full extent of this. Linda informed me that:

Heather definitely likes to drink and I don't know if she has worked out where the cut-off point is, unfortunately. She smokes dope. I don't think she smokes often. No, I don't know how often she smokes. I'd prefer it if she didn't. I would prefer that she didn't drink either but she could just moderate that, just have a couple, but I think that is difficult for the kids. They just get absolutely wasted when they are out there. They are not conscious when they are having a good time. They don't just drink to feel good. They drink to get absolutely wasted. That's dangerous. You are a liability to your friends when you are like that. They lost a friend in their group a couple of months ago and if he hadn't been absolutely off his chops, he'd still be here.

Paul, who had no history of drug use, also expressed strong feelings about the use of AOD by the young people in the family and their peers:

I think they are caught in a lifestyle that has, as one of its characteristics, in my view, a lack of attention. It doesn't lend itself to even recognising the notion of moderation or ease up or whatever. It is kind of like, 'well, we started today, so we will just keep going and going with whatever is available until we grind to a halt and then when we wander out of that one, we will just gradually slide into the next one and that is what we will do' and I think that is just a different kettle of fish altogether.

Paul spoke at length about issues related to the children's drug and alcohol use. He was particularly bothered by

The secretiveness of it, and I refer to both Heather and Chris, and the underhandedness that goes with their particular usage and indulgence. They blow Linda off so far as warnings about getting involved in cannabis use and/or extending further into drug use and it clearly hasn't had any impact in a desirable way on Chris for sure. I have never liked the pretence that there is nothing going on or they are not doing anything, like it is some big deal to hide it sort of thing, that they are up to something, as if we didn't know ... I include in that side of things just overuse of alcohol as well. I just think there is too much of that in life as well.

The start of it as an issue for me was not just the fact of use of it but the insidious development of a lifestyle that was got underway and the complete dismissal of any encouragement to go in a different way when you had the chance. It is kind of 'well, let's have it develop as an actual problem that we have got to deal with'. My own two eldest also got into that 'drink as much as you possibly can over a weekend because all you want to do is get shit faced' and it was seemingly the norm.

Heather initially stated that, "Mum knows everything I do," however later in the interview, Heather disclosed that she had not told her parents that she had been using other illegal drugs. Heather stated that she consumed alcohol every weekend and "a couple of nights during the week." In addition to alcohol, cigarettes, and cannabis, she also used ecstasy and/or cocaine most weekends. Heather had used ATS in the past but claimed not to have used them for several months now because she had found she "didn't like them." Heather stated that she was not interested in trying heroin. She was aware that "there are different ways you can take it, like you can get Oxycontin, which is like legal heroin, some of my friends do those but it is not something that I would do. I don't want to be fucked up really." Hence, Heather had experimented widely with illegal drugs but had drawn the line at using heroin, which she rated as more risky than other drugs despite her mother's experience of having been able to use heroin and then leave it behind. Like her mother before her, Heather was confident that her drug use was a temporary lifestyle choice and that she was in control of it.

Although Linda was aware that her son was misusing drugs, she was unaware of the extent of her daughter's drug use. Heather told me that she smoked cannabis *"with mates, probably a couple of times a week."* They usually smoked *"hydro [and it was] usually pretty potent, pretty strong."* Heather said that they smoked it in joints with tobacco and noted that she only smoked one or two [nicotine] cigarettes most days but *"when I have got a drink in my hand... I can go through two packets in a night when I go out."* Heather stated that she had *"been doing that for years but [had] never wanted to smoke [cigarettes] during the day. I have never had that urge."* Her experience in managing cigarette smoking allowed Heather to feel confident that she could also manage her use of other drugs. This was despite the fact that her cigarette smoking became excessive when she was also consuming alcohol.

Heather was bingeing on drugs between Thursday and Sunday but, like her mother before her, Heather was confident that she could manage her drug use in the long term.

I go on a bit of a bender for a couple of days on the weekend, Thursday to Sunday, and when it gets to Sunday, I just realise it is time to stop. You have just got to. You always think, 'well maybe I'll just have a little more and then I won't feel bad' but I know that, for me to function for the rest of that week, I have to spend that day or two just getting [off the drugs]. I have never needed drugs to function. If they are there, I just find it is a bit of fun. A lot of people I know get just totally consumed by drug use. For me, when I use, I know it is completely recreational.

Heather argued that she did not want to become drug dependent like her brother and that he served as an example to remind her to keep firm boundaries around her drug use. In explaining why she felt she would not fall into the same trap, she described having a break from heavy drugs through the week and having to put up with the inevitable crash.

I have seen a lot of people who have fallen into..., like my brother is a really big wake up call for me, as far as that goes. Yeah, you go through the [withdrawal phase] and you really do feel quite bad, and you always think 'well maybe I'll just have a little more and then I won't feel bad' but I know that for me to function for the rest of that week I have to spend that day or two just getting [straight] and people don't want to do that. My brother is really big for me; I always have him in the back of my mind. So I never want to get to that point.

Although Linda had provided her children with appropriate parenting and a model of well-controlled cannabis use, the knowledge that their mother was able to immerse herself in a drug-using subculture in her youth and then successfully leave it behind without treatment is likely to have contributed to their permissive attitude to drug use. Heather indicated that, in her world, smoking cannabis was normalised by her parents and knowledge of her mother's cannabis use had made it easier for her to use cannabis with impunity during early adolescence.

As a kid I always thought 'I won't get into much trouble because mum does it'. When I was about 13 or 14, I went through a stage where I thought it was really cool and I was never scared of mum catching me because I could just turn around and say, 'well, you do it, so!' Through the years I have seen mum [smoke cannabis] and [we have] had a joint together because if I am home and having a smoke I would always offer her some. Yeah, if I have friends over and we are outside she wouldn't say anything about it. We always offer her but it's very rare she would come out. She is so cool with my friends. Now that I am over 18 we are all pretty open.

The children both accessed their mothers' cannabis from a young age contributing to their early initiation into cannabis use. Linda informed me that:

The best smoke that he [her son] had, and it's nothing to be proud of. Probably he was about 14 or 15 and he found some of my smoke one day. A couple of years ago he told me that it was the best smoke he has ever had. He's never had anything that has ever come anywhere near it. I think it must have knocked their socks off, him and his mate. His dad smoked too and I know Chris found it one day.

Linda recalled that Chris had also found some cannabis at his father's home when he was 13 or 14.

Linda stated that Chris's father had denied owning the cannabis, stating that someone else had left it there. Linda said,

He never owned up to that but things just got out of hand for Chris. They [Chris's dad and his partner] run a different household to me. His dad is an alcoholic, who won't admit that he's got a drinking problem, and there are all sorts of other drug situations that have happened in the house while Chris has been there.

Linda argued that her ex-husband's use of drugs and alcohol had gotten worse over the years and she believed that his father's influence had largely contributed to the development of Chris's drug problems.

Heather's earliest memories concerning cannabis, involved her best friend, Molly [from family 13 in this study]. Molly's mother (Rachel) had always smoked cannabis openly in front of her children and Heather stated that:

Me and Molly knew what was going on from a pretty young age, like say about 9. When we were really little, we did stuff because we knew they [their mothers] were doing it. When we were about 11, we would steal Rachel's weed bushes from the back yard and we would sell it to the kids at school and my brother, because he was older. He used to buy it off us. We didn't know what to do except buy lollies with our money. This was how we started smoking weed; we would steal it from Rachel.

Hence, For Molly and Heather, cannabis used was normalised from a young age and access to their mothers' cannabis contributed to their early initiation into cannabis use and their liberal attitudes toward the use of drugs.

Although Heather viewed cannabis as less harmful than other drugs, she argued that its use increased the likelihood of a young person using other illegal drugs.

Everyone starts off by smoking a bit of weed because it is kind of like the safe drug when you want to try something new. I mean you start experimenting with weed and I think that leads on to wanting to try other stuff. For a lot of people I know, even for myself, [cannabis] was the first thing I started and from there...

There were similarities in the way that Linda and her daughter used cannabis in that they both preferred to smoke it in joints with tobacco rather than in a bong. However, Heather tended to prefer more potent strains of cannabis than her mother did. When asked if she thought that her mother's attitude towards drugs had influenced her own use of drugs, Heather said:

Probably. I used to always say that because mum smoked cigarettes I smoke cigarettes. I like to stir her about that occasionally. Using cannabis just felt a little bit more comfortable and I don't have to hide it, therefore, it's easier for me

Furthermore, Linda stated that when she tried to talk Chris about his drug use, he would often come back with, "Well you used to be a drug addict and you survived!" Linda would tell him, "they don't always survive and if you do pop out the other end, I think you are just lucky really." Linda believes that Chris will need to leave his father's home if he wants to reduce his drug use and adopt a healthy lifestyle. Chris is currently unemployed and there is ready access to drugs and alcohol in the home. Paul also informed me that the children had made such statements but, in his opinion, there was no merit to this accusation.

That was just them using an excuse. My perspective on that is 'no', I don't see any relationship between Linda and the way she has been using [cannabis], and her history of [heroin] use either, as having any relationship whatsoever to whatever Chris and Heather have got involved in.

Despite holding down a job and a long-term relationship, all maternal family members described the children's father as having drug and alcohol-related problems. Linda stated that her ex-husband was in the nightclub business, and that he was "an alcoholic who won't admit that he's got a drinking problem and there are all sorts of other drug situations that have happened in the house while Chris has been there." Hence, their father also represents a significant role model for the children and is likely to have also influenced their attitude towards illegal drug use. All family members informed me that moving in with his father at the age of about 14 had been Chris's downfall. As Linda stated, "My son has substance abuse problems which are huge." Heather disclosed that her father openly used cannabis and other illegal drugs in front of (and with) his offspring. She told me that:

My brother lives with my dad and I know Dad uses a lot more than just cannabis and Chris has grown up seeing that side of it. Dad was a lot more lenient [than Mum] and the way that he smoked weed was a lot different [than the way Mum did], so I think Chris would have done that [moved in with his father] because he could get away with it [cannabis use] more, and that led onto other things. He started using other drugs because he could and because Dad would let him. Yeah and they still do drugs together even though my brother now has a very heavy, serious drug problem; they still use drugs together, which I don't really understand.

When it came to Chris's drug use, Paul noted that sometimes things spilled over into their home, and stated that:

I certainly don't like having the space trashed and run over, and at times, it has been but only, as best as possible, only temporarily and order is restored, so to speak. And that, for me, has always been a little bit of an issue because it has always involved a background of drug use and the dealings that go on with the use of it. And, so my philosophy has been, well, you can do it, but it won't happen here.

It was important to Paul that the drug-using lifestyle of other family members was kept out of his home. He noted that

has probably made things difficult at times but that has been my view and I have tried to make it that way, so even though I don't smoke and don't have an issue with Linda and it is around me a lot, I do have fairly strong sentiments about it interfering or wrecking, you know, disturbing life to any great extent.

Therefore, despite the implicit message that drug use was something that can be controlled, the children were explicitly given the message that their drug use should be kept away from the family home. Heather informed me that wanting to be able to drink and use drugs in her own home was one of the reasons why she was moving out. In this sense, it could be argued that Heather was following her brother's example, as well as her mother's.

Linda had provided her children with a model of well-controlled use of cannabis and the knowledge that their mother was able to immerse herself in a drug-using subculture in her youth and then leave it behind. In addition, they saw their father openly using illegal drugs and apparently maintaining employment and a long-term relationship. Hence, these parents, especially mother, have modelled patterns of illegal drug use that to some extent counteracted stereotypical media portrayals of extreme drug addiction. Hence, the young people in this family may have developed an attitude that made them over confident about their ability to control their use of drugs. Linda viewed the use of drugs as a normal aspect of life that we all have to navigate and believed that genes played a strong role in the development of problematic AOD use, stating:

I think it's genetic basically. It's in your genes if you're going to be an alcoholic or have other substance abuse problems. Yeah, sometimes I don't think you've got a choice. No,

it's there [drugs] and its part of life to explore that and to go through it and come out the other end if you're lucky. Yeah.

Linda's children also seemed to view the exploration of illegal drugs as a normal 'rite of passage' that did not necessarily lead to drug-related problems. Heather disclosed that:

A lot of my friends right now, they still have normal jobs and go to work all day and then they smoke a lot of weed at night time and stuff but they still function normally. You don't have to be a druggie to smoke weed. Cannabis use is something that you grow out of. It has to fit into your lifestyle. As far as other drugs go, I don't do them during the week and in my head that makes it okay. It is okay to do those as long as it is in a party environment, when everyone else is doing them and it doesn't turn into doing them by yourself at home. I think that is where it turns, when you find that you need it to function in everyday life.

Validation/feedback Interview

For validation purposes, a validation/feedback interview was completed with Linda, the nominated cannabis user in this family. Linda confirmed that the case study, as presented above, depicted an accurate representation of her cannabis use and her family's drug use. Confidential information provided by her daughter, such as the extent of daughter's drug use, was removed from the document read by mother so as to ensure Heather's confidentiality was not breached. As the second interview was conducted four years after the first interviews took place, it also allowed the opportunity for long-term follow-up with regard to the use of drugs in this family, as well as clarification of some points, such as how and when the children became aware of their mother's historical drug use and the implications of this.

Linda explained that she had not always been open with her children about her historical drug use which occurred between the ages of 17 and 23 and peaked between the ages of 19 to 21. She explained that her decision to share this information about her past was strongly influenced by her ex-husband who was threatening to tell their children that their "*mother used to be a junkie*". This conversation occurred when the children were adolescents and in the context of Chris developing problematic drug use that saw him placed in juvenile detention for antisocial behaviour that occurred when he was under the influence of ATS. In this context, Linda decided it would be better to tell them her own story and this was how the children became aware of their mother's past history as an injecting polydrug user. Linda said that she now wonders "*if I'm too liberal as a parent*" and if things would have been different "*if they hadn't known about my past*". Both of her children subsequently found less reason to take on board parental advice about the risks of drug use, stating, "*Why should we listen to you?*" Linda feels that her children's

knowledge that she had managed to make a natural recovery from heroin use has possibly made them overly confident about their own ability to manage their drug use.

As predicted, Chris's problematic drug use had worsened over time despite a period of some stability when he resumed living with his mother. Linda stated that Chris became an intravenous methamphetamine user and was jailed for three years for antisocial drug-related crimes. Linda explained that at the time of his release from jail, Chris was well supported and healthy. He was provided with housing and employment but nonetheless underwent a *"slow decline"* back into problematic drug use. Linda said that Chris became a father and he and his child and partner then resided with Chris's father again but Linda stated that things did not go well as they were *"all using ice"*. Chris subsequently developed drug-induced psychosis and consequently *"lost both his partner and his child"*. She also described how things deteriorated into violence with stabbing and hitting between Chris and his father. Mother subsequently organised for Chris to spend seven months in an overseas drug rehabilitation program, however, within six weeks of his release, Chris had developed problematic alcohol use. Linda said that during Chris's drug treatment it came to light that he had been sexually abused between the ages of 6 and 12 years by an older boy in their neighbourhood. Mother now understands that this has been a significant factor in her son's ongoing desire to use drugs. It is also likely that Chris's original desire to move in with his father may have been further motivated by the desire to escape his abuser. At the time of the validation interview Chris was again being treated for drug-induced psychosis and Linda continued to support him through appropriate mental health and treatment referrals.

In regard to her daughter, Linda stated that she is now aware of the extent of Heather's drug use. Linda said that Heather also went on to develop *"an ice habit"* and *"had huge drug problems"*. Mother still worries that Heather *"lives on the edge of drug problems"* particularly as she has gone in and out of working in the night club industry, finding it difficult to resist the lure of a high income. Linda said that Heather eventually moved back into the family home and has attended counselling to deal with the issues underlying her drug use, such as her brother's abuse and her relationship with her father. Heather is now *"working in the retail industry, has a nice boyfriend and is happy"*.

Summary and Conclusion

The nominated cannabis user in this family was the mother, Linda, (aged 50) who lived with her long-term partner, Paul, (54) who did not use cannabis or other drugs. Linda was mother to two children but had separated from their father 14 years previously. Paul had been stepfather to

the children for approximately 12 years. Linda had been smoking cannabis for some 35 years and noted that her cannabis use had gradually reduced over the years. Overall, Linda reported little harm due to her cannabis use, which she argued was well managed, and this view was supported by her daughter, Heather, and her long-term partner. That Paul was not a cannabis user himself lends weight to the findings of minimal harm as Paul had very strong views in this regard. Linda noted that both her driving and her judgement were impaired when she was under the influence of cannabis and Heather also noted that she could not drive when she had been smoking cannabis. Linda expressed concerns about random roadside drug testing given that cannabis can produce positive test results days after it is used.

In terms of reducing harm, Linda had learned through experience not to increase her cannabis use in response to feeling depressed as this would only make her feel worse. She was also aware that using cannabis could make her antisocial, lazy, and unmotivated, particularly if she was already leaning that way. She noted that it could be used as a means to cope by staying stoned to avoid dealing with problems and thereby failing to address important matters. Furthermore, Linda emphasised that it would be difficult to handle an emergency or concentrate on something important, such as the supervision of young children, when under the influence of cannabis. Linda argued that using cannabis throughout the day when caring for children was problematic and inappropriate, particularly if there was a lack of routine and structure. Hence, Linda made decisions to limit her cannabis use to times (usually once a week) when it would not cause harm to anyone and she emphasised that harm was reduced through limiting her overall cannabis use and seeking out milder strains of cannabis that produced a milder state of intoxication.

Heather was unable to identify any particular harm associated with her own or her mother's cannabis use, although she knew people who had developed patterns of cannabis use that were harmful because it could reduce the motivation to complete school or care for young children. Heather believed that using cannabis increased the likelihood of using other illegal drugs. She noted that having parents who used cannabis had made it easier for her to use cannabis with impunity during her adolescence. Linda was open about her use of cannabis and Heather also saw her older brother and her father and stepmother using cannabis and other illegal drugs, hence, it was not seen as a big deal in this family. The children both accessed their parent's cannabis from a young age contributing to the children's early initiation into cannabis use and their liberal

attitudes toward the use of drugs. This finding emphasises the importance of parents keeping their cannabis stored somewhere safely out of access from curious children or teenagers.

The range of illegal drugs regularly used by Chris and Heather suggests a permissive attitude toward drug use. Although young people were not blatantly exposed to illegal drug use in their mother's home, their father permitted them to use cannabis openly in his home when they were teenagers. Father also used cannabis in front of and with his adolescent children, and has gone on to use other illegal drugs with his son. As young adults, both children were aware of their mother's youthful drug use and their father's ongoing use of illegal drugs. Bearing witness to their parents' ability to manage their drug use over the long-term has possibly contributed to unrealistic notions of their own capacity to manage the use of illegal drugs. It is likely that these young people were more willing to indulge in risky drug use than young people from more conservative backgrounds, whose exposure to drug use is frequently limited to stereotypical media portrayals of extreme drug addiction. Hence, despite the fact that their stepfather did not use drugs and their mother provided a positive role model through her moderate and well-controlled use of cannabis, the children were no doubt also influenced by their mother's historical drug use and father's ongoing use of illegal drugs.

Family 3 Case Study

Family Background

This family consisted of Anthony (aged 36) and his wife, Tamara (33) and Tamara's sons, Jarrad, who was 14 when interviewed, and Colin, who was 17 when interviewed. Jarrad and Colin were approximately 18 months apart in age, however, the interview with Colin took place some 12 months later than the other family interviews. This was due to Colin living with his father when the other interviews took place; Colin was subsequently included in the family case study because he moved back in with his mother and stepfather. Anthony was the nominated cannabis user in this family and Tamara was not a cannabis user. Although Anthony suspected that Colin was aware of his cannabis use, neither parent had discussed this with the boys, so there was no reason to believe that they had knowledge of their stepfather's cannabis use. Tamara's relationship with the boys' biological father broke down in the year following Jarrad's birth; hence, Tamara had been a single parent for approximately 10 years prior to her current marriage. Anthony and Tamara had been married for 2 years and lived together for 18-months prior to getting married. Tamara had known Anthony for over 10 years before they cohabited.

When initially interviewed, Anthony was in the first year of an adult apprenticeship in the building industry, and Tamara had just completed an undergraduate degree at university. Tamara was working part-time and the family was on an income of approximately \$55,000 per annum. They were adjusting to a reduced household income because of Anthony undertaking an adult apprenticeship. The family were living in a modest but well-presented rented house in the Western suburbs, where both boys attended high school. Tamara responded to a flyer displayed on the university notice boards.

Parental Drug Use

Tamara said that she had used cannabis briefly when she was 16 or 17. She said that when her father found out *"He was fine. He never said 'you can smoke it around the house or not.' He was just fine with it, wasn't bothered at all."* Tamara said that her dad was *"cruisy like that but we weren't allowed to drink."* As a teenager, she was able to discuss the use of cannabis or ecstasy openly with her father, whom she felt *"had a real lax view about it"* even though he did not personally use illegal drugs. Her father was not particularly concerned about the legal sanctions simply stating, *"It is just what it is."* Tamara described her current cannabis use as minimal, in that she would partake about once every year or two. Tamara usually found that cannabis made her feel like *"a bit of a loose cannon. I just get paranoid, so I'd rather not [use cannabis]."* Tamara described her use of alcohol as minimal and mostly social; she had never been a cigarette smoker. Apart from having twice tried ecstasy some two years earlier, Tamara had no other experience with drugs. Hence, her drug use had been minimal despite her father's 'lax' views about drug use.

Anthony had been using cannabis regularly for 17 years; he had relocated to WA from a rural community interstate to distance himself from a lifestyle in which cannabis played a central role. He stated that he drank very little alcohol (2-3 cans per month) and had not used other types of illegal drugs. Anthony was smoking joints made from *"buds mixed with a little bit of tobacco to make them burn evenly."* He said that he would prefer to have access to *"good bush buds"* as he did in NSW but found that hydroponic cannabis was more readily available in WA. When interviewed, Anthony said that he was currently smoking two or three joints several times per week at a cost of about \$50 per week. For Anthony this represented a reduction in recent use as he had been smoking two or three joints almost every night prior to cutting back to weekend use, primarily in the evenings. Although Anthony felt that he was now using cannabis in a responsible way, he acknowledged that he was struggling to keep to his budgeted *"cannabis allowance"*, which was reduced considerably due to the large reduction in his income since undertaking an

apprenticeship. Anthony felt justified in spending \$50 per week on cannabis given that he rarely spent money on other things, such as alcohol, clothing, or social excursions. Anthony had a personal allowance in the family budget and he usually spent this on tobacco and cannabis. Anthony smoked about five rollies every day, and said that this provided him with a “cover” for smoking joints, which he tended to smoke “discreetly” when he was alone in the back yard of the family home. During the evenings, when he was stoned, Anthony tended to play interactive online war games on the computer or play the guitar.

When asked to describe her husband’s pattern of cannabis use, Tamara said that, *“It changes. I think it is cyclic. It depends, because if it is times of stress, he will come straight home and have a joint but then if it is not...”* Tamara described how Anthony’s level of cannabis use had decreased in the four months since he had commenced an apprenticeship. Her statements were consistent with Anthony’s description of how he had previously used a lot more cannabis than he currently did. However, Anthony said that he had recently reduced his cannabis use to several times a week, mostly on weekends, whereas Tamara described his current use as daily. *“Oh, he would have it every night. Definitely.”* Although Tamara agreed that Anthony was spending less money on cannabis than he had done previously, she was still certain that he was smoking some cannabis on a daily basis. This discrepancy might have been because Anthony’s most recent reductions in use were quite recent and had, therefore, not yet been sustained over time.

Tamara said that she could usually tell when Anthony had been smoking cannabis because *“he becomes very focused on what he [is] doing, like he is really into this battlefield computer game.”* Tamara confirmed that when Anthony was stoned he used to play his guitar a lot but these days he usually played an online interactive game with his “mate” in NSW. Although Tamara said that neither getting stoned nor playing online computer games was causing any issues in their relationship, she did think that, *“to get ripped and go on a computer game [was a] teenage thing to do.”* Anthony’s cannabis use was confined to using alone at home and there was no social element to his use, except that he would *“talk to his friend [in NSW] on the phone, and his friend will be stoned as well. They will have a chat and get online and they are bent together, so that is how he socialises. They are socialising, even if it is through the internet.”* Tamara had a social life that she described as similar to other women her age, who tend to do things together socially while their husbands stay at home with the children. Tamara said, *“A lot of males are like that. I talk to all my friends and they are not [cannabis] smokers or anything and they [the male partners] stay at home on their own while their girlfriends go out.”* Tamara argued that the way they

socialised was quite typical of couples in their early thirties. She said that, at this stage of their lives, “*Men still have mates at work, but they don’t really go out with them once they are in a relationship.*” Tamara said:

Sometimes on the weekends when we don’t have the kids or anything, he will go and have a smoke and that pisses me off a bit because it is our time and he goes and has a smoke and just gets on the computer. Actually I think it is more the computer [than the pot] because even if he didn’t have a smoke he would get on there anyway. Yeah. I don’t think it is the pot. He has always been a pot smoker, so, yeah.

Therefore, Tamara did not feel that Anthony’s cannabis use had negatively affected their social life or the marital relationship.

Benefits of Cannabis Use

In describing the benefits of cannabis use, Anthony said that he smoked cannabis for “*the same reason that I drink tea – because I enjoy it.*” He argued that when doing menial tasks, cannabis allowed him to focus more, and to take his time and do a better job. Anthony also believed that smoking cannabis made one “*a better person.*” In his case, he felt that it “*opened [his] mind up*” and increased his capacity to consider other people’s perspectives. In Anthony’s opinion, “*If the whole world smoked dope, if every night they went outside and had a joint, I think the world would be a better place.*” He felt that cannabis moderated his personality style in a way that made him easier to get along with. When Anthony was 23, his stepfather died of cancer and this loss saw Anthony undergo an existential crisis in which he questioned his own mortality and that of the human race. Without cannabis to “*mellow*” him, he finds that he will “*focus on all that stuff too much and I start to annoy people.*” He said that he becomes:

Not quite obnoxious but I challenge people on different stuff and push the boundaries and not many people like that. It doesn’t matter whether the issue is politics, the environment, world status, whatever.

Tamara agreed that Anthony’s cannabis use was “*a self-medication thing.*” Consistent with Anthony’s account, Tamara said:

He has got some ideas about the world and about how it is supposed to be, the monetary thing, and the power, and how the world is pretty unfair toward some people. He thinks about greed and power and the multinationals but we don’t want to think about that. But he does think about it and he does suffer. If he doesn’t have [cannabis], he seems to have these ideas, that the world is really unfair, like higher moral ideas and when he has pot it sort of quiets those ideas down. When he has pot he doesn’t think about stuff like that and it doesn’t get to him.

Tamara believed that this type of thinking had to do with his parents, as well as Anthony being “*gifted*” in terms of intelligence. Tamara viewed her partner’s cannabis use as beneficial.

It helps him to be able to take a step back from that or take the edge off or something. It reminds me of quieting voices and I don't mean that in a schizophrenic way but it is just that there are these ideas that [he has] about things and it just sort of quietens them down. It helps him focus. if he doesn't have it for a long time, like if he doesn't have it for 3 months or something, he will experience [those thoughts about] the world and everything.

Hence, Tamara felt that using cannabis alleviated a certain line of ruminative thinking that made life easier for Anthony and those around him.

Potential for Harm

Anthony acknowledged that he had seen people become quite dependent on cannabis.

I have seen people overdo it, some of my older friends who smoke too much and lose the plot. They spin out when they haven't got any dope and that sort of stuff. I remember seeing them and it was a bit of a benchmark for me. Why would you want to be like that? I don't want to be like that, to have to have things to be able to function, and if I haven't got it, well, it's no good. It has got you then. It doesn't matter if it is marijuana or whatever, potato chips, anything, as soon as you start relying on too many things, well you just sort of disadvantage yourself, and you need more to function.

Despite having used heavily in the past, Anthony did not feel that he was dependent on cannabis.

Anthony noted that when he runs out, *"I sometimes get that niggly little bit of a feeling but I remember and I think, 'no, tomorrow will come', and it might be next week before I have another joint."*

Anthony acknowledged that in a previous job he had *"worked for probably 12 months stoned every day,"* however, at the time of interview he had adopted a policy of completing all work-related obligations prior to using any cannabis.

I normally try to make sure I get things done. If I have to talk to bosses or anything to do with my work I get all that sort of stuff done first and when I have finished with all my obligations, then I'll just go out the back and have a joint and come back in and do whatever I have got to do.

Anthony usually waited until he was settled at home for the evening before smoking cannabis.

I don't drive cars stoned any more whereas I used to. Not so much because it affects my ability, I would probably say I am a better driver when I am stoned, it is just that with liabilities and insurance, a little thing can turn into a big thing very quickly.

Tamara confirmed that Anthony usually went out the back for a joint after he had prepared the family's evening meal.

Anthony acknowledged that when he lived in New South Wales he would consume between ½ an ounce to an ounce per week, which would cost between \$150 to \$300 in the current market;

his cannabis use at this level could be described as heavy or excessive. He stated that cannabis was cheap there at the time and that sometimes he got paid in cannabis rather than cash. He would then sell some to his mates and keep some for himself. Anthony acknowledged that it was a “*different lifestyle*” and that he had lived that way for about 12 years. “*Everybody I knew there smoked.*” He said that it was a rural community and that they would often smoke a joint in the middle of the morning before starting work, such as fencing.

Anthony acknowledged that he tends to be a “*bit sharper witted*” when he is not smoking so much but finds that he also gets “*a bit challenging on stuff*,” referring to his tendency to be overly serious about life. Anthony has found that cannabis enhances his existing mood, so that when he has been “*pretty down, it didn’t help me, it just sort of made my downer more enhanced.*” In terms of the overall potential for cannabis-related harm, Anthony believed that:

It depends on how you use it. It is up to you. Like if you get up every morning and the first thing you do is pull cones and you don’t eat breakfast and then you sit in your chair all day watching telly, pulling cones, or playing on the computer, and then you are smoking cones in the night and you don’t do any exercise, then it is not really the dope that is hurting you, it is your lack of effort. If you still put in effort, and exercise and get out and do that sort of stuff, well you are minimising the physical harm it can do but, yeah, if you overdo it, it is like anything I suppose, like if you drink too much water it can make you sick.

Hence, Anthony argued that it was the lifestyle and level of drug use that could see individuals experiencing problems related to their cannabis use.

Anthony recalled that following the loss of his stepfather he went from “*having the gift of the gab to not being able to speak to people at all.*” He did not seek any professional help and relied heavily on cannabis throughout this period. Anthony acknowledged that it “*probably slowed my recovery down because I smoked too much of it.*” However, on the other hand, Anthony argued that if he wasn’t smoking cannabis he might have “*ended up in jail or something*” as he was not coping at this point in his life.

As he was no longer a part of a social network of cannabis users, Anthony has found that to obtain cannabis he has to associate with people he would not normally socialise with. Anthony would prefer a system that allowed for the legal purchase of cannabis because he does not want to get involved with the criminal element associated with purchasing illegal drugs. As Anthony said,

I’ve got enough friends; I am just there to purchase something, it is a business deal. Fortunately, I know somebody who is fairly straight cut, you just go there, get your gear,

and then away you go. It is all easy, but that is probably the biggest down side for me, in terms of smoking dope.

Although Tamara had a liberal view about cannabis use, she acknowledged that it could be problematic for some people. She said that it was okay to “*just have a joint at night to relax you,*” arguing that problems occurred with increased quantity rather than by “*using daily.*” She felt that Anthony’s use was similar to “*when oldies have a little bit of rum or brandy at night to help them sleep. It is the same sort of thing and you know that they are not heavy users or alcoholics, they just have a little bit to go to sleep.*” Tamara was suggesting that daily use does not necessarily equate with problematic use.

Tamara noted that Anthony was inclined to increase his cannabis use in response to stress, however, she said, “*It depends [on] what sort of circumstance. If it is work-related, he can’t though.*” She went on to explain that:

Because he used it as a stress-reliever he doesn’t know how to cope normally when he is stressed, which is the same as for people that drink and that sort of thing. So his skills at handling stress aren’t that good, not that he is one to lose it anyway. He is one of those real mellow people but when he is really, really stressed, he is not very good at coping with it.

Hence, Tamara noted that Anthony used cannabis to keep him calm when things got stressful. She said this was “*Fair enough. Some people go and breathe or hit something or whatever to release that stress and so it is like a natural sort of reaction I think.*” Despite Anthony’s use of cannabis to cope with stress, Tamara did not feel that his cannabis use had ever reached a point during their relationship where it had been problematic.

At its worst, when Anthony was in a particularly stressful job, “*He would come home from work at 4 o’clock and he would just smoke and shut himself away*” but eventually he “*just changed jobs.*” Tamara said that this went on for about a month:

It was pretty bad; he would just be in total isolation. He would shut the door and go outside and we would hardly ever see him but that is the only time, when he was really highly stressed. It was more of a breakdown through stress, through work.

Tamara argued that, given the circumstances, there were worse things Anthony could have done to cope, than withdrawing from the family and using cannabis. She thought that other men facing similar stress might have been “*losing it and throwing stuff, so it was probably better really when you think about it. Less damaging to a family to just shut yourself away and smoke.*” Tamara believed that Anthony was capable of monitoring any physical effects of over-indulgence in cannabis.

Like if he starts getting chesty or whatever, he will say, 'oh, I am probably smoking too much,' and that could be the cigarettes as well, but he does say 'I am going to back off for a bit now.' So he really reads the signs for himself.

When asked what Anthony was like when he was unable to get any cannabis, Tamara described him as getting “a bit edgy” but noted that usually she didn’t know whether he had any or not. They had an arrangement whereby Tamara preferred to know as little as possible about Anthony purchasing cannabis.

I told him I didn't want to know about getting the pot and all that sort of stuff because it [was] such a drama, having to go to these people's places. I have said, 'okay, I don't want to go there with you. That is your stuff.'

Tamara sympathised with Anthony’s need to:

mix with people that are doing harder stuff, selling other stuff. You really don't want to be in that environment [that] has got a criminal element. It becomes criminal. I don't want to be involved with that, it is not my thing.

Tamara protected herself and her family from exposure to this aspect of Anthony’s drug use by ensuring that she was not in the vehicle when he stopped somewhere to purchase cannabis. She had made it clear that she would not sit in anyone’s driveway waiting for her husband to obtain cannabis. Tamara coped with him “going off to strange houses” by ensuring that she was not involved. When asked if it bothered her knowing there was an illegal drug in the home, Tamara said:

I don't think of pot that way. I don't think of cannabis as an illegal drug. It is just a bit of pot. It is not like pills or powder or anything like that. It is just pot. You can grow it in the ground ... I think it is decriminalised anyway.

Thus, Tamara did not view possession and use of cannabis as a criminal activity. Nonetheless, she was minimising any risk of legal consequences to herself by not having knowledge of drug purchases or drug dealers.

When it came to her husband’s cannabis use, Tamara’s only real complaint was in relation to the cost of cannabis use. “That pisses me off a bit because sometimes it is \$50 and sometimes it is \$100 a week and he is on quite a small income. Yeah, that annoys me but he has got an allowance now.” Anthony’s allowance was \$110 per week, whereas Tamara’s personal allowance was \$70 per week as she did not have expensive habits. Having been a single parent for a long time, Tamara was very budget conscious. She noted that:

It is bloody expensive really for what it is. I could buy a bottle of wine for \$10 and it would last me all week whereas he has to have, he doesn't have to but he sort of does

have to, because he likes it. I suppose it is the amount rather than what it is, so it is not really the cannabis that is an issue – it is just expensive from my point of view.

Tamara calculated that Anthony's allowance, which was primarily used for cannabis and tobacco, currently accounted for approximately 10% of the family's weekly budget. Anthony was purchasing cannabis in "little bags" that are usually sold for \$25 or \$50 each depending on the quantity. We discussed the fact that it was much more economical to purchase larger quantities of cannabis (i.e., by the ounce rather than the gram), however, Tamara said that this was not a viable solution because "if Anthony gets one of those [big bags] he will smoke it. We have tried that." Hence, the purchase of small quantities, Although increasing the cost substantially, allowed Anthony to minimise his use because he would make his limited supplies last longer, whereas if he had larger quantities he would simply consume more because it was there, defeating the whole purpose of buying in bulk.

Tamara noted that:

Sometimes when Anthony smokes he goes off on tangents and drives me nuts, just talks absolute crap. Well, it is probably not crap to him but he'll just talk crap and I think 'great!' [said with sarcasm] because you know when you hear the same story over and over again, sometimes he does that and it drives me nuts.

This is consistent with Anthony's description of how the main effect that cannabis had on his behaviour was to make him more talkative. Tamara did not believe that Anthony's cannabis use had any detrimental impact on their marriage or family life. Tamara said that most of her friends' husbands drank alcohol and she felt that "alcohol would have a worse impact. Out of the two evils, I think it is a better way to go, less of a poison, less toxic." Tamara described how she had seen images of her dad's brain and explained that it had shrunk due to him being "an alcoholic." She argued that the harms associated with cannabis use were less than those that might be experienced with alcohol use and insisted that Anthony's use of cannabis had not negatively impacted on her family.

He is functional, definitely functional; he basically just does it to relax. It is good; he is more relaxed. It just depends, if that works for you and you can still carry on every day and work [then I don't see it as a problem].

Hence, Tamara supported Anthony's use of cannabis in that she felt that overall it was beneficial to him.

Parenting

Anthony mentioned that he did not identify strongly with the parent role. However, Tamara described Anthony as a good father; who cooked their evening meal, helped with decision-making

and homework, accompanied them on family outings, and would sit down and discuss relevant issues with the boys when the need arose. Anthony argued that having a joint at the end of the working day was *“no different than coming home and having your dinner or whatever, and having a beer after dinner”* except that beer *“will make me feel defective more than what a joint does.”* Although Tamara was not a cannabis-user, he did not believe that his cannabis use had caused any problems in their relationship. He was aware that, *“She didn’t like it for a while”* and believed that this was because she was worried about what other people might think. Although Anthony refrained from using cannabis when he had to drive or carry out work-related tasks, he was able to undertake mundane household tasks, such as cooking dinner, despite being affected by cannabis. In fact, Anthony argued that if it was not for *“the red eyes and there weren’t the legal responsibilities, then I could probably be quite functional smoking every day.”*

Despite his view that the world would be a better place if everyone smoked cannabis, Anthony did not advocate the use of cannabis by people who were responsible for the supervision of children. His main concerns were that parents might be more worried about ensuring a supply of cannabis than about looking after the needs of their children. Anthony argued that rather than being particularly impaired by cannabis use, the main issue was the potential for legal action.

It is all the legalities of it and even though you could do it [look after children] exactly the same as you do when you are straight, say one of the kids tripped over out the back and smashed their head open or whatever, and all the different people come around and they find out you are stoned, well straight away they are going to be pointing the finger at you. Whereas if you weren’t stoned you would have been watching. What do you call that? It is a weakness in your defence pretty much.

Anthony also said that he didn’t feel it was appropriate to be using cannabis when you had responsibility for young children or babies because *“you might have to drive to the hospital, or deal with ‘heavy’ stuff that you don’t want to be dealing with if you are whacked.”* Anthony argued that it was best to refrain from smoking cannabis until *“all the ‘heavy’ stuff is done.”* In other words, Anthony thought that it was important to prioritise responsibilities associated with employment and childcare over using cannabis.

There had been no discussion with the children in this family about cannabis use and there was no reason to believe they were aware of Anthony’s use. Apart from being more talkative, Anthony did not believe that his behaviour was noticeably different when he was stoned, however, he was convinced that Colin knew that he was smoking cannabis. Although there was no

discussion that might have confirmed Anthony's view that Colin knew about his cannabis use, Anthony was certain this was the case:

I know Colin [knew]. He did for sure. I didn't say anything in front of Tamara but I knew that he knew ... he could tell by my nice red eyes, they were a giveaway every time. I would come in from outside and he is the sort of person who would look at you and I could see his reaction, like that he had seen my red eyes and he definitely knew ... He knew all right.

Tamara was certain that neither of the children were aware of Anthony's cannabis use. She was sure that if Colin did find out, he would bring this to his mother's attention. As the children in this family were not aware of their stepfather's cannabis use this was not explored during their interviews.

When interviewed, Colin was 17 years-old and was completing Year 12 with the intention of attending university the following year. Colin described his family as "normal and okay." He explained that he had been living with his father and stepmother and visiting his mother's home every second weekend but had moved back in with his mother because he was spending too long travelling to school from his father's home and all his friends lived close to his mum's home. The boys were spending every third weekend with their father who was a fly-in fly-out worker. Colin said that he moved in with his father following an argument with his stepfather. Colin told me that living with his father was very different because his father was away for two weeks at a time and it was often just Colin and his stepmother. As his father and stepmother had separated, this was no longer a viable arrangement. Colin said that things were "back to normal" with his stepfather and they were now getting along "all right." Colin noted that having two families was:

like crossing over two different social groups. Because dad doesn't see us as often, when we are there he tends to spoil us, like we will go out all the time and go out to dinner, we will go to the movies, whereas here that would be a sort of special treat.

Colin noted that because there was often only he and his stepmother at home this pattern of eating out and going out had continued when he lived there full time. Despite becoming close to his stepmother, Colin had not spoken to her since the separation some months earlier.

In terms of his current lifestyle, Colin told me that he had been doing gymnastics until a recent injury had brought that to an end. He said that he spent most of his afternoons doing homework. "Like the other day I did about four hours of chemistry homework in just one full block and then I do like half an hour on a few other subjects, that's sort of homework". Like other teenagers, he spent a lot of time on the computer. "I go on Facebook a bit and I am into technology forums and news updates and stuff like that, I go on them." In his spare time, he

watched a bit of television and was working as a shop assistant on Saturdays. This had allowed him to save up to buy all the components to build his own computer.

Colin informed me that his father was completely focused on school.

He thinks that is the only thing that matters. I think it has to do with him; he left school when he was younger than me and has always done sort of construction or mining work.

Although his father makes good money, Colin said that his father wants Colin to pursue a career rather than a manual job. Colin had explored career options and was keen to gain entrance to a course related to health and medicine, although he did not expect to get the grades necessary for medicine. *“She calculates your [predicted] TER roughly and mine was 90 and you need 93 or 94 to be a doctor.”* Colin believed that his success at school was unrelated to father pushing him; he argued that it was because he enjoyed school and had managed to find a good balance between studying and socializing. Hence, Colin was doing well academically, was employed part-time giving him an independent income, and was socially integrated with like-minded peers.

The family was present nearby while I interviewed Jarrad, aged 14. Jarrad had been asked to take some photos relevant to a discussion about his family life. The photos were intended to facilitate discussion with younger adolescents. Jarrad was told that the purpose of the interview was to find out what family life was like for teenagers in different families. Anthony had taken photos of his stepfather, he and his mum, his brother watching television, their cat, and his skateboard. When I asked if that was his whole family, he said that it was although there was no photo of his biological father, with whom his brother had recently been living. When asked what the most important thing about his family was, Jarrad said that would be his mum, his brother, and his ‘dad’ [referring to his stepfather, Anthony]. When asked what sorts of things they did together as a family, Jarrad said that they lived together (although his brother had not been living with them for 6 months at that point, he had just moved back in that day) and sometimes went out together as a family. He gave an example of them going out laser shooting recently for a friends’ birthday party.

Jarrad had completed Year 9 and described how on a typical school day, he would get up, make his lunch, and get ready for school. He would go to school on his skateboard. He liked some of his classes, such as English, science, and pottery, but said he did not like some of his teachers. Jarrad would often be the first to arrive home after school, although when Colin was there, he would get home first, followed by mum, with Anthony being the last one to arrive home. After school, Jarrad said that he did his homework and then *“I play on the computer and stuff and wait*

for mum to come home." He had football training twice a week. Jarrad said that he used to have friends over or go to their place, but this had not really happened much lately. Jarrad had been playing football for three years, competing on Sundays. He said that sometimes mum would drive him to football and sometimes Anthony would. Whoever dropped him off would usually stay and watch and sometimes both mum and Anthony came to watch him play. Colin had not been to see him play football because he was not home much on the weekends. Jarrad said he used to ride his bike a lot but was mostly into skateboarding and football at present. Jarrad said that on weekends he would sometimes watch movies, catch up on homework if there was *"an essay or something due"* or he might go out and visit friends, *"like friends of mum's and stuff."* When asked to clarify who went, Jarrad said that they went *"as a family."* When asked if there was anything he did not like about being his age, he said, *"the days go a little bit too fast – there is not enough time."* Jarrad agreed that it sounded like his was a normal teenage life, with school, homework, sport, and movies. Jarrad presented as a quiet, well-behaved child who did not have a lot to say on the topic of his family. He and his brother were well-adjusted adolescent boys who had good relationships with their parents and were doing well academically and socially. Their mother and stepfather provided a secure base from which they could safely explore the world and there was nothing to suggest that their stepfather's use of cannabis had been detrimental to their upbringing.

Use of Drugs by Young People in the Family

Tamara was certain that her sons did not know about Anthony's cannabis use despite the fact that Anthony was convinced that Colin had noticed it. Tamara felt strongly that if Colin knew he would be compelled to mention it. *"I think he would say something for sure. He would definitely challenge [us] on that, like any teenager would."* Tamara described being *"very open"* with her children in terms of discussions about drug use, citing how a recent news story about *"bad ecstasy"* had prompted her to talk to the boys about how she hoped that if they wanted to try anything like that, they would do it safely. She told them to *"make sure that you have precautions and that your friends know that you have done it and you have taken it off someone else that has already used them."* Tamara argued that they would probably do these things anyway *"because a lot of the young ones do."*

When asked what sort of advice Anthony might give to his stepsons or their friends if they began to experiment with cannabis, Anthony said:

I would tell them to wait until they have grown brains. Wait until you are 17 or 18 years old and your brain has developed before you start to play around with that sort of stuff. If you start smoking dope at 15 years old, and you smoke heavy, you will be a dead shit by 20 because your brain has not developed, it hasn't fully grown yet. That would be my advice to them because you can't tell them not to do it. Yeah, just tell them to wait; you will get there in the end.

Tamara said that if she had to counsel her sons about using cannabis:

I would just let them know the effects it has, like respiratory and that sort of stuff, and the lack of motivation that it can have if they get into it when they are young and they get into smoking a lot of it. I would probably let them smoke but I wouldn't let their friends come over and smoke because that is not my responsibility. But, yeah, my dad did it [let them smoke at home] and it was just a kind of turn off for us. We just didn't want to do it after 17 or 18 because he didn't care and it was just so accepted. You didn't have that rebellious element and it all just becomes not challenging at that age.

Tamara went on to say that:

I would rather have him use drugs in my house [where] I can see his behaviour rather than out there in that high risk [peer setting] because when you first experiment, you do some silly things with your mates and show off and I would rather it be in the home environment so I can see what is actually happening.

During her initial interview, Tamara noted that in terms of using drugs, her oldest son Colin was “not there yet. No, he doesn't even drink alcohol; he is quite square.” She noted that he had consumed alcohol at a party on one occasion but that he currently avoided some of his former friends because they liked to “go to parties and get drunk.” Tamara described Colin as a studious young man who was “in an academic program and wants to do well.” Tamara predicted that Colin might eventually show an interest in using ecstasy “because he likes a bit of rave music” and “has that sort of personality,” whereas she felt Jarrad would “probably be a drinker.”

When I interviewed Colin (a year after I interviewed his mother) we talked about the use of AOD by his peer group as Colin told me he would be using some of his savings to go on ‘leavers’ when he finished his Year 12 exams. He described leavers as “a big party” and talked about plans to go to Dunsborough and Rottnest Island with all his school friends. He informed me that he usually goes out with his friends on Friday nights “but we don't drink or do anything like that because most of us have work in the morning.” He said they would usually go to parties at people's houses on Saturday nights but had not done much of this lately as they were preparing for their final exams. Having mentioned that drinking alcohol and smoking weed were fairly normal at this age, Colin confirmed that there was usually a lot of drinking at these parties but noted that “my group of friends are nearly all athletic, they do sports and stuff, so none of them smoke; no-one really smokes in our group.” He confirmed they did not usually smoke cigarettes or

cannabis because *“they are really body conscious sort of people, about the most we do is drink.”* He confirmed they would drink to get drunk and stated: *“I can’t count the number of times when people have thrown up.”* Despite their use of alcohol, Colin noted that he and his friends were quite academically oriented and had goals that included further education, stating that:

We only started drinking since maybe halfway through last year (Year 11); whereas I know other people who were doing non-TER subjects and they haven’t really had a plan. It is hard to get into apprenticeships and they have been doing it [drinking and weed] since Year 9 and 10. Most of my friends are in accelerated learning paths, so most of them were already academic and already quite intelligent, so they have had goals for quite a while and so they haven’t really touched on [illicit drug use] yet.

Tamara was therefore correct in her observation that Colin was not using drugs or alcohol when I first interviewed the family as this had only occurred more recently.

Colin said that initially when he and his friends started drinking alcohol, they would stay at a friend’s house when the parents were away on holidays. If they did go home, they would make sure they were *“pretty sober or back to as normal as possible and just go to sleep.”* Colin stated that his mother now knew that he was drinking because sometimes she picks him up. He said that other times someone in their group stays sober and drives everyone else home. Colin described his relationship with his mother as *“relatively close and open”*, stating, *“[Drinking] hasn’t really been an issue with mum because she knows if I am going out and drinking at the same time.”* Colin said he had not told his father because although his dad knew he went to parties, he had never returned to his father’s home after drinking and so the matter had never been raised.

Validation/feedback Interview

The researcher interviewed Tamara approximately 12 months after the initial interviews for the purpose of obtaining some feedback in regard to the findings. This led to the researcher revisiting the home to interview Colin who had since returned to his mother’s home. Inclusion of Colin in the family case study has only strengthened the findings of no harm. Anthony was in the third year of his apprenticeship and Tamara was completing a post-graduate degree. They continued to rent the same house and the boys were progressing well with their education. Therefore, despite Anthony’s cannabis use, the family had maintained a very stable life, with each member continuing to work successfully toward his or her goals and there continued to be nothing to suggest that the children in this family were even aware of their stepfather’s cannabis use.

Summary and Conclusion

This family consisted of Anthony (aged 36) and his wife, Tamara, (33) and Tamara's sons, Jarrad, who was 14 when interviewed, and Colin, who was 17 when interviewed. Anthony used cannabis most evenings and on weekends, however, his goal was to reduce his cannabis use to weekends only. When individuals use cannabis daily or near daily, they rarely go from this pattern of use to complete cessation and Anthony, like many of the nominated cannabis users in the current study, stated that he had no intention of ceasing cannabis use unless he developed health-related problems in the future. Kandel and Davies (1992) followed 1,222 young adults for 13 years and found that approximately two-thirds of those who used cannabis continued to do so regularly for many years. Kandel and Davies found that participants often experienced one period of heavy use, which tended to occur after several years of using cannabis. Periods of daily or near daily use tended to last several years but subsequent periods of daily or near daily use were for much shorter periods of time (Kandel & Davies, 1992). Having decreased from high levels of daily use, individuals were usually able to maintain a pattern of episodic use rather than heavy use. Like many of the long-term cannabis users interviewed for this research, Anthony's experiences were consistent with the findings of Kandel and Davies in that he was able to identify that he had used cannabis excessively to cope during a particularly stressful time in his life.

Despite near daily use and having used heavily and inappropriately in the past, Anthony did not feel that he was dependent on cannabis. Tamara confirmed that Anthony had "*good management*" of his cannabis use and did not drive or do anything work-related when he was stoned. Despite not using cannabis herself, Tamara was very accepting of Anthony's cannabis use because it was something she had known about him from the outset of their relationship. In this family, the adolescents in the home were not aware of their stepfather's long-standing cannabis habit. He hid his cannabis use under the guise of smoking hand-made tobacco cigarettes, which he smoked out in the back yard. His use of tobacco disguised his cannabis use and the effects were subtle enough that the boys did not appear to notice. His wife accepted his cannabis use and agreed that it was not particularly a problem although she did not like how much it cost and the risks associated with obtaining it. The family was functioning well and Anthony's cannabis use appeared to have very little effect on family life or the marital relationship. The home was well kept and the children were doing well at school. Due to Anthony and Tamara both working toward improving their careers, the family had taken a significant cut in income, and although this had seen them tighten their budgeting, the family did not appear to be suffering any undue

financial hardship. Although Tamara complained about the cost of Anthony's cannabis use, it did not create any major difficulties for them, and she was supportive of his preference to use cannabis.

Chapter IX - Discussion (Study 2)

Family 1

In Family 1, within the maternal family home, Linda tended to model responsible cannabis use and managed her drug use in a way that allowed her to fulfil the day-to-day obligations of parenting. Rather than a life that revolved around drug use, Linda's daughter and her partner of 15 years confirmed that Linda prioritised other aspects of her life, including parenting, housekeeping, and her nursing career. Linda was child-focused, appropriate, and sensitive to the needs of her partner and children, unlike drug-using mothers described in the literature whose children are often unsupervised, neglected, and exposed to violence and criminal behaviour in the home and community (Boyd, 1999; Ettorre, 1992; Inciardi, et al., 1997; Murphy & Rosenbaum, 1999). In examining the data from this family against the 19 harm reduction strategies identified in Study 1, it was evident that Linda had used the majority of these strategies in managing her cannabis use. For example, she used less potent forms of cannabis; used a minimal quantity on any occasion; she did not use cannabis every day; she refrained from using cannabis when she had work or parenting responsibilities, had to drive a motor vehicle; or was experiencing low mood or negative affect. Furthermore, Linda emphasised active problem solving; maintaining a healthy lifestyle and habits; keeping her cannabis use low profile; and providing appropriate supervision and structure in the home to ensure that children's developmental needs were met.

Adolescents are more likely to use drugs when a parent or other family member uses drugs or condones the use of drugs (Fawzy, et al., 1983; Gfroerer, 1987; Hawkins, et al., 1992; Johnson & Leff, 1999; Jurich et al., 1985). Research also indicates that youth will not only imitate their parents' use of licit drugs (e.g., coffee, cigarettes, and alcohol) but will eventually use a wider variety of drugs than their parents did (Agrawal & Lynskey, 2009; Dishion, et al., 1988; Smart & Fejer, 1972; Turiel, 1989). It follows then that young people from families where their parents used cannabis openly would be more likely to use cannabis and other illegal drugs than young people from families where parents did not use illegal drugs or kept their drug use completely hidden from their children. The children in this family were aware from a young age that their mother and their friends' mother smoked cannabis. Heather noted that she had never worried about getting into trouble for using cannabis because she knew her parents both used it. Hence, Heather was able to use cannabis openly during adolescence with little fear of reproach. Although Linda was very discreet about her cannabis use Chris had apparently accessed her supply when he was about 14 and at about the age of 11, Heather and her friend were selling cannabis to her

brother and older children at school, although they were not yet using it themselves. Hence, there was a normalisation of cannabis use in this family and the children had access to cannabis from a young age, contributing to their permissive attitude towards drug use.

During adolescence, the children also became aware that their mother had been involved in a heavier drug-using lifestyle before she had children. Her success in leaving this lifestyle behind might have seen the children develop overly optimistic views about the risks associated with polydrug use. Despite the children's limited exposure to Linda's drug use, it is likely that they perceived their mother as having a permissive attitude towards illegal drug use. Adolescents who perceive their parents to be permissive in their attitude to drugs are more likely to use drugs themselves, and it has been found that perceived attitudes are at least as important as actual parental behaviour in predicting adolescent drug use (Fawzy, et al., 1983; Hansen, et al., 1987; McDermott, 1984; Noller & Callan, 1991). When children know that their parents use drugs, it conveys the message that using drugs is an acceptable adult behaviour (Nurco, et al., 1998).

Heather suggested that her mother's drug use facilitated openness in their relationship, however, she was aware that her mother did not approve of the extent of Heather's AOD use. Heather was unwilling to heed her mother's advice about the risks of bingeing on alcohol and other drugs. To avoid upsetting her mother Heather had adopted the strategy of staying with friends when she was using, and she stopped being open with her mother about the extent of her drug use. This strategy of minimising family conflict by avoiding discussion of 'flammable' topics is useful in maintaining family peace, particularly when the child believes the topic is threatening to the parent (Noller & Callan, 1991). The downside, however, is that it reduces the level of closeness between family members (Strong, DeVault, & Cohen, 2005). Therefore, while knowledge of the mother's drug use initially facilitated openness in the mother-daughter relationship, the daughter's use of drugs eventually led to a reduction in communication. This is because although Linda modelled responsible cannabis use, she also made it very clear to her children that frequent and excessive intoxication regardless of drug type was unhealthy because it caused people to become a liability to themselves and others. Heather's choices probably allowed her to maintain the necessary balance between being close to her parents and achieving the autonomy necessary for healthy adolescent development. Despite the issue of their drug use, there was a sense that the young adults in this family enjoyed a warm and close relationship with their mother, who was a source of support for them. The validation interview with Linda

confirmed that she continued to support both of her children and did her best to help them resolve their drug problems.

When it came to drug use, Heather's non-resident father and brother modelled quite different choices than her mother and stepfather. Children in stepfamilies are usually also members of the noncustodial parent's household, which often has different rules and expectations, and when conflict occurs it is not unusual for children to play one household off against the other (Visser & Visser, 1979). While the mother-daughter relationship usually remains warm and loving after a divorce, the mother-son relationship is often negatively affected (Noller & Callan, 1991). Following a divorce, noncustodial fathers often behave more like an adult friend than a parent, failing to challenge unacceptable behaviours and attitudes displayed by their children (Ross & Davies, 2009; Simons, et al., 1994). Furthermore, adolescent males tend to respond to their mother's monitoring and discipline with anger and resistance (Baumrind, 1991 as cited in Simons, et al., 1994). Therefore, when Chris wanted more freedom to use drugs and alcohol than his mother permitted he elected to move in with his father, who was less likely to challenge his behaviour. Over time, this deteriorated into a situation in which father and son openly shared in the use of illegal drugs.

Minuchin (1981,1991) has argued that it is important to maintain firm boundaries between the parent and the child subsystems in the family. From this point of view, the shared use of illegal drugs across the parent/child subsystem marks a blurring of boundaries that tends to be associated with family dysfunction. Linda was probably intuitively aware of this boundary violation on those few occasions when she shared cannabis with her young adult children, as she felt uncomfortable and subsequently avoided this occurrence. Similarly, some of Heather's discomfort at being around her father when he was using drugs is probably a reflection of her unease at this same violation of parent/child boundaries. Although there were undoubtedly other factors involved, Heather's perceptions of control mirrored her mother's attitude, whereas Chris's loss of control possibly reflected the modelling of his father.

Although those who use other illegal drugs also tend to use marijuana, cannabis has not been found to be a causal factor nor is it the most serious predictor of problematic drug use (Joy, et al., 1999; Taylor, 2008). Although some authors imply that smoking cannabis inevitably leads to the use of other drugs (Nahas, 1990), there is insufficient evidence to support a causal relationship in which the pharmacological effects of cannabis use promote the use of other drugs (Donnelly & Hall, 1994; Taylor, 2008). As Linda emphasised, experimentation with drugs is a normative feature

of adolescent life (Newcomb & Bentler, 1988; Shedler & Block, 1990), however, from late adolescence to early adulthood, young people are particularly vulnerable to developing problematic drug use and a family history of drug misuse is the most potent predictor of this development (Magura & Laudet, 1996; Merikangas, et al., 1998a). As Heather pointed out, it had been easier for her and her brother to get away with using cannabis when they were adolescents and there was some normalisation of drug use within the family, particularly in the paternal family home. Nonetheless, a range of factors influence the likelihood that an adolescent will develop problematic patterns of drug use so a simple and direct causal relationship between the parents' use of drugs and Chris's development of problem drug use would be an oversimplification. Many of the children of nominated cannabis users in the current study showed little or no interest in using illegal drugs themselves. Although this was a family that were untouched by many of the factors (such as poverty, unemployment, lack of social support, low education, and maltreatment by parents) that are commonly associated with illegal drug use, they had nonetheless, been affected by problem drug use in the paternal family home, with its associated violence and criminal links, which was described as "spilling over" from time to time into the maternal home.

The most prominent theme in this family was related to the son's problematic drug use and discussion centred on the relationship, if any, between the use of drugs by the young people and mother's current and minimal use of cannabis and her historical polydrug use, which occurred before they were born. As established at the validation interview, Chris's drug problems seems to be primarily associated with childhood sexual abuse that occurred between the ages of six and 12, which he had been unable to tell his parents about until it came to light during drug treatment. Individuals who are most at risk of using cannabis during adolescence are often the same young people who are at risk for mental health problems, delinquency, polydrug use, and poor school outcomes even before they use cannabis (Hall, et al., 2001). The fact that Chris developed problems with cannabis use when he was still in high school and became a heavy polydrug user was probably related to the unresolved psychological and emotional trauma associated with being sexually abused as a child over a significant period of time. However, the availability, normalisation, and modelling of illegal drug use within his family certainly may have influenced his choice to use drugs as a means of attempting to cope with his past.

Family 3

Unlike Linda, the nominated cannabis user in Family 1, Anthony had never been a polydrug user but he acknowledged that before he got married he was a heavy daily cannabis user. When interviewed, Anthony used cannabis most days whereas Linda from Family 1 used only about once a week. Although Anthony was a daily (or near-daily) user, he argued that he was not cannabis-dependent. Dependence is usually characterised by an unhealthy preoccupation with using, obtaining, or recovering from the drug in question, coupled by unsuccessful attempts to cease or reduce use (Grinspoon, et al., 2005). Like many of the he nominated cannabis users interviewed for this research, Anthony did not regard himself as dependent, but nonetheless he preferred to avoid running out of cannabis and incorporated the purchase of cannabis into his day-to-day planning and weekly budgeting to ensure a regular cannabis supply and thereby avoid unpleasant but mild symptoms of sudden withdrawal, such as irritability and sleep disturbance.

In terms of the harm reduction strategies identified in Study 1, it could be seen that Anthony used a number of strategies to minimise the likelihood of harm to his family as a result of his drug use. For example, Anthony emphasised taking care of all work and other responsibilities before using and not driving when intoxicated. For her part, Tamara ensured that neither she nor her children had any knowledge or exposure to individuals that might supply cannabis to Anthony, which minimised any risk of legal consequences by not having knowledge of drug purchases or drug dealers. The central theme was around the cost and risks of obtaining cannabis and there was an emphasis on ensuring that the family were not financially disadvantaged due to stepfather's use of cannabis. Given that the children in this family were unaware of Anthony's cannabis use and his partner claimed that any behavioural signs of his cannabis intoxication were minimal, it seems safe to say that they were unlikely to have been harmed by his use. The boys' lack of problems and strong social and academic engagement speaks to good outcomes in this family, as does the parents' ongoing efforts to create a better life with Anthony undertaking an adult apprenticeship and Tamara undertaking mature age university studies.

Conclusion

Goode (1970) interviewed 200 adult recreational cannabis users and argued that they were a diverse group of people who had little in common apart from their recreational use of cannabis. Similarly, participants in the current research were a diverse social group who were well informed about the risks associated with using cannabis but made a considered decision to continue to use it. The two case studies presented for Study 2 described two families that had little in common,

apart from one parent being a cannabis user. In Family, 1 this was the mother and in Family 3, the stepfather. The parents in Family 1 were a lot older than those in Family 3, as were their children. In Family 1 the young people (aged in their 20's) knew a lot about their parent's drug use whereas in Family 3 there was no reason to believe that the boys, who were still in high school, were even aware of their stepfather's cannabis use. This put them in the minority, as 75% of the young people in the current study were aware that their parent was a cannabis user and were able to provide the interviewer with direct feedback about what growing up with a parent who used cannabis was like for them.

While there was a strong theme of problematic drug use by the son (who did not participate in the current research) in Family 1, this was not a theme that was repeated in other families. There was little indication of problematic drug use amongst the young people from the other families, even though some parents worried about binge drinking and the use of other illegal drugs, only one of the young people (the eldest at age 34) was concerned about her own use of cannabis. Nine of the children (aged between 8 and 17) had never tried cannabis and two participants (aged 15 and 16) had tried cannabis on one or two occasions only. Of those aged between 19 and 34, 6 were using cannabis regularly, and 7 young people between the ages of 18 and 25 had tried cannabis but no longer used it. When children under the age of 14 were excluded, there were 10 cannabis users amongst the remaining 18 offspring of nominated cannabis users. Although the above two studies (considered in isolation) might imply a direct relationship between parental cannabis use and the young person's use of cannabis, many of the children of cannabis users, particularly those whose parent had used quite heavily and openly, showed no interest in using cannabis themselves.

By organising the data into the form of a coherent narrative it was possible to identify how the various themes played out within different families. As portrayed in the two case studies presented above, the story of how cannabis was used and the implementation of the various harm reduction strategies looked different in each family. Although parents recognised the risks associated with cannabis use, they adopted different ways of minimising harm and the harm reduction strategies that they used were implemented with varying degrees of effectiveness. In Family 1, efforts to reduce harm were less effective and appeared to have been compromised by outside influences. In Family 3, parents made greater efforts to achieve a complete separation between their drug use and parenting, such that their children were not aware of stepfather's use of cannabis and this may have been a key factor in the positive outcomes achieved by the children

in this family to date. Alternatively, it might be that because the children in Family 3 were younger than those in Family 1, they were not yet at a stage where they had begun to experiment with drugs. It is important to acknowledge that harm reduction themes do not operate independently and regardless of parenting efforts and strategies to reduce harm within the family, there are always going to be factors operating outside the immediate family that may influence the developmental outcomes of children. Furthermore, the use of cannabis by parents represents only a small part of each family's story and many other factors operating within families also contribute to outcomes for children.

Chapter X - General Discussion

Consistent with previous research in the AOD field (Neale, et al., 2006) the qualitative method used in the current study was useful in exploring the use of cannabis by parents. The interview process allowed the researcher to establish a sense of rapport with participants that facilitated the collection of data in regard to an area of their lives that was steeped in social stigma due to the status of cannabis as an illegal drug. The dual goals of the current research were met; the benefits and harms of cannabis use, as perceived by parents who were long-term cannabis users, have been described in detail, together with the specific harm reduction strategies or behaviours that have assisted participants in minimising cannabis-related harm. Specifically, the five interview questions allowed for a saturation of data to be obtained in relation to (1) participants' lifestyles; (2) perceived benefits of cannabis use; (3) perceived harms; (4) harm reduction strategies; and (5) their management of cannabis use over the long term. In summary data from the current studies are entirely consistent with the harm reduction paradigm argued in the AOD literature, as opposed to the dominant discourse about parents who use drugs being bad parents. It was anticipated that families might provide data that did not fit within the harm reduction/family coping paradigm, however, this turned out not to be the case. This research makes a unique contribution to the literature through examination of cannabis use at the family level unit rather than the individual level.

Parents in the current research were aged between 31 and 56 years of age (mean age 44) and were drawn from a broad cross section of the community, whereas existing research has predominantly focused on younger cannabis users and those in treatment settings. Of the 13 nominated cannabis users in the current study, ten had been using cannabis for more than 20 years and three had been using cannabis for between 10 and 20 years. Hence, the current research provided input from cannabis users who were older than those typically described in the literature and who had been using cannabis throughout much of their adult lives, including during the years they were raising children. Nominated cannabis users had been using cannabis regularly for decades but argued that their lifestyle did not revolve around a preoccupation with obtaining and using cannabis to the extent where it had a detrimental impact on their social roles and obligations. Although outcomes for cannabis users and their families were not formally measured, this was evidenced in the stability of their living conditions, employment, and relationships, as well as through data obtained during interviews with partners and children. Additional support for positive outcomes was the high rate of engagement with education and employment among

young people in the current sample. The use of cannabis by parents in the current study was arguably more habitual in nature than dependent; in that it was performed automatically in response to specific stimuli (e.g., stress, end of working week, bedtime) but was not usually associated with significant drug-related problems. This finding is consistent with studies examining controlled use of other illegal drugs (Forrester, 2000; Lende, et al., 2007; Zinberg, 1984).

Research suggests that individuals often experiment with various potentially 'addictive' psychoactive drugs over the course of their lifespan but the majority do not become drug dependent (WHO, 2004). Goode (1970) described cannabis use as the product of a rational decision by large numbers of people with normal values and beliefs. He argued that, irrespective of its legal status, people make decisions about using cannabis the same way they make decisions about other everyday activities and choices. The same was true of participants in the current research who predominantly used cannabis with friends or partners during the weekends, evenings, or other leisure time. Cannabis was used for the same reasons that people use alcohol and other drugs: to improve their mood and alleviate stress, through avoiding emotional, mental, and physical discomfort, and by enhancing otherwise pleasurable or mundane experiences. In discussing the benefits of using cannabis, respondents emphasised its pleasurable effects and how quickly they could achieve a state of relaxation that helped with stress management.

Although the current sample was small, findings were similar to an examination of middle-class cannabis users by Osborne and Fogel (2008) in that respondents predominantly reported non-compulsive patterns of cannabis use that were associated with few negative consequences. Parents in the current study described a functional and controlled pattern of cannabis use, typically using a small quantity of cannabis most evenings and/or weekends. In most cases, family members confirmed that the quantity of cannabis used by parents was minimal and harmless, even when cannabis was consumed on a daily basis. Quantities of cannabis used during a session diminish with age, especially for women; hence, older cohorts of daily cannabis users tend to smoke less cannabis than daily cannabis users who are younger (Kandel & Davies, 1992). The current research suggests that measuring or describing cannabis use as "daily use" might not be meaningful as the quantities used on a daily basis can range from excessive to minimal. Parents in the current study reported that they monitored their cannabis use to ensure that their rate of consumption did not increase over time and recognised the importance of having days when they abstained from using cannabis. The ability to monitor and modify one's drug use is consistent with

findings that drug users who were not in treatment modified their drug use to avoid adverse consequences (Williamson, et al., 1997) and that even high-dose frequent cannabis users who decided to reduce or cease their intake were able to do so with a minimum of difficulty (Kandel & Davies, 1992).

Participants in the current study used cannabis as an alternative to alcohol, which is in line with suggestions made in 2008 by the EMCDDA that cannabis might “become a functional equivalent of alcohol” (Sznitman, et al., 2008). Individuals in the current study frequently justified their use of cannabis by placing it on a par with alcohol, which is used by over 80% of Australians (AIHW, 2011a). Medicinal benefits of cannabis, especially in the management of pain and insomnia, contributed to the ongoing use of cannabis by some nominated cannabis users. Consistent with other research, this points to the fact that some individuals who come into contact with cannabis as a recreational drug become aware of its potential to alleviate particular symptoms, such as chronic pain or low mood, which reinforces their ongoing use of cannabis (Swift, et al., 2005). This is particularly true of individuals who are dissatisfied with conventional medical approaches and pharmacological treatments and such views were often posited by participants, who also held strong views about cannabis being less harmful than alcohol and other illegal drugs.

Nominated cannabis users were aware that using cannabis could lead to harmful outcomes, particularly when patterns of cannabis use were dependent, excessive, or hazardous (i.e., ingesting THC or using bucket bongs). They were aware that using cannabis could damage an individual’s health and create social, legal, and other problems. Nonetheless, they argued that they were able to titrate their dosage and manage their use in a way that minimised such risks. Participants specifically identified health risks relating to smoking and passive smoking, particularly by children. They recognised that using cannabis could induce or worsen mental health problems, particularly depression and anxiety, emphasising that individuals prone to psychotic illness, for example, should abstain from cannabis use. Parents who used cannabis reported that it could reduce their motivation to complete daily household tasks and sometimes contributed to social withdrawal. Participants were aware that cannabis intoxication was detrimental to their cognitive processes, making them less articulate, and affecting their short-term memory and attention. Participants were also aware that excessive use of cannabis could contribute to a failure to effectively problem-solve daily problems and could hinder progress toward important goals, such as completing high school or university. Furthermore, the desire to use cannabis sometimes led to

poor financial decisions. Nominated cannabis users did not condone excessive use of cannabis and recognised that dependent patterns of use, as well as frequent cannabis intoxication, could lead to harmful outcomes for individuals and their children.

Rather than laws and policies, it has been suggested that experienced cannabis users adhere to a subset of social norms and etiquette about the appropriateness of using cannabis in a given context and that by abiding by such rules, users are able to regulate their cannabis use and minimise adverse social consequences (Reinarman, et al., 2004). For example, participants in the current research were aware that cannabis use was detrimental to their cognitive processes, particularly their short-term memory and attention, so they tended to avoid using cannabis when they had to engage in important or work-related activities. Limiting one's cannabis use to socially appropriate times and quantities might be regarded as a harm reduction strategy and further ways to reduce harm were extracted from the current data. Behaviours identified as harm reduction strategies were based on an understanding of the risk and protective factors associated with drug use as informed by the current literature review and were not necessarily thought of as "harm reduction strategies" by those being interviewed for the research. Harm was often reduced through the application of common sense, such as the need to prioritise responsibilities associated with employment and parenting of children over any drug use. Through consideration of the potential impact of cannabis use on cognitive processes, mood and mental health, finances, and parenting, as well as issues related to its legal and social status, smoking as the main method of consumption, and mixing cannabis with other drugs, such as alcohol and tobacco, there was potential to minimise harm across any of these domains.

Validity

Traditional notions of *reliability* and *validity* are unsuitable for evaluating exploratory case studies (Yin, 1994) and interpretive research conducted within a constructivist paradigm (Silverman, 2001). Various suggestions for how to evaluate such research have been presented (Miles & Huberman, 1994; Olesen, 2003; Patton, 1999, 2002; Silverman, 2001; Smith, 1995) but no single approach has been widely adopted. In discussing case study research, Yin (1994, p. 123) suggested four analytic strategies that "*appear to underlie all good social science.*" Hence it was decided to apply these strategies to the current research. Firstly, Yin emphasised that the analysis should rely on "*all the relevant evidence.*" In presenting the findings from Study 1 emphasis was placed on including quotes from every participant so as to present as balanced and broad a range of data as possible. This was done to ensure that data from each participating family and

individual contributed to the cross-case conclusions. Furthermore, although only two of the families were presented in-depth for Study 2, the data from every family member was brought together by topic for every family that participated and the researcher was immersed in that data through a reiterative process of analysis and reporting. Hence, an in-depth examination of each family and a psychological formulation about the role and possible harms of cannabis use was developed for all 11 of the families in which within-family data was available. Furthermore, continuing to recruit families to the point of saturation in terms of emerging themes, as well as the extensive literature review presented, adds weight to the notion of “all” of the relevant evidence having been relied upon for the current thesis.

Yin’s second strategy was to include “*all major rival interpretations*”. The in-depth case study approach allowed for close examination of all cases including those where outcomes were less than desirable, such as in Family 1, thereby including evidence that both supports and challenges the data. The two case studies presented in Study 2 were intended to provide enough depth and detail for the reader to be able to form their own independent views about whether the researcher’s interpretations are valid and meaningful. Throughout presentation of the findings, the researcher has wherever possible offered alternative explanations for the data. Furthermore, a parent’s claim of “little or no harm” was carefully evaluated against other within-family data and themes such as “harm overlooked” should contribute to the overall validity by demonstrating that rather than taking such statements at face value, the researcher took a more objective look at the truth value of such statements, by considering data from their children and non-using partners, as well as general outcomes within families (e.g., university attendance) and my clinical observations (e.g., warm parent-child interactions) during visits to the home for interview purposes. Validity of current findings was enhanced by having independent data on the same topic from each family member’s point of view and by including both convergent data, as well as divergent data.

Thirdly, Yin (1994, p. 123) suggested that the analysis should “*address the most significant aspect of your case study*”, stating that “*you will have demonstrated your best analytic skills if the analysis is on the biggest target.*” The “*target*” or goal of the current research was to describe the benefits and harms of cannabis use, as perceived by parents who were long-term cannabis users, together with the specific harm reduction strategies or behaviours that might have assisted participants in minimising cannabis-related harm. The multiple family case study approach that was adopted allowed for a saturation of data to be obtained in relation to these topics, indicating that the goal was achieved.

Finally, Yin (1994, p. 123) stated that you should bring your own “*prior, expert knowledge*” to your case study topic. He argued that,

Preferably the researcher will have analysed similar issues in the past and be aware of current thinking and debates about the case study topic. If you know your subject matter as a result of previous investigations and publications so much the better.

The current research project was undertaken part-time over a period of six years during which time I was employed in the role of a clinical psychologist (registrar) in the Department for Child Protection and Family Support, prior to which I worked in the drug and alcohol field and before that in the welfare sector. Hence, the researcher has extensive experience working with marginalised populations, especially families affected by drug misuse, domestic violence, and entrenched social problems. In my child welfare role, I am frequently involved in providing psychological assessments of parental capacity and have given expert witness testimony on this topic in the Children’s Court of WA. Hence, my clinical experience in working with families where children have been harmed by their parents’ drug use and other problematic behaviours has contributed to my interpretation and understanding of the families interviewed for this research. Furthermore, reflexive accounts of my ideology and values were provided in Chapter IV under the heading of Researcher Assumptions, to further provide the reader with some indication of the lens through which the data has been interpreted.

In addition to the above, further evidence for validity was obtained through the process of respondent validation. Validation/feedback interviews took place with four of the nominated cannabis users, including those from the cases presented in-depth in Study 2. Participants were provided with summaries of the findings and provided the researcher with feedback supporting the interpretations as presented. The participants who provided feedback about the current research reported the findings to be consistent with their own experience. Taken together, the above factors argue for the validity of the current research findings.

Limitations of the Current Study.

The focus was specifically on understanding the role and management of cannabis in the lives of parents who were long-term cannabis users and the current findings are not intended to be representative of the larger body of cannabis users. For example, participants were all Caucasian and the use of cannabis by Indigenous Australians or people from other cultures might look different or raise different issues. Furthermore, participants were self-referred, which may have introduced a selection bias into the sample. As polydrug use was an exclusion factor for this

research, nominated cannabis users in the current study reported minimal use of other drugs whereas polydrug use is reported to be common among cannabis users. The current sample might not be representative of “typical” cannabis users but for most people, cannabis is a *terminus* drug (rather than a gateway drug) because most cannabis users do not use other illegal drugs (Zimmer & Morgan, 1997).

These were an older cohort of cannabis users than typically described in the literature and they were selected on the basis that they identified as cannabis users rather than as polydrug users. As the current research used radio and print media to recruit about half of all participant families in the current research, the sample might be biased toward those who have greater access to these media (local newspapers and AM radio). Furthermore, the interviews and articles on the media indicated that the researcher was seeking families in which there had been long-term and well-managed cannabis use, so those who chose to contact the researcher might belong to a smaller subset of cannabis users who are not typical of the wider population. This reflects purposive sampling in which families were selected for study on the basis that their cannabis use was well managed and they were, therefore, in a position to provide meaningful data relevant to the research questions about ways to reduce harm.

Questionnaires that specifically examine adverse drug effects may be selectively answered by those who enjoy the effects of cannabis and have positive attitudes about its use (Greenberg, et al., 1976). Like the cannabis users interviewed by Osborne and Fogel (2008) those in the current study appeared to enjoy the interview process; many provided feedback that it was beneficial to have the opportunity to reflect on their cannabis use and the impact it had on their daily lives. Also, like in Osborne and Fogel, participants sometimes hoped that the research would contribute to a more balanced social policy in respect of cannabis use. The current research was explicitly aimed at cannabis users who had well-managed cannabis use and who were therefore more likely to be healthy and to have fewer adverse reactions to their cannabis use. Nominated cannabis users were predominantly current users, hence, their views might be biased toward minimising the problems and exaggerating the benefits, to justify their ongoing drug use (Thomas, 1996). Nonetheless, findings of few cannabis-related problems amongst the current participants is consistent with findings of minor clinical differences between cannabis users and nonusers, and a trend toward greater psychopathology in individuals with a history of heavy sustained cannabis use (Greenberg, et al., 1976).

Implications of the current findings

The current study, based on a small sample of families, points to ways of reducing harm that have implications for clinical and forensic practice, particularly at the family level. The harm reduction approach can be useful and fits with what families tell us of their experience. Cannabis users in the current study were not typical of drug users described in the literature; they had 'normal' lives with stable homes, high rates of employment, and minimal involvement with the law. In terms of Thorley's (1980) model of drug-related harm, they used regularly but not to the point where they experienced associated health, social, or legal problems. Their drug use was regular and long-term, and could arguably be defined as chronic. However, most nominated cannabis users and other family members reported the ability to maintain a stable and controlled pattern of use over time, rather than a dependent pattern of use as typically described in the AOD literature. This suggests that one perhaps needs to consider other important aspects of an individual's social context when making statements or predictions about their capacity to manage their drug use in a controlled and moderated way over the long term. This is a question that often arises when psychologists are assessing parental drug use for purposes related to the welfare of a child. In studies of cannabis users, daily or near-daily cannabis use constitutes the highest level of drug involvement measured and daily cannabis use is associated with the highest potential for negative consequences (Kandel & Davies, 1992). The current study indicates that although an individual might be using cannabis regularly or even on a daily basis, this does not necessarily constitute excessive, harmful or problematic use. Users claimed that they modified their dosage to minimise the psychoactive effects and consciously chose not to become immersed in a lifestyle that has, as its central feature, a preoccupation with obtaining and using drugs.

Higher rates of regular cannabis use are found amongst subsets of Australians, including indigenous populations, people diagnosed with mental health problems, and young people (Copeland, et al., 2009; Delahunty & Putt, 2006). Use within these populations is common and points to the need to better understand the consequences of cannabis use within these populations. Family, twin, and adoption studies indicate that drug dependence is highly heritable, increasing the risk of drug use and dependence in those with drug dependent family members by up to eight times (WHO, 2004). Hence, child welfare authorities are often involved with families whose drug-related problems are intergenerational and entrenched. Although the risk of developing dependent drug use is greater in some families than others, environmental factors, such as social acceptance and availability of drugs within the community, will determine which

specific drugs the individual will be exposed to, and risk and protective factors will increase or decrease the likelihood of problematic patterns of use developing. As cannabis is widely available and socially acceptable within some Australian communities, it will continue to be a drug of choice for young people, particularly those who are at risk due to heritability, comorbidity, and compounded environmental risk factors, especially those within the family.

In assessing the use of illegal drugs by a parent, it is important to consider whether they are able to provide a safe and supportive environment for their children rather than to focus purely on whether or not they are using drugs (Velleman, 2009). Furthermore, it is important that interventions are tailored to individual family circumstances and address the family unit rather than the individual drug user. Interventions should ideally address issues related to poverty, which is often a critical factor in ongoing problem drug use. In any case, it is important to realise that the medical, social, and occupational problems associated with drug dependence are most unlikely to disappear simply because an individual undergoes detoxification (O'Brien and McLellan, 1996). Interventions at the family level hold the promise of providing multiple benefits, rather than just drug prevention (Spooner, et al., 2001).

Health professionals often have a negative view of parents who use illegal drugs, viewing them as irresponsible, neglectful, and intolerant parents who are not child-focused and put their drug use before the needs of their children (Klee, 1998). Research suggests that professional biases and value judgements unfairly distort assessments about parental drug use and indicates that social workers under-respond to alcohol misuse as compared with drug misuse (Forrester, 2000). Phillips (2004) has emphasised the importance of examining the “extent” of parental drug use and the specific “impact” that it has on their children, depending on their ages and development. Findings from the current study emphasised this point. It is important that decisions about children’s wellbeing and living arrangements are informed by evidence-based practice as there is always the risk that social workers’ (or other health professionals’) personal views about drug use will affect the relationship they develop with parents that use illegal drugs. This might have significant impact for a parent who is navigating the child welfare system, hence, it is important that assessments completed by psychologists for forensic purposes take into account the overall effect of any drug use and other factors that might significantly impact on a parent’s ability to provide a safe healthy environment for their children. The harm reduction strategies identified in this research might provide a useful framework for exploring cannabis or other drug use within families and may also point to specific areas in which intervention can occur.

For example, a behavioural approach that targets specific harm reduction strategies and identifies realistic goals, such as the parent not driving under the influence or making sure that children don't enter the homes of associates who are selling illegal drugs.

By relying on urine testing (i.e., the presence or absence of a drug) rather than a more comprehensive assessment of family relationships, strengths, and risk factors, the net widens to include parents whose recreational use of cannabis poses no risk to their children (Palmer, 2008). In December 2008, the Supreme Court of NSW (see *Re Georgia and Luke (No 2)* [2008] NSWSC) overturned a decision of the Children's Court, ordering that two children immediately be returned to their parents, despite their parents' refusal to provide urinalyses and their admission of recreational cannabis use. The question posed by this case was whether any use of cannabis by a parent would render them unfit to care for a child. The Court ruled that:

There is evidence of some recreational cannabis use ... but there is no evidence that the parents have an addiction to cannabis or are unable to care for themselves and their children because of over-use of cannabis. There is no evidence that the parents have abused other drugs, legal or illegal. ... What has happened in this case suggests that the particular DOCS officers took the view that they were entitled to require, as a condition of a Care Plan, that the parents refrain from any use whatsoever of cannabis, despite the fact that there was no evidence that their cannabis use in itself posed any direct risk of harm to the children. I repeat – if this is a view prevalent in the Department, it is important for the public to know about it.

(Palmer, 2008), Re Georgia and Luke (No 2) [2008] NSWSC

Future Research

The widespread use of cannabis, together with its high potential for problematic use, points to the importance of continued research to understand the risk and protective factors that influence the development of problematic drug use patterns. It is clear that some individuals are at greater genetic risk of being unable to control their drug use and that environmental variables can mediate and moderate the behavioural expression of such risk (WHO, 2004). Harms and risk need to be clearly understood in the context of the family rather than trying to understand the individual in isolation from his social context (Horgan, 2011; Repetti, et al., 2002; Velleman, 2009). The current findings point to the need for future research aimed at understanding the family within their social context, rather than the more narrow traditional focus on the individual drug user. Such research will contribute to a greater likelihood of developing appropriate and useful interventions and support for vulnerable individuals and their families. To better understand outcomes for children when parents use drugs, it will be important to identify clearly operationalised parenting variables and discrete measures of outcome (Mayes & Sean, 2002). The

current research suggests that there is much to be learned from a broader spectrum of users, including those who used and developed control, rather than just extreme cases available in treatment settings.

The use of cannabis during pregnancy is more prevalent than the use of other illegal drugs and women in the current study frequently reported using cannabis during pregnancy to reduce the nausea and poor appetite associated with 'morning sickness.' Although most women report a reduction in their use of cannabis during pregnancy (Fried, et al., 1980; Goldschmidt, et al., 2000; Tennes, et al., 1985) heavy users are more likely to maintain high levels of use throughout pregnancy and to return to pre-pregnancy levels of cannabis use within a year following birth (Day & Richardson, 1991; Fried, et al., 1985). Hence, the use of cannabis during pregnancy by women in the current study might be related to their overall level of use at the time they fell pregnant more than 12 years ago, as participating parents were long-term regular cannabis users who viewed cannabis as a relatively benign substance at the time of pregnancy. As with tobacco, smoking cannabis has the potential to affect the foetus through the effects of reduced oxygen and increased carbon monoxide levels in the mother's bloodstream, as well as through direct effects on the developing brain (Dreher, et al., 1994; Young, 1997).

Evidence for poor outcomes in neonates exposed to cannabis is mixed and direct effects and teratogenicity have not yet been reliably substantiated in the literature (Fried, 1991; Young, 1997). Nonetheless, initial longitudinal studies have indicated that prenatal exposure to heavy cannabis use might produce subtle effects on cognitive functioning that are not apparent until children are older and when complex behaviour is examined at a more specific, rather than global level (Fried, 1996). Fried and his colleagues have suggested that children exposed prenatally to cannabis might have deficits in prefrontal lobe functioning, specifically in terms of visual analysis, visual hypothesis testing, and impulse control (Fried, 2002). Fried's research suggests the possibility that in-utero exposure to cannabis might be linked to deficits in executive functioning, specifically attention and visual analysis/hypothesis testing (Fried, 2002; Fried & Smith, 2001; Fried, et al., 1998). Given that areas of the forebrain contain major receptor sites for cannabinoids, and the forebrain is associated with executive functioning, the possibility that gestational cannabis use affects higher order functioning warrants additional research, particularly in the context of high rates of ADHD and high rates of cannabis use amongst women of childbearing age. It will be important that such studies take into account a wide range of variables, including parenting style

and levels of supervision, as well as assessment of parental attentional deficits and personality traits.

When examining the use of drugs in the parenting context it is important to understand the overall picture, including the parents' personality and the motives for their use, which can either moderate or contribute to the likelihood of the development of problematic patterns of drug use (Glynn, et al., 1983; Kuntsche, et al., 2006; Theakston, et al., 2004). Some personality variables can moderate the impact of drug use on parental affection and involvement, child-centeredness, and the parent-child relationship (Brook, et al., 1995). Further research linking personality traits to specific outcomes for children is required. Research that involves larger community-based matched samples would assist in understanding the role of motives and personality factors in long-term cannabis use and might usefully inform intervention, assessment, and prevention strategies (Kuntsche, et al., 2006; Lee, et al., 2007; Miller & Rollnick, 2002; Simons, et al., 2000).

Many of the cannabis-related harms related primarily to smoking as the preferred method of administration as baked cannabis was quite a different experience. Medical research suggests that the use of a vaporiser is promising in this regard as it facilitates quick bioavailability whilst significantly reducing the negative effects associated with smoking by allowing individuals to self-regulate their dosage by ceasing inhalation at a point when they have obtained the desired results but before psychoactive effects become unpleasant (Taylor, 2008). Participants in the current study did not make mention of this method of administration but preferred to rely on the use of bongs, pipes, and joints. The current study involved long-term cannabis users and to date the chronic health effects of having used cannabis for 20 or 30 years is not yet known. An examination of the physical and mental health of older cohorts of long-term cannabis users who are not otherwise polydrug users, might be valuable in terms of understanding the long-term health effects of smoking cannabis.

Conclusion

By adopting a family case study methodology, the present research contributed to the understanding of how drug use impacts on parenting and children's development by examining the use of cannabis in 13 West Australian families. Study 1 yielded a detailed analysis of themes related to cannabis use within families and efforts to reduce harm, whereas Study 2 provided examples of how these themes played out within certain families and the effectiveness of the specific harm reduction approach adopted within those families. The current research points to

specific ways of reducing harm, such as being discreet about cannabis use; using less potent strains; prioritising family and work responsibilities; being careful about where cannabis is obtained; not mixing cannabis with tobacco; and limiting any financial outlay. The harm reduction strategies identified in this research might provide (1) a useful framework for the forensic evaluation of cannabis use by parents (e.g., in Family Court or child welfare litigation) and (2) guidance for specific areas of clinical intervention. For example, a behavioural approach might target specific harm reduction strategies to identify realistic therapeutic goals, such as the parent not driving under the influence or making sure that children do not accompany a parent who is purchasing drugs.

The use of drugs by parents is dynamic and changes over time, hence the effectiveness of harm reduction strategies also depends on a range of factors, such as the children's ages, how successfully and consistently strategies are used and other factors operating within families. Developmental outcomes are not determined by whether the parent is using and what harm reduction strategies are adopted but are also be influenced by a range of factors, including general parenting competence, parenting style, and the nature and quality of parents' relationships with their children, as well as influences operating outside of the immediate family. In the current research, data from different family members indicated that that parenting had generally been "good enough" despite parental use of cannabis. Parents and children had healthy relationships and family members did not describe any major adverse consequences related to the parent's use of cannabis. Perhaps most significantly, parents prioritised their children's social, emotional, educational, and other needs over their desire to use cannabis. Children and young people in the current study were positively and actively engaged with their families, their pursuit of education, and their communities. For nominated cannabis users in the current study, their use of cannabis served as an alternative to the recreational use of alcohol and was just one aspect of what might be construed as a fairly balanced life, revolving around work, family, and leisure.

Many people experience cannabis as pleasurable and unproblematic (Bennett, 2008) and the perceived benefits of time-out and relaxation are powerful motivators for ongoing use (Swift, et al., 2000). Furthermore, users have argued that cannabis creates fewer problems for them than other drugs or alcohol (Swift, Hall, & Copeland, 1997). Therefore, there is a critical need for research to support the provision of accurate and empirically based information about reducing cannabis-related harm (Swift, et al., 2000). Drug users generally described in the literature tend to be those whose drug use and associated lifestyle is characterised by high rates of poverty,

criminality, and social isolation (Mayes & Sean, 2002). The current study suggests that some individuals who use drugs might not have much in common with such drug users. Findings from the current study suggest that in the examination of parental cannabis use, the emphasis should be on *patterns of use* within the context of the user's broader lifestyle rather than on the presence or absence of parental cannabis use. The distinction between *patterns of use* and *drug use per se* was emphasised by participants in the current study and is consistent with views by the World Health Organisation (WHO) in their 2004 report *Neuroscience of psychoactive substance use and dependence*.

The current study emphasised that exposure to cannabis often begins in the family home, where children are likely to take their cue from older family members such as parents or siblings. Hence, intervention at the family level would seem prudent and this research was an attempt at understanding some of the ways that parental cannabis use impacts on the drug-taking attitudes and behaviours of younger family members. Those who have a greater genetic predisposition toward problem drug use are also more likely to be exposed to environmental risk factors, such as poor parenting, parental mental health problems, and poverty (Horgan, 2011; Repetti, et al., 2002), hence, a cycle of cumulative risk occurs that contributes to intergenerational problems, such as problem drug use. In order to break such cycles consideration needs to be given to the social context of use (Repetti, et al., 2002) especially the examination of drug use within families (Horgan, 2011). The determinants of illegal drug use are multiple, interactive, and complex and the effects of broader social and economic factors make it difficult to identify the specific contribution of parental drug use (Dawe, et al., 2006).

Children's wellbeing is a predictor of their future harmful drug use, criminality, and health problems, and a growing body of knowledge about factors that create risk or support children's wellbeing, points to the need for greater social cohesion (National Drug Strategy, 2001b). The finding that social exclusion can be a cause and an effect of poor health is of particular relevance in the area of illegal drug use, where a user's drug-related behaviours often isolate them from mainstream society and make them especially vulnerable to seeking ongoing comfort in drugs (National Drug Strategy, 2001b). The stigma associated with maternal drug use produces further isolation, cultural denigration, and feelings of shame (Inciardi, et al., 1997). Evidence points to the need for policies that recognise the influence of poverty, housing, education, employment prospects, and supportive environments for early parenting (Gossop, 2007; Marmot, 1999; National Drug Strategy, 2001a, 2001b; Repetti, et al., 2002). Policies designed to minimise the

effects of economic stress, coupled with 'user friendly' early intervention programs that promote social inclusion and family attachment, are key factors with the capacity to minimise any harmful consequences of illegal drug use.

Horgan (2011) argued that it is not appropriate to extrapolate from the findings on children of alcoholics to children of drug users because of differences in the sociocultural context in which each drug is used. She stated that opioid users were more likely to live in poverty with increased criminal involvement and more secrecy and stigma surrounding their drug use. The current research indicates that despite heroin and cannabis both being illegal drugs, there are often huge differences in the sociocultural context of their use, with cannabis users perhaps being more similar to alcohol users than to users of other illegal drugs. For example, cannabis users in the current study were less criminally involved, more socially integrated, and had higher educational levels and SES than most opioid users described in the literature. This might be a function of recruiting the sample from the community rather than from a setting for people with drug-related problems or it might be that there are less adverse implications for children of cannabis users than there are for children whose parents use opioids or other forms of illegal drugs. Nonetheless, the current research has added to knowledge in this area and opened up relevant lines for further research in this important topic.

The nature of drug use and the reluctance to be identified as a drug user means that very little is known about those drug users who do not seek treatment (Marsh & Loxley, 1994). Not all parents who use illegal drugs are drug dependent, and it is important to note that the majority of children who grow up in drug-using families will not experience significant long-term developmental or emotional sequelae (Young, 1997). The needs of parents who use drugs vary according to their individual circumstances, however, like other parents they are likely to be more effective as parents when stress is low and support is available (Hogan & Higgins, 2001). Drug use is a socially normative experience, hence, harm reduction approaches are likely to be more viable than approaches aimed at prevention and abstinence (Spooner, et al., 2001). The current study identified 19 harm reduction strategies that may prove useful in the assessment and intervention of cannabis-using parents.

References

- Abel, B. (1980). Prenatal exposure to cannabis: a critical review of effects on growth, development, and behavior. *Behavioral and Neural Biology*, 29, 137-156.
- Achenbach, T. M. (1991a). *Manual for the Child Behavior Checklist 4-18 and 1991 profile*: University of Vermont Department of Psychiatry.
- Achenbach, T. M. (1991b). *Manual for the Teacher's Report Form and 1991 profile*: University of Vermont Department of Psychiatry.
- Adams, I. B., & Martin, B. R. (1996). Cannabis: pharmacology and toxicology in animals and humans. *Addiction*, 91, 1585-1614.
- Advisory Council on the Misuse of Drugs. (2003). Hidden harm. Responding to the needs of children of problem drug users Retrieved 29 January, 2007, from www.drugs.gov.uk
- Agnosti, V., & Levin, F. (2004). Predictors of treatment contact among individuals with cannabis dependence. *The American Journal of Drug & Alcohol Abuse*, 30, 121-127.
- Agrawal, A., Jacobson, K. C., Prescott, C. A., & Kendler, K. S. (2004). A twin study of personality and illicit drug use and abuse/dependence. *Twin Research*, 7, 72-81.
- Agrawal, A., & Lynskey, M. T. (2009). Candidate genes for cannabis use disorders: findings, challenges and directions. *Addiction*, 104, 518-532.
- Agrawal, A., Lynskey, M. T., Madden, P. A. F., Pergadia, M. L., Bucholz, K. K., & Heath, A. C. (2008). Simultaneous cannabis and tobacco use and cannabis-related outcomes in young women. *Drug and Alcohol Dependence*, 101, 8-12.
- Agurell, S., Halldin, M., Lindgren, J. E., Ohlsson, A., Widman, M., Gillespie, H., et al. (1986). Pharmacokinetics and metabolism of delta-1-tetrahydrocannabinol and other cannabinoids with emphasis on man. *Pharmacological Reviews*, 38, 21-43.
- Ainsworth, M. D., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. New Jersey: Erlbaum.
- Akre, C., Michaud, P., Berchtold, A., & Suris, J. (2010). Cannabis and tobacco use: where are the boundaries? A qualitative study on cannabis consumption modes among adolescents. *Health Education Research*, 25, 74-82.
- Allen, R. P., Safer, D., & Covi, L. (1975). Effects of psychostimulants on aggression. *Journal of Nervous and Mental Disease*, 160, 138-145.
- American Psychiatric Association [APA]. (2013). *Diagnostic and statistical manual of mental disorders*. (5th ed.). Washington, DC: Author.
- Amos, A., Wilshire, S., Bostock, Y., Haw, S., & McNeill, A. (2004). 'You can't go without a fag ... you need it for your hash' - A qualitative exploration of smoking, cannabis and young people. *Addiction*, 99, 77-81.
- Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C., Perry, B., et al. (2006). The enduring effects of abuse and related adverse experiences in childhood. A convergence of evidence from neurobiology and epidemiology. *European Archives of Psychiatry and Clinical Neuroscience*, 266, 174-186.
- Anderson, A. R., & Henry, C. S. (1994). Family system characteristics and parental behaviors as predictors of adolescent substance use. *Adolescence*, 29, 405-420.

- Andreasson, S., & Allebeck, P. (1990). Cannabis and mortality among young men: a longitudinal study of Swedish conscripts. *Scandinavian Journal of Social Medicine*, 18, 9-15.
- Andrews, J. A., Hops, H., & Duncan, S. C. (1997). Adolescent modeling of parent substance use: The moderating effect of the relationship with the parent. *Journal of Family Psychology*, 11, 259-270.
- Anthony, J. C., & Helzer, J. E. (1991). Syndromes of drug abuse and dependence. In L. N. Robins & D. A. Regier (Eds.), *Psychiatric disorders in America*. New York: The Free Press.
- Anthony, J. C., Warner, L. A., & Kessler, R. C. (1994). Comparative epidemiology of dependence on tobacco, alcohol, controlled substances and inhalants: basic findings from the national comorbidity survey *Experimental and Clinical Psychopharmacology*, 2, 244-268.
- Arcuri, A., Copeland, J., & Howard, J. (2008). Clinical profiles of cannabis-dependent adolescents in residential substance use treatment. *NCPIC Bulletin*, 2. Retrieved from <http://ncpic.org.au/ncpic/media/bulletins>
- Arendt, R., Singer, L., Angelopoulos, J., Bass-Busdiecker, O., & Mascia, J. M. (1998). Sensorimotor development in cocaine-exposed infants. *Infant Behavior and Development*, 21, 627-640.
- Arendt, R. E., Short, E. J., Singer, L. T., Minnes, S., Hewitt, J., Flynn, S., et al. (2004). Children prenatally exposed to cocaine: developmental outcomes and environmental risks at seven years of age. *Journal of Developmental & Behavioral Pediatrics* 25, 83-90.
- Arsenault, L., Cannon, M., Witton, J., & Murray, R. M. (2004). Causal associations between cannabis and psychosis: examination of the evidence. *British Journal of Psychiatry*, 184, 110-117.
- Arseneault, L., Cannon, M., Poulton, R., Murray, R., Caspi, A., & Moffitt, T. E. (2002). Cannabis use in adolescence and risk for adult psychosis: longitudinal prospective study. *British Medical Journal*, 325, 1212-1213.
- Asbridge, M., Hayden, J. A., & Cartwright, J. L. (2012). Acute cannabis consumption and motor vehicle collision risk: systematic review of observational studies and meta-analysis. *British Medical Journal*, 344, e536.
- Ashton, C. H., Moore, P. B., Gallagher, P., & Young, A. H. (2005). Cannabinoids in bipolar affective disorder: a review and discussion of their therapeutic potential. *Journal of Psychopharmacology*, 19, 293-300.
- Asnis, S. F., & Smith, R. C. (1978). Amphetamine abuse and violence. *Journal of Psychedelic Drugs*, 10, 371-377.
- Associated Press. (2008). Study: marijuana potency increases in 2007 Retrieved 3 September, 2012, from http://www.usatoday.com/news/health/2008-06-12-2186967905_x.htm
- Astolfi, H., Leonard, L., & Morris, D. (1998). Cannabis dependence and treatment. *GP Drug & Alcohol Supplement No. 10*.
- Australian Crime Commission [ACC]. (2003). Australian Illicit Drug Report 2001-02 Retrieved 23 January, 2006, from http://www.crimecommission.gov.au/html/pg_publications.html
- Australian Institute of Health and Welfare [AIHW]. (1998). 1998 National Drug Strategy Household Survey: First results Retrieved 14 January, 2009, from <http://www.aihw.gov.au/publications/index.cfm/title/5182>

- Australian Institute of Health and Welfare [AIHW]. (2005). 2004 National Drug Strategy Household Survey: Detailed Findings. *Drug Statistics Series No. 16* Retrieved 14 January, 2009, from www.aihw.gov.au/publications/index.cfm/title/10190
- Australian Institute of Health and Welfare [AIHW]. (2006). Alcohol and other drug treatment services in Australia 2004-05. Report on the National Minimum Data Set. *Drug Treatment Series Number 5*. Retrieved 14 January, 2009, from <http://www.aihw.gov.au/publications/hse/aodts04-05/aodts04-05.pdf>
- Australian Institute of Health and Welfare [AIHW]. (2008). 2007 National Drug Strategy Household Survey. Detailed Findings. *Drugs Statistics Series No. 22* Retrieved 3 August, 2009, from <http://www.aihw.gov.au/publications/phe/ndshs07-df/ndshs07-df.pdf>
- Australian Institute of Health and Welfare [AIHW]. (2011a). 2010 National Drug Strategy Household Survey report. *Drug statistics series no. 25*. Canberra: AIHW.
- Australian Institute of Health and Welfare [AIHW]. (2011b). Alcohol and other drug treatment services in Australia 2009–2010: report on the National Minimum Data Set. . *Drug treatment series no. 14*, from <http://www.aihw.gov.au/WorkArea/DownloadAsset.aspx?id=10737420448>
- Avenevoli, S., & Merikangas, K. R. (2003). Familial influences on adolescent smoking. *Addiction, 98*, 1-20.
- Bahr, S. J., Hoffman, J. P., & Yang, X. (2005). Parental and peer influences on the risk of adolescent drug use. *Journal of Primary Prevention, 26*, 529-551.
- Baicy, K., & London, E. D. (2007). Corticolimbic dysregulation and chronic methamphetamine abuse. *Addiction, 102*, 5-15.
- Baker, A., & Dawe, S. (2005). Amphetamine use and co-occurring psychological problems: review of the literature and implications for treatment. *Australian Psychologist, 40*, 88-95.
- Bancroft, A., Wilson, S., Cunningham-Burley, S., Backett-Milburn, K., & Masters, H. (2004). Parental drug and alcohol misuse. Resilience and transition among young people. Retrieved from <http://www.jrf.org.uk/sites/files/jrf/1859352499.pdf>
- Barnard, M., & Barlow, J. (2003). Discovering parental drug dependence: silence and disclosure. *Children and Society, 17*, 45-56.
- Barnard, M., & McKeganey, N. (2004). The impact of parental problem drug use on children: what is the problem and what can be done to help? [review]. *Addiction, 99*, 552-559.
- Barnwell, S. S., Earleywine, M., & Gordis, E. B. (2005). Alcohol consumption moderates the link between cannabis use and cannabis dependence in an internet survey. *Psychology of Addictive Behaviors, 19*, 212-216.
- Barros, M. C., Guinsburg, R., Peres, C., Mitsuihiro, S., Chalem, E., & Laranjeira, R. R. (2006). Exposure to marijuana during pregnancy alters neurobehavior in the early neonatal period. *Journal of Pediatrics, 149*, 781-787.
- Bass, C. E., & Martin, B. R. (2000). Time course for the induction and maintenance of tolerance to "Δ9-tetrahydrocannabinol in mice. *Drug and Alcohol Dependence, 60*, 113-119.
- Bauman, P. S., & Dougherty, F. E. (1983). Drug-addicted mothers' parenting and their children's development. *International Journal of the Addictions, 18*, 291-302.
- Bauman, P. S., & Levine, S. A. (1986). The development of children of drug addicts. *International Journal of the Addictions, 21*, 849-863.

- Baumrind, D. (1989). Rearing competent children. In W. Damon (Ed.), *Child development today and tomorrow* (pp. 349-378). California: Jossey-Bass.
- Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance use. *Journal of Early Adolescence*, 11, 56-95.
- Bays, J. (1990). Substance abuse and child abuse: Impact of addiction on the child. *Pediatric Clinics of North America*, 37, 881-904.
- Beardslee, W. R., Versage, E. M., & Gladstone, T. R. G. (1998). Children of affectively ill parents: a review of the past 10 years. [review]. *American Academy of Child and Adolescent Psychiatry*, 37, 1134-1141.
- Beardsley, P., & Kelly, T. (1999). Acute effects of cannabis on human behavior and central nervous system functions. In H. Kalant, W. Corrigal, W. Hall & R. Smart (Eds.), *The health effects of cannabis*. Toronto: Addiction Research Foundation.
- Becker, H. S. (1953). Becoming a marijuana user. *The American Journal of Sociology*, 59, 235-242.
- Beckwith, L., Crawford, S., Moore, J. A., & Howard, J. (1995). Attentional and social functioning of preschool-age children exposed to PCP and cocaine in utero. In M. Lewis & M. Bendersky (Eds.), *Mothers, babies, and cocaine: The role of toxins in development*. New Jersey: Lawrence Earlbaum Associates.
- Beckwith, L., Howard, J., Espinosa, M., & Tyler, R. (1999). Psychopathology, mother-child interaction, and infant development: substance-abusing mothers and their offspring. *Development and Psychopathology*, 11, 715-725.
- Beckwith, L., Rodning, C., Norris, D., Phillipsen, L., Khandabi, P., & Howard, J. (1994). Spontaneous play in two-year-olds born to substance-abusing mothers. *Infant Mental Health Journal*, 15, 189-201.
- Bee, H. L., Barnard, K. E., Eyres, S. J., Gray, C. A., Hammond, M. A., Spietz, A. L., et al. (1982). Prediction of IQ and language skills from perinatal status, child performance, family characteristics, and mother-infant interaction. *Child Development*, 53, 1134-1156.
- Bendersky, M., Alessandri, S. M., Sullivan, M. W., & Lewis, M. (1995). Measuring the effects of prenatal cocaine exposure. In M. Lewis & M. Bendersky (Eds.), *Mothers, babies, and cocaine: The role of toxins in development* (pp. 163-178). New Jersey: Lawrence Earlbaum Associates.
- Bennett, A. (2008). Cannabis: a harm reduction perspective, in: A cannabis reader: global issues and local experiences. Monograph Series 8, Volume 1 (pp. 171-183). Lisbon: European Monitoring Centre for Drugs and Drug Addiction [EMCDDA]. Retrieved from www.emcdda.europa.eu/publications/monographs/cannabis.
- Bennett, D. S., Bendersky, M., & Lewis, M. (2002). Children's intellectual and emotional-behavioral adjustment at 4 years as a function of cocaine exposure, maternal characteristics and environmental risk. *Developmental Psychology*, 38, 648-658.
- Berg, B. (1989). *Qualitative research methods for the social sciences* (4th ed.). Massachusetts: Allyn & Bacon.
- Berger, L. M., & Waldfogel, J. (2000). Prenatal cocaine exposure: long-run effects and policy implications. *The Social Service Review*, 74, 28-54.
- Berger, P., & Luckman, T. (1966). *The social construction of reality*. Middlesex: Penguin.

- Bernstein, V., Jeremy, R. J., Hans, S., & Marcus, J. (1984). A longitudinal study of offspring born to methadone-maintained women: II. Dyadic Interaction and infant behavior at four months. *American Journal of Drug and Alcohol Abuse*, 10, 161-193.
- Beyers, J. M., Toumbourou, J. W., Catalano, R. F., Arthur, M. W., & Hawkins, J. D. (2004). A cross-national comparison of risk and protective factors for adolescent substance use: The United States and Australia. *Journal of Adolescent Health*, 35, 3-16.
- Bierut, L., Dinwiddie, S., Belgleiter, H., Crowe, R., Hesselbrock, V., Nurnberger, J., et al. (1998). Familial transmission of substance dependence: alcohol, marijuana, cocaine, and habitual smoking: a report from the collaborative study on the genetics of alcoholism. *Archives of General Psychiatry*, 55, 982-988.
- Billing, L., Eriksson, M., Jonsson, B., Steneroth, G., & Zetterstrom, R. (1994). The influence of environmental factors on behavioural problems in 8-year-old children exposed to amphetamine during fetal life. *Child Abuse and Neglect*, 18, 3-9.
- Billing, L., Eriksson, M., Steneroth, G., & Zetterstrom, M. D. (1988). Predictive indicators for adjustment in 4-year-old children whose mothers used amphetamine during pregnancy. *Child Abuse and Neglect*, 12, 503-507.
- Billing, L., Eriksson, M., Steneroth, G., & Zetterstrom, R. (1985). Preschool children of amphetamine-addicted mothers. I. Somatic and psychomotor development. *Acta Paediatrica Scandinavica*, 74, 179-184.
- Bingham, N., & Cheverall, P. (2011). Guest editorial - cannabis cautioning scheme. *NCPIC e-zine*, 2.
- Black, R., & Mayer, J. (1980). Parents with special problems: alcoholism and opiate addiction. *Child Abuse and Neglect*, 4, 45-54.
- Black, R., Mayer, J., & Zaklan, A. (1981). The relationship between opiate abuse and child abuse and neglect. In T. Glynn (Ed.), *Drugs and the family, NIDA Research Issue 29* (pp. 74-75). Maryland: National Institute on Drug Abuse [NIDA].
- Blaze-Temple, D., & Lo, S. K. (1992). Stages of drug use: a community survey of Perth teenagers. *British Journal of Addiction*, 87, 215-225.
- Bloch, B., Thyssen, B., Morrill, G. A., Gardner, E., & Fujimoto, C. (1978). Effects of cannabinoids on reproduction and development. *Vitamins and Hormones*, 36, 203-258.
- Block, J., Block, J., & Keyes, S. (1988). Longitudinally foretelling drug usage in adolescence: early childhood personality and environmental precursors. *Child Development*, 59, 336-355.
- Blows, S., Ivers, R. Q., Connor, J., Ameratunga, S., Woodward, M., & Norton, R. (2005). Marijuana use and car crash injury. *Addiction*, 100, 605-611.
- Bohnert, K.M., Anthony, J.C., & Breslau, N. (2011). Parental monitoring at age 11 and subsequent onset of cannabis use up to age 17: results from a prospective study. *Journal of Studies on Alcohol and Drugs*, 73, 173-177.
- Bond, L., Thomas, L., Toumbourou, J., Patton, G., & Catalano, R. (2000). Improving the lives of young Victorians in our community: a survey of risk and protective factors. Parkville, Australia: Centre for Adolescent Health.
- Bornstein, M. H. (1989). Between caretakers and their young: two modes of interaction and their consequences for cognitive growth. In M. Bornstein & J. Bruner (Eds.), *Interaction in human development* (pp. 237-294). New Jersey: Lawrence Earlbaum Associates.

- Boulougouris, C. J., Liakos, A., & Stefanis, C. (1976). Social traits of heavy hashish users and matched controls. *Annals of the New York Academy of Science*, 282, 17-23.
- Bouma, G. D. (2000). *The research process* (4th ed.). Melbourne: Oxford University Press.
- Bovasso, G. B. (2001). Cannabis abuse as a risk factor for depressive symptoms. *American Journal of Psychiatry*, 158, 2033-2037.
- Bowlby, J. (1973). *Attachment and loss: volume 2. Separation: anxiety and anger*. Middlesex, UK: Penguin.
- Bowlby, J. (1984). *Attachment and loss: volume 1. Attachment* (2nd ed.). Middlesex, UK: Pelican Books.
- Bowman, M., & Pihl, R. O. (1973). Cannabis: psychological effects of chronic heavy use: a controlled study of intellectual functioning in chronic users of high potency cannabis. *Pharmacologia*, 29, 150-179.
- Boyd, C. (1993). The antecedents of women's crack cocaine abuse: family substance abuse, sexual abuse, depression and illicit drug use. *Journal of Substance Abuse Treatment*, 10, 433-438.
- Boyd, C., & Mieczkowski, T. (1990). Drug use, health, family and social support in "crack" cocaine users. *Addictive Behaviors*, 15, 481-485.
- Boyd, S. C. (1999). *Mothers and illicit drugs*. Toronto: University of Toronto Press.
- Boyd, S. C. (2000). Feminist research on mothers and illegal drugs. *Resources for Feminist Research*, 113, 119-.
- Boyd, S. J., Tashkin, D. P., Huestis, M. A., Heishman, S. J., Dernand, J. C., Simmons, M. S., et al. (2005). Strategies for quitting among non-treatment-seeking marijuana users. *American Journal on Addictions*, 14, 35-42.
- Brennan, P. A., Hammen, C., Andersen, M. J., Bor, W., Najman, J. M., & Williams, G. M. (2000). Chronicity, severity, and timing of maternal depressive symptoms: relationships with child outcomes at age 5. *Developmental Psychology*, 36, 759-766.
- Brisby, T., Baker, S., & Hedderwick, T. (1997). *Under the influence: coping with parents who drink too much*. London: Alcohol Concern.
- Brook, J., Tseng, L., & Cohen, P. (1996). Toddler adjustment: impact of parents' drug use, personality, and parent-child relations. *Journal of Genetic Psychology*, 157, 281-295.
- Brook, J., Whiteman, M., & Gordon, A. S. (1983). Stages of drug use in adolescence: personality, peer, and family correlates. *Developmental Psychology*, 19, 269-277.
- Brook, J., Whiteman, M., Gordon, A. S., & Cohen, P. (1989). Changes in drug involvement: a longitudinal study of childhood and adolescent determinants. *Psychological Reports*, 65, 707-726.
- Brook, J., Whiteman, M., Nomura, C., Gordon, A. S., & Cohen, P. (1988). Personality, family, and ecological influences on adolescent drug use: a developmental analysis. *Journal of Chemical Dependency Treatment*, 1, 123-161.
- Brook, J. S., Brook, D. W., Arencibia-Mireles, O., Richter, L., & Whiteman, M. (2001). Risk factors for adolescent marijuana use across cultures and across time. *Journal of Genetic Psychology*, 162, 357-374.

- Brook, J. S., Brook, D. W., De La Rosa, M., Whiteman, M., Johnson, E., & Montoya, I. (2001). Adolescent illegal drug use: the impact of personality, family, and environmental factors. *Journal of Behavioral Medicine, 24*, 183-203.
- Brook, J. S., Brook, D. W., Gordon, A. S., Whiteman, M., & Cohen, P. (1990). The psychosocial etiology of adolescent drug use: a family interactional approach. *Genetic, Social and General Psychology Monographs, 116*, 111-267.
- Brook, J. S., Gordon, A. S., & Whiteman, M. (1985). Stability of personality during adolescence and its relationship to stage of drug use. *Genetic, Social and General Psychology Monographs, 111*, 317-330.
- Brook, J. S., Kessler, R. C., & Cohen, P. (1999). The onset of marijuana use from preadolescence and early adolescence to young adulthood. *Development and Psychopathology, 11*, 901-914.
- Brook, J. S., & Newcomb, M. D. (1995). Childhood aggression and unconventionality: impact on later academic achievement, drug use, and workforce involvement. *Journal of Genetic Psychology, 156*, 393-410.
- Brook, J. S., Whiteman, M., Balka, E. B., & Cohen, P. (1995). Parent drug use, parent personality, and parenting. *Journal of Genetic Psychology, 156*, 137-151.
- Brook, J. S., Zhang, C., Koppel, J., & Brook, D. W. (2008). Pathways from earlier marijuana use in the familial and non-familial environments to self-marijuana use in the fourth decade of life. *American Journal on Addictions, 17*, 497-503.
- Budney, A. J., & Hughes, J. R. (2006). The cannabis withdrawal syndrome. *Current Opinion in Psychiatry, 19*, 233-238.
- Budney, A. J., Hughes, J. R., Moore, B. A., & Novy, P. L. (2001). Marijuana abstinence effects in marijuana smokers maintained in their home environment. *Archives of General Psychiatry, 58*, 917-924.
- Budney, A. J., Moore, B. A., Vandrey, R. G., & Hughes, R. (2003). The time course and significance of cannabis withdrawal. *Journal of Abnormal Psychology, 112*, 393-402.
- Budney, A. J., Novy, P. L., & Hughes, J. R. (1999). Marijuana withdrawal among adults seeking treatment for marijuana dependence. *Addiction, 94*, 1311-1321.
- Budney, A. J., & Stanger, C. (2012). Cannabis use and misuse. In J. M. Rey (Ed.), *IACAPAP e-Textbook of Child and Adolescent Mental Health*. Geneva: International Association for Child and Adolescent Psychiatry and Allied Professions
- Burns, W., & Burns, K. (1988). Parenting dysfunction in chemically dependent women. In I. Chasnoff (Ed.), *Drugs, alcohol, pregnancy and parenting*. Boston: Kluwer.
- Cadore, R., Troughton, E., Merchant, L., & Whitters, A. (1990). An adoption study of genetic and environmental factors in drug abuse. *Archives of General Psychiatry, 43*, 1131-1136.
- Cadore, R. J., Troughton, E., O'Gorman, T., & Heywood, E. (1986). An adoption study of genetic and environmental factors in drug abuse. *Archives of General Psychiatry, 43*, 1131-1136.
- Cadore, R. J., Yates, W. R., Troughton, E., Woodworth, G., & Stewart, M. A. (1995). Adoption study demonstrating two genetic pathways to drug abuse. *Archives of General Psychiatry, 52*, 42-52.
- Calsyn, D., & Saxon, A. (1988). Identification of personality disorder subtypes among drug abusers using the Millon Clinical Multiaxial Inventory. *49th Annual Scientific Meeting of the*

- Committee on Problems of Drug Dependence, 1987. Research Monograph Series No. 81* (pp. 299). Maryland: National Institute on Drug Abuse.
- Carlini, E., Hamaoui, A., & Märtz, R. M. W. (2012). Factors influencing the aggressiveness elicited by marihuana in food-deprived rats. *British journal of pharmacology*, 44, 794-804.
- Carmichael Olson, H., Grant, T. M., Martin, J. C., & Streissguth, A. P. (1995). A cohort study of prenatal cocaine exposure: addressing methodological concerns. In M. Lewis & M. Bendersky (Eds.), *Mothers, babies, and cocaine: The role of toxins in development* (pp. 129-162). New Jersey: Lawrence Earlbaum Associates.
- Carroll, K. M., & Rounsaville, B. J. (1992). Contrast of treatment-seeking and untreated cocaine abusers. *Archives of General Psychiatry*, 49, 464-471.
- Carter, W. E., & Doughty, P. L. (1976). Social and cultural aspects of cannabis use in Costa Rica. *Annals of the New York Academy of Science* 282, 2-16.
- Cartwright, L. G., & Mather, L. E. (2006). Investigations of some samples of Australian grown cannabis. *Australian Journal of Pharmaceutical Sciences*, NS1, 49-51.
- Caspi, A., Moffitt, T. E., Cannon, M., McClay, J., Murray, R., Harrington, H., et al. (2005). Moderation of the effect of adolescent-onset cannabis use on adult psychosis by a functional polymorphism in the catechol-o-methyltransferase gene: Longitudinal evidence of a gene x environment interaction. *Biological Psychiatry*, 57, 1117-1127.
- Cernerud, L., Eriksson, M., Jonsson, B., Steneroth, G., & Zetterstrom, R. (1996). Amphetamine addiction during pregnancy: 14 years follow up of growth and school performance. *Acta Paediatrica*, 85, 204-208.
- Chacin, S. (1996). Women's marijuana problems: an overview of the implications for outreach, intervention, treatment and research. In B. Underhill & D. Finnegan (Eds.), *Chemical dependency: women at risk*. New York: Haworth Press.
- Chambers, R. A., Taylor, J. R., & Potenza, M. N. (2003). Developmental neurocircuitry of motivation in adolescence: a critical period of addiction vulnerability. *Drug and Alcohol Dependence*, 79, 11-22.
- Chasnoff, I. J. (1992). Cocaine, pregnancy, and the growing child. *Current Problems in Pediatrics*, 22, 302-321.
- Chasnoff, I. J., Anson, A., Hatcher, R., Stentson, H., Lauke, K. A. M., & Randolph, L. A. (1998). Prenatal exposure to cocaine and other drugs: outcome at four to six years. *Annals of the New York Academy of Sciences*, 846, 314-328.
- Chasnoff, I. J., Griffith, D. R., Freier, C., & Murray, J. (1992). Cocaine/polydrug use in pregnancy: two-year follow-up. *Pediatrics*, 89, 284-289.
- Chasnoff, I. J., Griffith, D. R., MacGregor, S., & al., E. (1989). Temporal patterns of cocaine use in pregnancy. *Journal of the American Medical Association*, 261, 1741-1744.
- Chasnoff, I. J., Landress, H., & Barrett, M. (1990). The prevalence of illicit-drug or alcohol use during pregnancy and discrepancies in mandatory reporting in Pinellas County, Florida. *New England Journal of Medicine*, 322, 1202-1206.
- Chasnoff, I. J., Lewis, D. E., & Squires, L. (1987). Cocaine intoxication in a breast-fed infant. *Pediatrics*, 80, 836-838.

- Chasnoff, I. J., Schnoll, S. H., Burns, W. J., & Burns, K. (1984). Maternal non-narcotic substance abuse during pregnancy: effects on infant development. *Neurobehavioral Toxicology and Teratology*, 6, 277-280.
- Chavkin, W., Paone, D., Friedmann, P., & Wilets, I. (1993). Psychiatric histories of drug using mothers: treatment implications. *Journal of Substance Abuse Treatment*, 10, 445-448.
- Chen, C. Y., O'Brien, M. S., & Anthony, J. C. (2005). Who becomes cannabis dependent soon after onset of use? Epidemiological evidence from the United States: 2000-2001. *Drug and Alcohol Dependence*, 79, 11-22.
- Chen, C., Storr, J. L., & Anthon, J. C. (2005). Influences of parenting practices on the risk of having a chance to try cannabis. *Pediatrics*, 115, 1631-1639.
- Cherek, D. R. (1981). Effects of smoking different doses of nicotine on human aggressive behavior. *Psychopharmacology*, 75, 339-345.
- Cherek, D. R., & Dougherty, D. M. (1995). Provocation frequency and its role in determining the effects of smoked marijuana on human aggressive responding. *Behavioural Pharmacology*, 6, 405-412.
- Cherek, D. R., & Steinberg, J. L. (1987). Effects of drugs on human aggressive behavior. In G. D. Burrows & J. S. Werry (Eds.), *Advances in human psychopharmacology* (Vol. IV, pp. 239-290). Connecticut.
- Chiriboga, C. A. (2003). Fetal alcohol and drug effects. *The Neurologist*, 9, 267-279.
- Choquet, M., Hassler, C., Morin, D., Falissard, B., Nearkasen, C. (2008). Perceived parenting styles and tobacco, alcohol and cannabis use among French adolescents: gender and family structure differentials. *Alcohol and Alcoholism*, 43, 73-80.
- Chung, T., Martin, C. S., Cornelius, J. R., & Clark, D. B. (2008). Cannabis withdrawal predicts severity of cannabis involvement at 1-year follow-up among treated adolescents. *Addiction*, 103, 787-799.
- Clayton, R. R. (1992). Transitions in drug use: risk and protective factors. In M. Glantz & R. Pickens (Eds.), *Vulnerability to drug abuse* (pp. 15-51). Washington DC: American Psychological Association.
- Cleaver, H., Unell, I., & Aldgate, J. (2011). *Children's Needs - Parenting Capacity*. London: The Stationery Office.
- Coffey, C., Carlin, J. B., Degenhardt, L., Lynskey, M., Sanci, L., & Patton, G. C. (2002). Cannabis dependence in young adults: an Australian population study. *Addiction*, 97, 187-194.
- Coffey, C., Carlin, J. B., Lynskey, M., Li, N., & Patton, G. C. (2003). Adolescent precursors of cannabis dependence: findings from the Victorian Adolescent Health Cohort Study. *British Journal of Psychiatry*, 182, 330-336.
- Cohen, F. S., & Densen-Gerber, J. (1982). A study of the relationship between child abuse and drug addiction in 178 patients. *Child Abuse and Neglect*, 6, 383-387.
- Cohen, P., Brook, J., Cohen, J., Velez, C., & Garcia, M. (1990). Common and uncommon pathways to adolescent psychopathology and problem behavior. In L. Robins & M. Rutter (Eds.), *Straight and devious pathways from childhood to adulthood* (pp. 242-258): Cambridge University Press.
- Cohler, B. J., Stott, F. M., & Musick, J. S. (1995). Adversity, vulnerability, and resilience: cultural and developmental perspectives. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental*

- psychopathology: volume 2. Risk, disorder, and adaptation* (pp. 753-800). New York: John Wiley & Sons.
- Coleman, R., & Cassell, D. (1995). Parents who misuse drugs and alcohol. In P. Reder & C. Lucey (Eds.), *Assessments of parenting: psychiatric and psychological contributions*. London: Routledge.
- Coles, C., & Platzman, K. (1993). Behavioral development in children prenatally exposed to drugs and alcohol. *The International Journal of the Addictions*, 28, 1393-1433.
- Colten, M. E. (1980). A comparison of heroin-addicted and non-addicted mothers: Their attitudes, beliefs and parenting experiences *Heroin-addicted parents and their children: two reports*. Maryland: National Institute on Drug Abuse [NIDA].
- Comitas, L. (1976). Cannabis and work in Jamaica: a refutation of the amotivational syndrome. *Annals of the New York Academy of Science*, 282, 24-32.
- Committee on Drugs. (1998). Neonatal Drug Withdrawal. *Pediatrics*, 101, 1079-1088.
- Commonwealth Department of Health and Aged Care [DHAC]. (2001). Background paper: National Action Plan on Illicit Drugs, 2001 to 2002-03 Retrieved 15 January, 2009, from [http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/FF6A53409DA8D440CA25717E000CDED0/\\$File/illicitactionplan_back.pdf](http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/FF6A53409DA8D440CA25717E000CDED0/$File/illicitactionplan_back.pdf)
- Compton, D. R., Dewey, W. L., & Martin, B. R. (1990). Cannabis dependence and tolerance production. *Advances in Alcohol and Substance Abuse*, 9, 128-147.
- Connell-Carrick, K. (2007). Methamphetamine and the changing face of child welfare: practice principles for child welfare workers. *Child Welfare*, 86, 125-144.
- Conners, N. A., Bradley, R. H., Mansell, L. W., Liu, J. Y., Roberts, T. J., Burgdorf, K., et al. (2003). Children of mothers with serious substance abuse problems: an accumulation of risks. *American Journal of Drug and Alcohol Abuse*, 29, 743-758.
- Cooper, Z. D., & Haney, M. (2008). Cannabis reinforcement and dependence: role of the cannabinoid CB1 receptor. *Addiction Biology* 13, 188-195.
- Copeland, J. (2006). Management of cannabis use disorder. *Directions in Addiction Treatment & Prevention*, 10, 15-24.
- Copeland, J. (2012). What psychologists should know about cannabis use. *InPsych*, 34, 30-31.
- Copeland, J., Frewen, A., & Elkins, K. (2009). *Management of cannabis use disorder and related issues*. Sydney: National Cannabis Prevention and Information Centre, University of New South Wales.
- Copeland, J., Gerber, S., Rowland, B., & Klyde-Kingshot, E. (2005). Cannabis. Prevention research evaluation report. *Prevention Research Quarterly* Retrieved 16 January, 2007, from http://www.druginfo.adf.org.au/article.asp?ContentID=200506_researcheval
- Copeland, J., & Hall, W. (1992). A comparison of women seeking drug and alcohol treatment in a specialist women's and two traditional mixed-sex treatment services. *British Journal of Addiction*, 87, 1293-1302.
- Copeland, J., & Swift, W. (2009). Cannabis use disorder: epidemiology and management. *International Review of Psychiatry*, 21, 96-103.
- Copeland, J., Swift, W., & Rees, V. (2001). Clinical profile of participants in a brief intervention program for cannabis use disorder. *Journal of Substance Abuse Treatment*, 20, 45-52.

- Copello, A., Orford, J., Velleman, R., Templeman, L., & Krishnan, M. (2000). Methods for reducing alcohol and drug related family harm in non-specialized settings. *Journal of Mental Health, 9*, 329-343.
- Copersino, M., Boyd, S., Tashkin, D., Huestis, M., Heishman, S., Dermand, J., et al. (2006a). Quitting among non-treatment-seeking marijuana users: reasons and changes in other substance use. *American Journal on Addictions, 15*, 297-.
- Copersino, M. L., Boyd, S. J., Tashkin, D. P., Huestis, M. A., Heishman, S. J., Dermand, J. C., et al. (2006b). Cannabis withdrawal among non-treatment-seeking adult cannabis users. *American Journal on Addictions, 15*, 8-14.
- Corbett, V. (2005). 'I just knew to keep it quiet...' Living with parental problematic substance use. *Adoption & Fostering Journal, 29*, 98-100.
- Coster, W. J., Gersten, M. S., Beeghly, M., & Cicchetti, D. (1989). Communicative functioning in maltreated toddlers. *Developmental Psychology, 25*, 1020-1029.
- Croughan, J. (1985). *The contributions of family studies to understanding drug abuse, in studying drug abuse*. New Jersey: Rutgers University Press.
- D'Souza, D. C., Abi-Saab, W., Madonick, S., Wray, Y., Porselius, K., MacDougall, L., et al. (2000). Cannabinoids and psychosis: evidence from studies with i.v. THC in schizophrenic patients and controls (abstract). *Schizophrenia Research, 41*, 33-.
- Dalterio, S. L., & Fried, P. A. (1992). The effects of marijuana use on offspring. In T. Sonderegger (Ed.), *Perinatal substance abuse: research findings and clinical implications* (pp. 161-183). Maryland: Johns Hopkins University Press.
- Darke, S., & Hall, W. (1995). Levels and correlates of polydrug use among heroin users and regular amphetamine users. *Drug and Alcohol Dependence, 39*, 231-235.
- Darke, S., Kaye, S., McKetin, R., & Duflou, J. (2008). Major physical and psychological harms of methamphetamine use. *Drug and Alcohol Review, 27*, 253-262.
- Darke, S., Ross, J., Hando, J., Hall, W., & Degenhardt, L. (2000). Illicit drug use in Australia: Epidemiology, use patterns and associated harm. *National Drug Strategy Monograph Series, No. 43* Retrieved 12 December, 2005, from <http://www.health.gov.au/internet/wcms/publishing.nsf/content/phd-drugs-mono43-cnt.htm>
- Darlaston-Jones, D. (2007). Making connections: the relationship between epistemology and research methods. *The Australian Community Psychologist, 19*, 19-26.
- Davies, J. B. (1997). *Drugspeak: the analysis of drug discourse*. Amsterdam: Harwood Academic Publishers.
- Davis, S. (1990). Chemical dependency in women: a description of its effects and outcome on adequate parenting. *Journal of Substance Abuse Treatment, 7*, 225-232.
- Dawe, S., Frye, S., Best, D., Moss, D., Atkinson, J., Evans, C., et al. (2006). Drug use in the family: impacts and implications for children Retrieved 13 May 2008, from http://www.ancd.org.au/publications/pdf/rp13_drug_use_in_family.pdf
- Dawe, S., Harnett, P., & Frye, S. (2008). Improving outcomes for children living in families with parental substance misuse: what do we know and what should we do. *Child Abuse Prevention Issues, 29*. Retrieved from <http://www.aifs.gov.au/nch/pubs/issues/issues29/issues29.html>

- Dawe, S., & McKetin, R. (2004). The psychiatric comorbidity of psychostimulant use. In A. Baker, N. K. Lee & L. Jenner (Eds.), *Models of intervention and care for psychostimulant users, 2nd ed. National Drug Strategy Monograph Series, No. 51* (pp. 154-168). Canberra: Australian Government Department of Health and Ageing.
- Day, N., & Leonard, K. (1985). Alcohol, drug use, and psychopathology in the general population. In A. I. Alterman (Ed.), *Substance abuse and psychopathology* (pp. 15-43). New York: Plenum Press.
- Day, N., Richardson, G., Goldschmidt, L., Robles, N., Taylor, P., Stoffer, D., et al. (1994). The effect of prenatal marijuana exposure on the cognitive development of offspring at age three. *Neurotoxicology and Teratology, 16*, 169-175.
- Day, N. L., & Richardson, G. A. (1991). Prenatal marijuana use: epidemiology, methodologic issues, and infant outcome. [review]. *Clinics in Perinatology, 18*, 77-91.
- de Wit, D., Offord, D., & Wong, M. (1997). Patterns of onset and cessation of drug use over the early part of the life course. *Health Education and Behavior, 25*, 746-758.
- Dear, G. E. (1996). What happened to the family in the harm reduction debate? [editorial]. *Drug and Alcohol Review, 15*, 221-223.
- Degenhardt, L., Coffey, C., Romaniuk, H., Swift, W., Carlin, J. B., Hall, W. D., et al. (2012). The persistence of the association between adolescent cannabis use and common mental disorders into young adulthood. *Addiction*. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.1360-0443.2012.04015.x/pdf>
- Degenhardt, L., & Hall, W. (2006). Is cannabis use a contributory cause of psychosis? *Canadian Journal of Psychiatry, 51*, 556-565.
- Degenhardt, L., Hall, W., & Lynskey, M. (2000a). Cannabis use and mental health among Australian adults: Findings from the National Survey of Mental Health & Well-being *NDARD Technical Report No. 98*
- Degenhardt, L., Hall, W., & Lynskey, M. (2003). Exploring the association between cannabis use and depression. *Addiction, 98*, 1493-1504.
- Degenhardt, L., Lynskey, M., & Hall, W. (2000b). Cohort trends in the age of initiation of drug use in Australia. *Australian and New Zealand Journal of Public Health, 24*, 421-426.
- Delahunty, B., & Putt, J. (2006). *The policing implications of cannabis, amphetamine and other illicit drug use in Aboriginal and Torres Strait Islander communities*. Sydney: National Drug Law Enforcement Research Fund.
- Delaney-Black, V., Covington, C., Templin, T., Kershaw, T., Nordstrom-Klee, B., Ager, J., et al. (2000). Expressive language development of children exposed to cocaine prenatally: literature review and report of a prospective cohort study. *Journal of Communication Disorders, 33*, 463-481.
- Dembo, R., Williams, L., La Voie, L., Schmeidler, J., Kern, J., Getreu, A., et al. (1990). A longitudinal study of the relationships among alcohol use, marijuana/hashish use, cocaine use, and emotional/psychological functioning problems in a cohort of high-risk youth. *International Journal of the Addictions, 25*, 1341-1382.
- Dempsey, D. A., & Benowitz, N. L. (2001). Risks and benefits of nicotine to aid smoking cessation in pregnancy. *Drug Safety, 24*, 277-232.
- Denckla, M. B. (1996). A theory and model of executive function. In G. Lyn & N. Krasnegor (Eds.), *Attention, memory and executive function* (pp. 263-278). Baltimore: Paul H. Brookes.

- Dennis, M., Babor, T. F., Roebuck, M. C., & Donaldson, J. (2002). Changing the focus: the case for recognizing and treating cannabis use disorders. *Addiction*, 97, 4-15.
- Denson, T. F., & Earleywine, M. (2006). Decreased depression in marijuana users. *Addictive Behaviors*, in press 2006.
- Deren, S. (1986). Children of substance abusers: a review of the literature. [review]. *Journal of Substance Abuse Treatment*, 3, 77-94.
- Dickson, P. H., Lind, A., Studts, P., Nippe, H. C., Makoid, M., & Therkildsen, D. (1994). The routine analysis of breast milk for drug abuse in a clinical toxicology laboratory. *Journal of Forensic Sciences*, 39, 207-214.
- Dishion, T. J., Reid, J. B., & Patterson, G. R. (1988). Empirical guidelines for a family intervention for adolescent drug use. *Journal of Chemical Dependency Treatment*, 1, 189-224.
- Dixon, S. D. (1989). Effects of transplacental exposure to cocaine and methamphetamine on the neonate. *Western Journal of Medicine*, 150, 436-442.
- Donnelly, N., & Hall, W. (1994). *Patterns of cannabis use in Australia, National Drug Strategy Monograph No. 27*. Canberra: Australian Government Publishing Service.
- Donovan, J. E., & Jessor, R. (1983). Problem drinking and the dimensions of involvement with drugs. *American Journal of Public Health*, 73, 543-552.
- Donovan, J. E., & Jessor, R. (1985). Structure of problem behavior in adolescence and young adulthood *Journal of Consulting and Clinical Psychology*, 53, 890-904.
- Dow-Edwards, D., Chasnoff, I. J., & Griffith, D. R. (1992). Cocaine use during pregnancy. In T. Sonderegger (Ed.), *Perinatal substance abuse: research findings and clinical implications* (pp. 184-206). London: Johns Hopkins University Press.
- Dreher, M. (1997). Cannabis and pregnancy. In M. L. Mathre (Ed.), *Cannabis in medical practice: a legal, historical and pharmacological overview of the therapeutic use of marijuana*. North Carolina: McFarland.
- Dreher, M. C., Nugent, K., & Hudgins, R. (1994). Prenatal marijuana exposure and neonatal outcomes in Jamaica: an ethnographic study. *Pediatrics*, 93, 254-260.
- Duncan, J., Burgess, P., & Emslie, H. (1995a). Fluid intelligence after frontal lobe lesions. *Neuropsychologia*, 33, 261-268.
- Duncan, T. E., Duncan, S. C., Hops, H., & Stoolmiller, M. (1995b). An analysis of the relationship between parent and adolescent marijuana use via generalized estimating equation methodology. *Multivariate Behavioral Research*, 30, 317-339.
- Duncan, T. E., Duncan, S. E., & Hops, H. (1996). The role of parents and older siblings in predicting adolescent substance use: modeling development via structural equation latent growth modeling. *Journal of Family Psychology*, 10, 158-172.
- Dyer, K. R., & Cruickshank, C. C. (2005). Depression and other psychological health problems among methamphetamine dependent patients in treatment: implications for assessment and treatment outcome. *Australian Psychologist*, 40, 96-108.
- Earleywine, M. (2002). *Understanding marijuana*. New York: Oxford University Press.
- Ebrahim, S. H., & Gfroerer, J. (2003). Pregnancy-related substance use in the United States during 1996 - 1998. *Obstetrics and Gynecology*, 101, 374-379.

- Elicker, J., Egeland, M., & Sroufe, L. A. (1992). Predicting peer competence and peer relationships. In R. Parke & G. W. Ladd (Eds.), *Family-peer relationships: modes of linkage*. New Jersey: Erlbaum.
- Ellingstad, T. P., Sobell, L. C., Sobell, M. B., Eickleberry, L., & Golden, C. J. (2006). Self-change: a pathway to cannabis abuse resolution. *Addictive Behaviors*, 31, 519-530.
- Ellinwood, E. H. (1971). Assault and homicide associated with amphetamine abuse. *American Journal of Psychiatry*, 127, 1170-1175.
- Elliott, D., Huizinga, D., & Ageton, S. (1985). *Explaining delinquency and drug use*. California: Sage.
- ElSohly, M. A., Ross, S. A., Mehmedic, Z., Ararat, R., Yi, B., & Banahan, B. F. (2000). Potency trends of Δ^9 -THC and other cannabinoids in confiscated marijuana from 1980-1997. *Journal of Forensic Science*, 45, 24-30.
- Emshoff, J. G., & Price, A. W. (1999). Prevention and intervention strategies with children of alcoholics. *Pediatrics*, 103, 1112-1121.
- Erickson, P. G., & Murray, G. F. (1989). The undeterred cocaine user: intention to quit and its relationship to perceived legal and health threats. *Contemporary Drug Problems*, 16, 141-156.
- Eriksson, M., Billing, L., Steneroth, G., & Zetterstrom, R. (1989). Health and development of 8-year old children whose mothers abused amphetamine during pregnancy. *Acta Paediatrica Scandinavica*, 78, 944-949.
- Eriksson, M., & Zetterstrom, M. D. (1994). Amphetamine addiction during pregnancy: 10-year follow-up. ?
- Ettorre, E. (1992). *Women and substance use*. London: Macmillan.
- European Monitoring Centre for Drugs and Drug Addiction [EMCDDA]. (2004). EMCDDA Insights. An overview of cannabis potency in Europe. Retrieved 27 July, 2006
- Eyler, F. D., Behnke, M., Garvan, C. W., Woods, N. S., Wobie, K., & Conlon, M. (2001). Newborn evaluations of toxicity and withdrawal related to prenatal cocaine exposure. *Neurotoxicology and Teratology*, 23, 399-411.
- Faden, V. B., & Graubard, B. I. (2000). Maternal substance use during pregnancy and developmental outcome at age three. *Journal of Substance Abuse*, 12, 329-340.
- Fagan, J., Weis, J. G., & Cheng, Y. (1990). Delinquency and substance use among inner-city students. *Journal of Drug Issues*, 20, 351-402.
- Fajemirokun-Oduyeyi, O., & Lindow, S. W. (2004). Obstetric implications of cocaine use in pregnancy: a literature review. *European Journal of Obstetrics and Gynecology and Reproductive Biology*, 112, 2-8.
- Famularo, R., Kinscherff, R., & Fenton, T. (1992). Parental substance abuse and the nature of child maltreatment. *Child Abuse and Neglect*, 16, 475-483.
- Farrell, A. D., Danish, S. J., & Howard, C. W. (1992). Relationship between drug use and other problem behaviors in urban adolescents. *Journal of Consulting and Clinical Psychology*, 60, 705-712.
- Fawzy, F., Coombs, R., & Gerber, B. (1983). Generational continuity in the use of substances: the impact of parental substance use on adolescent substance use. *Addictive Behaviors*, 8, 109-114.

- Feig, L. (1998). Understanding the problem: the gap between substance abuse programs and child welfare services. In R. Hampton, V. Senatore & T. Gullotta (Eds.), *Substance abuse, family violence and child welfare: bridging perspectives* (pp. 62-95). California: Sage.
- Felder, C. C., & Glass, M. (1998). Cannabinoid receptors and their endogenous agonists. *Annual Review of Pharmacology and Toxicology*, 38, 179-200.
- Felner, R. D. (2006). Poverty in childhood and adolescence. A transactional-ecological approach to understanding and enhancing resilience in contexts of disadvantage and developmental risk. In S. Goldstein & R. Brooks (Eds.), *Handbook of resilience in children* (pp. 125-147). New York: Springer.
- Fergusson, D. M. (2009). *Cannabis harms: what the evidence tells us*. Paper presented at the 1st National Cannabis Conference, Sydney.
- Fergusson, D. M., Boden, J. M., & Horwood, L. J. (2006). Cannabis use and other illicit drug use: testing the cannabis gateway hypothesis. *Addiction*, 101, 556-569.
- Fergusson, D. M., & Horwood, L. J. (2000). Does cannabis use encourage other forms of illicit drug use? *Addiction*, 95, 505-520.
- Fergusson, D. M., Horwood, L. J., & Beautrais, A. L. (2003a). Cannabis and educational achievement. *Addiction*, 98, 1681-1692.
- Fergusson, D. M., Horwood, L. J., Lynskey, M. T., & Madden, P. A. (2003b). Early reactions to cannabis predict later dependence. *Archives of General Psychiatry*, 60, 1033-1039.
- Fergusson, D. M., Horwood, L. J., Northstone, K., & ALSPAC Study Team. (2002). Avon Longitudinal Study of Pregnancy and Childhood. Maternal use of cannabis and pregnancy outcome. *British Journal of Obstetrics & Gynaecology*, 109, 21-27.
- Fergusson, D. M., Horwood, L. J., & Ridder, E. M. (2005). Tests of causal linkages between cannabis and psychotic symptoms. *Addiction*, 100, 354-366.
- Fergusson, D. M., Horwood, L. J., & Swain-Campbell, N. (2002). Cannabis use and psychosocial adjustment in adolescence and young adulthood. *Addiction*, 97, 1123-1135.
- Fergusson, D. M., & Lynskey, M. T. (1998). Conduct problems in childhood and psychosocial outcomes in adolescence: A prospective study. *Journal of Emotional and Behavioral Disorders*, 6, 6-12.
- Finkelhor, D., Hotaling, G., Lewis, I. A., & Smith, C. (1990). Sexual abuse in a national survey of adult men and women: prevalence, characteristics, and risk factors. *Child Abuse and Neglect*, 14, 19-28.
- Finnegan, L. P. (1991). Treatment issues for opioid-dependent women during the perinatal period. *Journal of Psychoactive Drugs*, 23, 191-201.
- Finnegan, L. P., & Fehr, K. O. (1980). The effects of opiates, sedative-hypnotics, amphetamines, cannabis, and other psychoactive drugs on the fetus and newborn. In O. Kalant (Ed.), *Alcohol and drug problems in women* (Vol. 5, pp. 653-723). New York: Plenum.
- Flory, K., Lynam, D., Milich, R., Leukefelod, C., & Clayton, R. (2002). The relations among personality, symptoms of alcohol and marijuana abuse, and symptoms of comorbid psychopathology: Results from a community sample. *Experimental and Clinical Psychopharmacology*, 10, 425-434.

- Forrester, D. (2000). Parental substance misuse and child protection in a British sample: a survey of children on the Child Protection Register in an inner London district office. *Child Abuse Review*, 9, 235-246.
- Forth-Finegan, J. L. (1991). Sugar and spice and everything nice: gender socialization and women's addiction. A literature review. In C. Bepko (Ed.), *Feminism and addiction* (pp. 19-48). New York: Hawthorn Press.
- Fox, R., & Mathews, I. (1992). *Drugs policy: Fact, fiction and the future*. Sydney: Federation Press.
- Frank, D., Zuckerman, B., Amaro, H., Aobagye, K., Bauchner, H., Cabral, H., et al. (1988). Cocaine use during pregnancy: prevalence and correlates. *Pediatrics*, 82, 888-895.
- Frank, D. A., Augustyn, M., Knight, W. G., Pell, T., & Zuckerman, B. (2001). Growth, development, and behavior in early childhood following prenatal cocaine exposure. A systematic review. *Journal of the American Medical Association*, 285, 1613-1625.
- Frank, D. A., Jacobs, R. R., Beeghly, M., Augustyn, M., Bellinger, D., Cabral, H., et al. (2006). Level of prenatal cocaine exposure and scores on the Bayley Scales of Infant Development: Modifying effects of caregiver, early intervention, and birth weight. *Pediatrics*, 110, 1143-1152.
- Fraser, L. (1994). Codependency issues: a feminist perspective. In D. H. Broom (Ed.), *Double bind: women affected by alcohol and other drugs* (pp. 121-137). Sydney: Allen & Unwin.
- Free, T., Russell, F., Mills, B., & Hathaway, D. (1990). A descriptive study of infants and toddlers exposed prenatally to substance abuse. *Maternal and Child Nursing*, 15, 245-249.
- French, E. D., Dillon, K., & Wu, X. (1997). Cannabinoids excite dopamine neurons in the ventral tegmentum and substantia nigra. *NeuroReport*, 8, 649-652.
- Fridberg, D. J., Vollmer, J. M., O'Donnell, B. F., & Skosnik, P. D. (2011). Cannabis users differ from non-users on measures of personality and schizotypy. *Psychiatry Research*, 186, 46-52.
- Fried, P. A. (1980). Marijuana use by pregnant women: neurobehavioural effects in neonates. *Drug and Alcohol Dependence*, 6, 415-424.
- Fried, P. A. (1982). Marijuana use by pregnant women and effects on offspring: an update. *Neurobehavioral Toxicology and Teratology*, 4, 451-454.
- Fried, P. A. (1991). Postnatal consequences of maternal marijuana use during pregnancy: consequences for the offspring. *Seminars in Perinatology*, 15, 280-287.
- Fried, P. A. (1996). Behavioral outcomes in preschool and school-age children exposed prenatally to marijuana: a review and speculative interpretation. In C. Wetherington, V. L. Smeriglio & L. Finnegan (Eds.), *Behavioral studies of drug-exposed offspring: methodological issues in human and animal research. Monograph Series No. 164* (pp. 242- 260). Maryland: National Institute on Drug Abuse.
- Fried, P. A. (2002). The consequences of marijuana use during pregnancy: a review of the human literature. *Journal of Cannabis Therapeutics*, 2, 85-104.
- Fried, P. A., Barnes, M. V., & Drake, E. R. (1985). Soft drug use after pregnancy compared to use before and during pregnancy. *American Journal of Obstetrics and Gynecology*, 151, 787-792.
- Fried, P. A., & Makin, J. E. (1987). Neonatal behavioral correlates of prenatal exposure to marijuana, cigarettes and alcohol in a low risk population. *Neurotoxicology and Teratology*, 9, 1-7.

- Fried, P. A., O'Connell, & Watkinson, B. (1992a). 60- and 72-month follow-up of children prenatally exposed to marijuana, cigarettes, and alcohol: cognitive and language assessment. *Developmental and Behavioral Pediatrics, 13*, 383-391.
- Fried, P. A., & Smith, A. (2001). A literature review of the consequences of prenatal marihuana exposure. An emerging theme of a deficiency in aspects of executive function. *Neurotoxicology and Teratology, 23*, 1-11.
- Fried, P. A., & Watkinson, B. (1988). 12- and 24-month neurobehavioral follow-up of children prenatally exposed to marijuana, cigarettes and alcohol. *Neurotoxicology and Teratology, 10*, 305-313.
- Fried, P. A., & Watkinson, B. (1990). 36- and 48-month neurobehavioral follow-up of children prenatally exposed to marijuana, cigarettes and alcohol. *Developmental and Behavioral Pediatrics, 11*, 49-58.
- Fried, P. A., & Watkinson, B. (2000). Visuo perceptual functioning differs in 9- to 12-year-olds prenatally exposed to cigarettes and marijuana. *Neurotoxicology and Teratology, 22*, 11-20.
- Fried, P. A., & Watkinson, B. (2001). Differential effects on facets of attention in adolescents prenatally exposed to cigarettes and marihuana. *Neurotoxicology and Teratology, 23*, 421-430.
- Fried, P. A., Watkinson, B., Dillon, R. F., & Dulberg, C. S. (1987). Neonatal neurological status in a low-risk population after prenatal exposure to cigarettes, marijuana, and alcohol. *Journal of Developmental & Behavioral Pediatrics, 8*, 318-326.
- Fried, P. A., Watkinson, B., Grant, A., & Knights, R. M. (1980). Changing patterns of soft drug use prior to and during pregnancy. *Drug and Alcohol Dependence, 6*, 323-343.
- Fried, P. A., Watkinson, B., & Gray, R. (1992b). A follow-up study of attentional behavior in 6-year old children exposed prenatally to marijuana, cigarettes, and alcohol. *Neurotoxicology and Teratology, 14*, 299-311.
- Fried, P. A., Watkinson, B., & Gray, R. (1998). Differential effects on cognitive functioning in 9- to 12-year olds prenatally exposed to cigarettes and marihuana. *Neurotoxicology and Teratology, 20*, 293-306.
- Fry, C. L., Ritter, A., Baldwin, S., Bowen, K. J., Gardiner, P., Holt, T., et al. (2006). Paying research participants: a study of current practices in Australia. *Journal of Medical Ethics, 31*, 542-547.
- Fry, C. L., Treloar, C., & Maher, L. (2005). Ethical challenges and responses in harm reduction research: promoting applied communitarian ethics. *Drug and Alcohol Review, 24*, 449-459.
- Fry, S., Dawe, S., Harnett, P., Kowalenko, S., & Harlen, M. (2008). Supporting the families of young people with problematic drug use. Canberra: Australian National Council on Drugs.
- Gardner, E. L. (1992). Cannabinoid interaction with brain reward systems. In L. Murphy & A. Bartke (Eds.), *Marijuana/cannabinoids: neurobiology and neurophysiology* (pp. 275-336). Florida: CRC Press.
- Gardner, E. L. (2005). Endocannabinoid signaling system and brain reward: emphasis on dopamine. *Pharmacology Biochemistry and Behavior, 81*, 263-284.
- Garmezy, N. (1985). Stress resilient children: the search for protective factors. In J. Stevenson (Ed.), *Recent research in developmental psychopathology, Journal of Child Psychology and Psychiatry Book Supplement 4* (pp. 213-233). Oxford: Pergamon Press.

- Gawin, F. H., & Ellinwood, E. H., Jr. (1988). Cocaine and other stimulants. *New England Journal of Medicine*, 318, 1173-1182.
- Georgotas, A., & Zeidenberg, P. (1979). Observations on the effects of 4 weeks of heavy marijuana smoking on group interaction and individual behavior. *Comprehensive Psychiatry*, 20, 427-.
- Gergen, K. (1999). *An invitation to social construction*. London: Sage.
- Gergen, K. (2001). Psychological science in a postmodern context. *American Psychologist*, 56, 803-813.
- Gfroerer, J. (1987). Correlation between drug use by teenagers and drug use by older family members. *American Journal of Drug and Alcohol Abuse*, 13, 95-108.
- Giacomini, M. K., & Cook, D. J. (2000). Users' guides to the medical literature: XXIII. Qualitative research in health care. A. Are the results of the study valid? *Journal of the American Medical Association*, 284, 357-362.
- Gieringer, D. (1996). Marijuana Water Pipe and Vaporizer Study. *Newsletter of the Multidisciplinary Association for Psychedelic Studies*, 6. Retrieved from <http://www.ukcia.org/research/pipes.php>
- Gieringer, D. H. (2001). Cannabis "vaporization": a promising strategy for smoke harm reduction. *Journal of Cannabis Therapeutics*, 1, 153-170.
- Gieringer, D. H. (2004). Cannabis "vaporizer" combines efficient delivery of THC with effective suppression of prolytic compounds. *Journal of Cannabis Therapeutics*, 4, 7-.
- Gill, A. M., & Michaels, R. J. (1992). Does drug use lower wages? *Industrial and Labor Relations Review*, 45, 419-434.
- Glantz, M. D., Weinberg, N. Z., Miner, L. L., & Colliver, J. D. (1999). The etiology of drug abuse: mapping the paths. In M. D. Glantz & C. R. Hartel (Eds.), *Drug abuse: origins and interventions* (pp. 3-45). Washington, DC: American Psychological Association.
- Glynn, R. J., LoCastro, J. S., Hermos, J. A., & Bosse, R. (1983). Social contexts and motives in drinking men. *Journal of Studies on Alcohol*, 44, 1011-1025.
- Goldschmidt, L., Day, N. L., & Richardson, G. A. (2000). Effects of prenatal marijuana exposure on child behavior problems at age 10. *Neurotoxicology and Teratology*, 22, 325-336.
- Gonzalez, S., Cebeira, M., & Fernandez-Ruiz, J. (2005). Cannabinoid tolerance and dependence: a review of studies in laboratory animals. *Pharmacology, Biochemistry and Behavior*, 81, 300-318.
- Goode, E. (1970). *The marijuana smokers*. New York: Basic Books.
- Goode, E. (1972). Marijuana and crime *Marihuana: a signal of misunderstanding, Appendix 1* (pp. 447-453). Washington, DC: US Government Printing Office.
- Gorin, S. (2004). *Understanding what children say. Children's experiences of domestic violence, parental substance misuse and parental health problems*. London: National Children's Bureau.
- Gossop, M. (2007). *Living with drugs* (6th ed.). Hampshire: Ashgate.
- Greco-Vigorito, C., Drucker, P. M., Moore-Russell, M., & Avaltroni, J. (1996). Affective symptoms in young children of substance abusers correlate with parental distress. *Psychological Reports*, 79, 547-552.

- Greenberg, I., Mendelson, J. H., Kuehnle, J. C., Mello, N., & Babor, T. F. (1976). Psychiatric and behavioral observations of casual and heavy marijuana users. *Annals of the New York Academy of Sciences*, 282, 72-84. doi: 10.1111/j.1749-6632.1976.tb49887.x
- Griffith, D. R. (1992). Prenatal exposure to cocaine and other drugs: developmental and educational prognoses. *Phi Delta Kappan*, 74, 30-34.
- Griffith, D. R., Azuma, S. D., & Chasnoff, I. J. (1994). Three-year outcome of children exposed prenatally to drugs. *Journal of the American Academy of Child and Adolescent Psychiatry*, 33, 20-27.
- Grinspoon, L., & Bakalar, J. B. (1993). *Marijuana: the forbidden medicine*. New Haven: Yale University Press.
- Grinspoon, L., Bakalar, J. B., & Russo, E. (2005). Marijuana: clinical aspects. In J. Lowinson, P. Ruiz, R. Millman & J. Langrod (Eds.), *Substance abuse: a comprehensive textbook* (4th ed., pp. 263-276). New York: Lippincott Williams & Wilkins.
- Gruenert, S., Ratnam, S., & Tsantefsi, M. (2004). The Nobody's Clients Project: identifying and addressing the needs of children with substance dependent parents. Melbourne: Odyssey Institute of Studies.
- Hagan, T. A. (1988). A retrospective search for the etiology of drug abuse: a background comparison of a drug-addicted population of women and a control group of non-addicted women. In L. Harris (Ed.), *Problems of drug dependence, 1987* (pp. 154-261). Maryland: National Institute on Drug Abuse.
- Hall, W. (2006a). Dissecting the causal anatomy of the link between cannabis and other illicit drugs. *Addiction*, 101, 472-473.
- Hall, W. (2006b). Is cannabis use psychotogenic? *The Lancet*, 367, 193-195.
- Hall, W. (2006c). The mental health risks of adolescent cannabis use. *PLoS Medicine*, 3, e39.
- Hall, W. (2009). The adverse health effects of cannabis use: what are they, and what are their implications for policy? *International Journal of Drug Policy*, in press.
- Hall, W., & Degenhardt, L. (2000). Cannabis use and psychosis: a review of clinical and epidemiological evidence. *Australian and New Zealand Journal of Psychiatry*, 34, 26-34.
- Hall, W., & Degenhardt, L. (2006). What are the policy implications of the evidence on cannabis and psychosis? *Canadian Journal of Psychiatry*, 51, 566-574.
- Hall, W., Degenhardt, L., & Lynskey, M. (2001). The health and psychological effects of cannabis, (2nd ed.). *Monograph Series No. 44* Retrieved 14 January, 2009, from <http://www.health.gov.au/internet/main/publishing.nsf/Content/phd-drugs-mono44-cnt.htm>
- Hall, W., & Hando, J. (1994). Route of administration and adverse effects of amphetamine use among young adults in Sydney, Australia. *Drug and Alcohol Review*, 13, 277-284.
- Hall, W., Hando, J., Darke, S., & Ross, J. (1996). Psychological morbidity and route of administration among amphetamine users in Sydney, Australia. *Addiction*, 91, 81-87.
- Hall, W., & Lynskey, M. (2005). Is cannabis a gateway drug? Testing hypotheses about the relationship between cannabis use and the use of other illicit drugs. *Drug and Alcohol Review*, 24, 39-48.
- Hall, W., & Solowij, N. (1997). Long-term cannabis use and mental health. *British Journal of Psychiatry*, 171, 107-108.

- Hall, W., & Solowij, N. (1998). The adverse effects of cannabis. *Lancet*, 352, 1611-1616.
- Hall, W., Solowij, N., & Lemon, J. (1994). *Health and psychological consequences of cannabis use*. Canberra: Australian Government Publishing Service.
- Hall, W., & Swift, W. (2000). The THC content of cannabis in Australia: evidence and implications. *Australian and New Zealand Journal of Public Health*, 24, 503-508.
- Hampton, R., Senatore, V., & Guillotta, T. (2002). *Substance abuse, family violence and child welfare: bridging perspectives*. California: Sage
- Haney, M., Ward, A. S., Comer, S. D., Foltin, R. W., & Fischman, M. W. (1999). Abstinence symptoms following smoked marijuana in humans. *Psychopharmacology*, 141, 395-404.
- Hans, S. L. (1989). Developmental consequences of prenatal exposure to methadone. *Annals of the New York Academy of Sciences*, 562, 195-207.
- Hans, S. L. (1992). Maternal opioid drug use and child development. In I. Zagon & T. Slotkin (Eds.), *Maternal substance abuse and the developing nervous system* (pp. 177-213). New York: Academic Press.
- Hans, S. L. (1996). Prenatal drug exposure: behavioral functioning in late childhood and adolescence. In C. Wetherington, V. L. Smeriglio & L. Finnegan (Eds.), *Behavioral studies of drug-exposed offspring: methodological issues in human and animal research* (pp. 261-). Maryland: National Institutes of Health.
- Hans, S. L. (2004). When mothers use drugs. In M. Gopfert, J. Webster & M. Seeman (Eds.), *Parental psychiatric disorder: distressed parents and their families*: Cambridge University Press.
- Hans, S. L., Bernstein, V. J., & Henson, L. G. (1999). The role of psychopathology in the parenting of drug-dependent women. *Development and Psychopathology*, 11, 957-977.
- Hansen, W. B., Graham, J. W., Sobel, J. L., Shelton, D. R., Flay, B. R., & Johnson, C. A. (1987). The consistency of peer and parent influences on tobacco, alcohol, and marijuana use among young adolescents. *Journal of Behavioral Medicine*, 10, 559-579.
- Harbin, F., & Murphy, M. (Eds.). (2000). *Substance misuse and child care. How to understand, assist and intervene when drugs affect parenting*. Dorset, UK: Russell House.
- Harrington, D., Dubowitz, H., Black, M. M., & Binder, A. (1995). Maternal substance use and neglectful parenting: relations with children's development. *Journal of Clinical Child Psychology*, 24, 258-263.
- Hathaway, A. D., Callaghan, R. C., MacDonald, S., & Erickson, P. G. (2009). Cannabis dependence as a primary drug use-related problem: the case for harm reduction-oriented treatment options. *Substance Use and Misuse*, 44, 990-1008.
- Hawkins, J. D., Catalano, R. F., & Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: implications for substance abuse prevention. *Psychological Bulletin*, 112, 64-105.
- Hawley, T., Halle, T., Drasin, R., & Thomas, N. (1995). Children of addicted mothers: effects of the "crack" epidemic on the caregiving environment and the development of preschoolers. *American Journal of Orthopsychiatry*, 65, 364-379.
- Hayes, J., Dreher, M., & Nugent, K. (1988). Newborn outcomes with maternal use in Jamaican women. *Pediatric Nursing*, 14, 107-110.

- Hayes, L., Smart, D., Toumbourou, J., & Sanson, A. (2004). Parenting influences on adolescent alcohol use. *Research report no.10* Retrieved 8 May, 2006, from <http://www.aifs.gov.au/institute/pubs/resreport10/main.html>
- Hechtman, L., Weiss, G., & Perlman, T. (1984). Hyperactives as young adults: past and current substance abuse and antisocial behavior. *American Journal of Orthopsychiatry*, 54, 415-425.
- Hendin, H. (1987). *Living high: daily marijuana use among adults*: Human Sciences Press.
- Hendin, H., Pollinger, A., Ulman, R., & Carr, A. C. (1981). Adolescent marijuana users and their families. *NIDA Research Monograph 40*. Maryland: National Institute on Drug Abuse.
- Henquet, C., Rosa, A., Delespaul, P., Papiol, S., Fananas, L., van Os, J., et al. (2009). COMT Val¹⁵⁸ Met moderation of cannabis-induced psychosis: a momentary assessment study of 'switching on' hallucinations in the flow of daily life. *Acta Psychiatrica Scandinavica*, 119, 156-160.
- Henry, J. A., Oldfield, W. L. G., & Kon, O. M. (2003). Comparing cannabis with tobacco: smoking cannabis, like smoking tobacco, can be a major public health hazard. *British Medical Journal*, 326, 942-943.
- Henwood, K., & Pidgeon, N. (1995). Grounded theory and psychological research. *The Psychologist*, 8, 115-118.
- Hochman, J. S., & Brill, N. Q. (1973). Chronic marijuana use and psychosocial adaptation. *American Journal of Psychiatry*, 130, 132-140.
- Hoff-Ginsburg, E., & Shatz, M. (1982). Linguistic input and the child's acquisition of language. *Psychological Bulletin*, 92, 3-26.
- Hogan, D., & Higgins, L. (2001). When parents use drugs: key findings from a study of children in the care of drug-using parents Retrieved 6 February, 2007, from <http://www.ndc.hrb.ie>
- Hogan, D. M. (1997). The social and psychological needs of children of drug users Retrieved 6 February, 2007, from <http://www.ndc.hrb.ie>
- Hogan, D. M. (1998). Annotation: The psychological development and welfare of children of opiate and cocaine users: review and research needs. [review]. *Journal of Child Psychology and Psychiatry*, 39, 609-620.
- Hogan, T. M., Myers, B. J., & Elswick, R. K., Jr. (2006). Child abuse potential among mothers of substance-exposed and nonexposed infants and toddlers. *Child Abuse and Neglect*, 30-, 145-156.
- Hollister, L. E. (1986). Health aspects of cannabis. *Pharmacological Reviews*, 38, 1-20.
- Holt, M. (2008). Pleasure and drugs. *International Journal of Drug Policy*, 19, 349-352.
- Homish, G. G., Leonard, K. E., & Cornelius, J. R. (2007). Predictors of marijuana use among married couples: the influence of one's spouse. *Drug and Alcohol Dependence*, 91, 121-128.
- Hopfer, C. J., Stallings, M. C., Hewitt, J. K., & Crowley, T. J. (2003). Family transmission of marijuana use, abuse, and dependence. *Journal of American Academy of Adolescent Psychiatry*, 42, 834-841.
- Horgan, J. (2011). Parental substance misuse: addressing its impact on children. Dublin: National Advisory Committee on Drugs.

- House of Representatives Standing Committee on Family and Human Services. (2007). *The winnable war on drugs. The impact of illicit drug use on families*. Canberra: Commonwealth of Australia. Retrieved from <http://trove.nla.gov.au/work/8314468?selectedversion=NBD42222551>.
- Howard, S., Dryden, J., & Johnson, B. (1999). Childhood resilience: review and critique of the literature. *Oxford Review of Education*, 25, 307-323.
- Hughes, J. R., Peters, E. N., Callas, P. W., Budney, A. J., & Livingston, A. E. (2008). Attempts to stop or reduce marijuana use in non-treatment seekers. *Drug and Alcohol Dependence*, 97, 180-184.
- Hurt, H., Brodsky, N. L., Betancourt, L., Braitman, L. E., Malmud, E., & Giannetta, J. (1995). Cocaine-exposed children: follow up through 30 months. *Journal of Developmental and Behavioral Pediatrics*, 16, 29-35.
- Hurt, H., Malmud, E., Betancourt, L., Brodsky, N. L., & Giannetta, J. (1997). A prospective evaluation of early language development in children with in utero cocaine-exposure and control subjects. *Journal of Pediatrics*, 130, 310-312.
- Huston, A. C., McLoyd, V. C., & Coll, C. G. (1994). Children and poverty: issues in contemporary research. *Child Development*, 65, 275-282.
- Hutchings, D. E., & Zmitrovich, A. C. (1995). Methadone during pregnancy: a brief review of clinical outcomes and a new animal model. In M. Lewis & M. Bendersky (Eds.), *Mothers, babies, and cocaine: The role of toxins in development* (pp. 57-66). New Jersey: Lawrence Erlbaum Associates.
- Inciardi, J. A., Lockwood, D., & Pottieger, A. E. (1993). Women and drugs: reviewing the issues *Women and crack-cocaine* (pp. 17-47). New York: Macmillan.
- Inciardi, J. A., Surratt, H. L., & Saum, C. A. (1997). *Cocaine-exposed infants: Social, legal and public health issues*. London: Sage.
- Iwaniec, D., & Sneddon, H. (2001). Attachment styles in adults who failed to thrive as children: outcomes of a 20-year follow-up study of factors influencing maintenance or change in attachment style. *British Journal of Social Work*, 31, 179-195.
- Jacobson, S. W., Chiodo, L. M., Sokol, R. J., & Jacobson, J. L. (2002). Validity of maternal report of prenatal alcohol, cocaine, and smoking in relation to neurobehavioral outcome. *Pediatrics*, 109, 815-825. doi: 10.1542/peds.109.5.815
- Jaudes, P. K., Ekwo, E., & van Voorhis, J. (1995). Association of drug abuse and child abuse. *Child Abuse and Neglect*, 19, 1065-1075.
- Jessop, D. J. (1981). Family relationships as viewed by parents and adolescents: a specification. *Journal of Marriage and the Family*, 43, 95-107.
- Jessor, R., Chase, J. A., & Donovan, J. E. (1980). Psychosocial correlates of marijuana use and problem drinking in a national sample of adolescents. *American Journal of Public Health*, 70, 604-613.
- Jockers-Scherubl, M. C., Matthies, U., Danker-Hopfe, H., Lang, U. E., Mahlberg, R., & Hellweg, R. (2003). Chronic cannabis abuse raises nerve growth factor serum concentrations in drug-naïve schizophrenic patients. *Journal of Psychopharmacology*, 17, 439-445.
- Johnson, G., Schoutz, F., & Locke, T. (1984). Relationships between adolescent drug use and parental drug behaviors. *Adolescence*, 19, 295-299.

- Johnson, H. L., Glassman, M. B., Fiks, K. B., & Rosen, T. S. (1990). Resilient children: individual differences in developmental outcome of children born to drug abusers. *The Journal of Genetic Psychology, 151*, 523-539.
- Johnson, J. L. (1991). Forgotten no longer: an overview of research on children of chemically dependent parents. In T. Rivinus (Ed.), *Children of chemically dependent parents* (pp. 29-54). New York: Brunner/Mazel.
- Johnson, J. L., Boney, T. Y., & Brown, B. S. (1991). Evidence of depressive symptoms in children of substance abusers. *International Journal of the Addictions, 25*, 465-479.
- Johnson, J. L., & Leff, M. (1999). Children of substance abusers: Overview of research findings. *Pediatrics, 103*, 1085-1099.
- Johnson, V. (1988). A longitudinal assessment of predominant patterns of drug use among adolescents and young adults. In G. Chesher, P. Consroe & R. Musty (Eds.), *Marijuana: an international research report. Proceedings of the Melbourne symposium on cannabis 2-4 September 1987*. (pp. 173-182). Canberra: Australian Government Publishing Service.
- Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (2001). Monitoring the Future National Results on Adolescent Drug use: Preview of Key Findings. Maryland: National Institute on Drug Abuse.
- Johnston, L. D., O'Malley, P. M., & Eveland, L. K. (1978). Drugs and delinquency: a search for causal connections. In D. B. Kandel (Ed.), *Longitudinal research on drug use: empirical findings and methodological issues* (pp. 137-156). New York: John Wiley and Sons.
- Jones, C., Freeman, K., & Weatherburn, D. (2003). Driving under the influence of cannabis, in a New South Wales rural area. *Crime and Justice Bulletin, 75*. Retrieved from
- Jones, C. L. (1995). Foreword. In M. Lewis & M. Bendersky (Eds.), *Mothers, babies, and cocaine: The role of toxins in development* (pp. ix-x). New Jersey: Lawrence Erlbaum Associates.
- Jones, K. L., & Smith, D. W. (1973). Recognition of the fetal alcohol syndrome in early infancy. *Lancet, 2*, 999-1001.
- Jones, R. T., & Benowitz, N. (1976). The 30-day trip: clinical studies of cannabis tolerance and dependence. In M. C. Braude & S. Szara (Eds.), *Pharmacology of marihuana* (pp. 627-642). New York: Raven Press.
- Jones, R. T., Benowitz, N., & Bachman, J. (1976). Clinical studies of cannabis tolerance and dependence. *Annals of the New York Academy of Sciences, 282*, 221-239.
- Joy, J. E., Watson, S. J., & Benson, J. A., Jr. (1999). Marijuana and Medicine: Assessing the science base. Retrieved from books.nap.edu/catalog/6376.html
- Jurich, A., Polson, C., Jurich, J., & Bates, R. (1985). Family factors in the lives of drug users and drug abusers. *Adolescence, 20*, 143-159.
- Jurich et al. (1985). Family factors in the lives of drug users and abusers. *Adolescence, 20*, 143-159.
- Kaestner, R. (1991). The effect of drug use on the wages of young adults. *Journal of Labor Economics, 9*, 381-412.
- Kaestner, R. (1994a). The effect of illicit drug use on the labor supply of young adults. *The Journal of Human Resources, 29*, 126-155.
- Kaestner, R. (1994b). New estimates of the effect of marijuana and cocaine use on wages. *Industrial and Labor Relations Review, 47*, 454-470.

- Kalechstein, A. D., Newton, T. F., Longshore, D., Anglin, M. D., van Gorp, W. G., & Gawin, F. H. (2000). Psychiatric comorbidity of methamphetamine dependence in a forensic sample. *Journal of Neuropsychiatry and Clinical Neurosciences*, 12, 480-484.
- Kall, K. (1997). Amphetamine abuse in Sweden. In H. Klee (Ed.), *Amphetamine misuse: international perspectives on current trends* (pp. 215-233). Amsterdam: Harwood Academic Publishers.
- Kaltenbach, K. (1994). Effects of in-utero opiate exposure: new paradigms for old questions. *Drug and Alcohol Dependence*, 36, 83-87.
- Kaltenbach, K., & Finnegan, L. (1984). Developmental outcome of children born to methadone maintained women: a review of longitudinal studies. *Neurobehavioral Toxicology and Teratology*, 6, 271-275.
- Kaltenbach, K., & Finnegan, L. P. (1986a). Cognitive status of pre-school children exposed to methadone in-utero (Abstract). *Pediatric Research*, 20, 162A.
- Kaltenbach, K., & Finnegan, L. P. (1986b). Developmental outcome of infants exposed to methadone in utero: a longitudinal study (Abstract). *Pediatric Research*, 20, 162A.
- Kaltenbach, K., & Finnegan, L. P. (1992a). Methadone maintenance during pregnancy: implications for perinatal and developmental outcome. In T. Sonderegger (Ed.), *Perinatal substance abuse: research findings and clinical implications* (pp. 239-253). Maryland: Johns Hopkins University Press.
- Kaltenbach, K. A. (1996). Exposure to opiates: behavioral outcomes in preschool and school-age children. In C. Wetherington, V. L. Smeriglio & L. Finnegan (Eds.), *Behavioral studies of drug-exposed offspring: methodological issues in human and animal research. Monograph Series No. 164* (pp. 230-241). Maryland: National Institute on Drug Abuse.
- Kaltenbach, K. A., & Finnegan, L. P. (1992b). Studies of prenatal drug exposure and environmental research issues: the benefits of integrating research within a treatment program. In M. M. Kilbey & K. Asghar (Eds.), *Methodological issues in epidemiological, prevention, and treatment research on drug-exposed women and their children, NIDA Research Monograph No. 117* (pp. 267-270). Maryland: National Institute on Drug Abuse.
- Kamieniecki, G., Vincent, N., Allsop, S., & Lintzeris, N. (1998). Models of intervention and care for psychostimulant users, 1st ed. National Drug Strategy Monograph Series, No. 32 Retrieved 28 March, 2008, from [http://www.health.gov.au/internet/wcms/publishing.nsf/Content/phd-drugs-mono32-cnt.htm/\\$FILE/mono32.pdf](http://www.health.gov.au/internet/wcms/publishing.nsf/Content/phd-drugs-mono32-cnt.htm/$FILE/mono32.pdf)
- Kandall, S. R. (1996). *Substance and shadow: Women and addiction in the United States*. Massachusetts: Harvard University Press.
- Kandel, D. (1975). Stages in adolescent involvement in drug use. *Science*, 190, 912-914.
- Kandel, D. (1985). On processes of peer influences in adolescent drug use: a developmental perspective. *Advances in Alcohol and Substance Abuse*, 4, 139-163.
- Kandel, D. (1990). Parenting styles, drug use and children's adjustment in families of young adults. *Journal of Marriage and the Family*, 52, 183-196.
- Kandel, D., Chen, K., & Gill, A. (1995). The impact of drug use on earnings: a life-span perspective. *Social Forces*, 74, 243-270.
- Kandel, D. B. (1988). Issues of sequencing of adolescent drug use and other problem behaviors *Drugs and Society* (Vol. 3, pp. 55-76).

- Kandel, D. B., & Chen, K. (2000). Types of marijuana users by longitudinal course. *Journal of Studies on Alcohol*, 61, 367-378.
- Kandel, D. B., & Davies, M. (1990). Labor force experiences of a national sample of young adult men. *Youth and Society*, 21, 411-445.
- Kandel, D. B., & Davies, M. (1992). Progression to regular marijuana involvement: phenomenology and risk factors for near daily use. In M. Glantz & R. Pickens (Eds.), *Vulnerability to drug abuse* (pp. 211-254). Washington, DC: American Psychological Association.
- Kandel, D. B., & Davies, M. (1996). High school students who use crack and other drugs. *General Archives of Psychiatry*, 53, 71-80.
- Kandel, D. B., & Logan, J. A. (1984). Patterns of drug use from adolescence to young adulthood: 1. Periods of risk for initiation, continued use and discontinuation. *American Journal of Public Health*, 74, 660-666.
- Kandel, D. B., & Raveis, V. H. (1989). Cessation of illicit drug use in young adulthood. *Archives of General Psychiatry*, 46, 109-116.
- Kandel, D. B., Yamaguchi, K., & Chen, K. (1992). Stages of progression in drug involvement from adolescence to adulthood: further evidence for the gateway theory. *Journal of Studies on Alcohol*, 53, 447-457.
- Kandel, D. B., Yamaguchi, K., & Klein, L. C. (2006). Testing the gateway hypothesis. *Addiction*, 101, 470-472.
- Kandel, D. P., & Yamaguchi, K. (1993). From beer to crack: developmental patterns of drug involvement. *American Journal of Public Health*, 83, 851-855.
- Kaplan, H. B., Martin, S. S., Johnson, R. J., & Robbins, C. A. (1986). Escalation of marijuana use: application of a general theory of deviant behavior. *Journal of Health and Social Behavior*, 27, 44-61.
- Kaplan, P. S. (1991). *A child's odyssey: child and adolescent development* (2nd ed.). New York: West Publishing.
- Kearney, M. H., Murphy, S., & Rosenbaum, M. (1994). Mothering on crack cocaine: a grounded theory analysis. *Social Science and Medicine*, 38, 351-361.
- Kelly, E., Darke, S., & Ross, J. (2004). A review of drug use and driving: epidemiology, impairment, risk factors and risk perceptions. *Drug and Alcohol Review*, 23, 319-344. doi: 10.1080/09595230412331289482
- Kemmesies, U. (2000). How to reach the unknown: the snowball sampling technique. In J. Fountain (Ed.), *Scientific Monograph Series No. 4* (pp. 265-271). Luxembourg: European Monitoring Centre for Drugs and Drug Addiction (EMCDDA).
- Kendler, K. S., & Prescott, C. A. (1998). Cannabis use, abuse, and dependence in a population-based sample of female twins. *American Journal of Psychiatry*, 155, 1016-1022.
- Khantzian, E. (1985). The self-medication hypothesis of addictive disorders: focus on heroin and cocaine dependence. *American Journal of Psychiatry*, 142, 1259-1264.
- Kilpatrick, D. G., Resnick, H. S., Saunders, B. E., & Best, C. L. (1998). Victimization, posttraumatic stress disorder, and substance use and abuse among women. In C. L. Wetherington & A. B. Roman (Eds.), *Drug addiction research and the health of women* (pp. 285-307). Maryland: National Institute on Drug Abuse.

- King, K. A., Vidourek, R. A., & Wagner, D. (2003). Effect of parent drug use and parent-child time spent together on adolescent involvement in alcohol, tobacco, and other drugs. *Journal of Marriage and the Family*, 3, 171-176.
- Klee, H. (1998). Drug using parents: analysing the stereotypes. *The International Journal of Drug Policy*, 9, 437-448.
- Klee, H., Jackson, M., & Lewis, S. (2001). *Drug misuse and motherhood*. London: Routledge.
- Kleinman, P. H., Wish, E. D., Deren, S., Rainone, G., & Morehouse, E. (1988). Daily marijuana use and problem behaviors among adolescents. *International Journal of the Addictions*, 23, 87-107.
- Kolar, A. F., Brown, B. S., Haertzen, C. A., & Michaelson, B. S. (1994). Children of substance abusers: the life experiences of children of opiate addicts in methadone maintenance. *American Journal of Drug and Alcohol Abuse*, 20, 159-171.
- Koren, G., Graham, K., Shear, H., & Einarson, T. (1989). Bias against the null hypothesis: the reproductive hazards of cocaine. *The Lancet*, 2, 1440-1442.
- Kostecky, K. L. (2005). Parental attachment, academic achievement, life events and their relationship to alcohol and drug use during adolescence. *Journal of Adolescence*, 28, 665-669.
- Kouri, E. M., Pope, H. G., Jr, & Lukas, S. E. (1999). Changes in aggressive behavior following discontinuation from long-term marijuana use. *Psychopharmacology*, 143, 302-308.
- Kramer, J., & Loney, J. (1982). Childhood hyperactivity and substance abuse: a review of the literature. *Advances in Learning and Behavioral Disabilities*, 1, 225-259.
- Kroll, B. (2004). Living with an elephant: growing up with parental substance misuse. *Child and Family Social Work*, 9, 129-140.
- Kroll, B., & Taylor, A. (2003). *Parental substance misuse and child welfare*. London: Jessica Kingsley.
- Kuhn, C., Swartzwelder, S., & Wilson, W. (2008). *Buzzed. The straight facts about the most used and abused drugs from alcohol to ecstasy* (3rd ed.). New York: W. W. Norton.
- Kumpfer, K. L. (1987). Special populations: etiology and prevention of vulnerability to chemical dependency in children of substance abusers. In B. Brown & A. Mills (Eds.), *Youth at high risk for substance abuse* (pp. 1-71). Maryland: National Institute on Drug Abuse.
- Kumpfer, K. L., & DeMarsh, J. (1986). Family environmental and genetic influences on children's future chemical dependency. *Journal of Children in Contemporary Society*, 18, 49-91.
- Kumpfer, K. L., Olds, D. L., Alexander, J. F., Zucker, R. A., & Gary, L. E. (1998). Family etiology of youth problems. *Drug abuse prevention through family interventions (NIDA Research Monograph 177)*. Rockville, MD: National Institute on Drug Abuse, 42-77.
- Kuntsche, E., Knibbe, R., Gmel, G., & Engels, R. (2006). Who drinks and why? A review of socio-demographic, personality, and contextual issues behind the drinking motives in young people. *Addictive Behaviors*, 31, 1844-1857.
- Kwong, A., Howard, J., & Arcuri, A. (2010). Self-managed change from problematic cannabis use. *Bulletin 12*. Retrieved from <http://ncpic.org.au/ncpic/publications/bulletins/article/bulletin-12-self-managed-change-from-problematic-cannabis-use>
- Labouvie, E. (1987). Relation of personality to adolescent alcohol and drug use: a coping perspective. *Pediatrician*, 14, 19-24.

- Labouvie, E., Pandina, R., White, H., & Johnson, V. (1990). Risk factors of adolescent drug use: an affect-based interpretation. *Journal of Substance Abuse, 2*, 265-285.
- Ladwig, G., & Anderson, M. (1989). Substance abuse in women: relationship between chemical dependency of women and past reports of physical and/or sexual abuse. *International Journal of the Addictions, 24*, 655-673.
- Langridge, D. (2007). *Phenomenological Psychology*. Essex: Pearson Education.
- Large, M., Sharma, S., Compton, M. T., Slade, T., & Nielsson, O. (2011). Cannabis use and earlier onset of psychosis. *Archives of General Psychiatry, 68*, 555-561.
- Larsson, G. (1980). The amphetamine addicted mother and her child. *Acta Paediatrica Scandinavica, 278 (suppl)*, 6.
- Lee, C. M., Neighbors, C., & Woods, B. A. (2007). Marijuana motives: young adults' reasons for using marijuana. *Addictive Behaviors, 32*, 1384-1394.
- Leech, S. L., Richardson, G. A., Goldschmidt, L., & Day, N. L. (1999). Prenatal substance exposure: effects on attention and impulsivity of 6-year-olds. *Neurotoxicology and Teratology, 21*, 109-118.
- Leek, L., Seneque, D., & Ward, K. (2004). Parental drug and alcohol use as a contributing factor in care and protection applications 2003. . Perth, Western Australia: Department for Community Development.
- Leek, L., Seneque, D., & Ward, K. (2007). Parental drug and alcohol use as a contributing factor in care and protection applications 2003: a follow-up study. Perth, Western Australia: Department for Community Development.
- Lemberger, L., Martz, R., Rodda, B., Forney, R., & Rowe, H. (1973). Comparative pharmacology of Δ^9 -tetrahydrocannabinol and its metabolite, 11-OH- Δ^9 -tetrahydrocannabinol. *Journal of Clinical Investigations, 54*, 2411-2417.
- Lende, D. H., Leonard, T., Sterk, C. E., & Elifson, K. (2007). Functional methamphetamine use: the insider's perspective. *Addiction Research and Theory, 15*, 465-477.
- Lenton, S. (2005). Evaluation of the Western Australian Cannabis Infringement Notice scheme-an overview. *Drug and Alcohol Review, 24*, 297-299.
- Lenton, S., & Allsop, S. (2010). A tale of CIN—the Cannabis Infringement Notice scheme in Western Australia. *Addiction, 105*, 808-816. doi: 10.1111/j.1360-0443.2010.02913.x
- Lenton, S., Ferrante, A., & Loh, N. (1996). Dope busts in the West: minor cannabis offences in the Western Australian criminal justice system. *Drug & Alcohol Review, 15*, 335-341.
- Lenton, S., & Single, E. (1998). The definition of harm reduction. *Drug and Alcohol Review, 17*, 213-219.
- Leshner, A. I. (1998). Foreword. Cocaine: effects on the developing brain. *Annals of the New York Academy of Science, 846*, xv-xvii.
- Lester, B., LaGasse, L., & Bigsby, R. (1998). Prenatal cocaine exposure and child development: what do we know and what do we do? *Seminars in speech and language, 19*, 123-146.
- Lester, B. M., & Dreher, M. (1989). Effects of marijuana use during pregnancy on newborn cry. *Child Development, 60*, 765-771.

- Lester, B. M., Frejer, K., & LaGasse, L. (1995). Prenatal cocaine exposure and child outcome: what do we really know? In M. Lewis & M. Bendersky (Eds.), *Mothers, babies, and cocaine: The role of toxins in development* (pp. 19-39). New Jersey: Lawrence Erlbaum Associates.
- Lester, B. M., Tronick, E. Z., LaGasse, L. L., Seifer, R., Bauer, C. R., Shankaran, S., et al. (2002). The maternal lifestyle study (MLS): effects of substance exposure during pregnancy on one-month neurodevelopmental outcome. *Pediatrics*, *110*, 1182-1192.
- Lewis, M., & Bendersky, M. (Eds.). (1995). *Mothers, babies, and cocaine: The role of toxins in development*. New Jersey: Erlbaum.
- Lifschitz, M. H., & Wilson, G. S. (1991). Patterns of growth and development in narcotic-exposed children. In M. Kilbey & K. Asghar (Eds.), *Methodological issues in controlled studies on effects of prenatal exposure to drug abuse, NIDA Research Monograph No. 114* (pp. 323-339). Maryland: National Institute on Drug Abuse.
- Lifschitz, M. H., Wilson, G. S., Smith, E., & Desmond, M. M. (1983). Fetal and postnatal growth of children born to narcotic-dependent women. *The Journal of Pediatrics*, *102*, 686-691.
- Lifschitz, M. H., Wilson, G. S., Smith, E. O., & Desmond, M. M. (1985). Factors affecting head growth and intellectual function in children of drug addicts. *Pediatrics*, *75*, 269-274.
- Lineberry, T. W., & Bostwick, J. M. (2006). Methamphetamine abuse: a perfect storm of complications. *Mayo Clinic Proceedings*, *81*, 77-84.
- Lintzeris, N., & Spry-Bailey, P. (1998). Harm reduction with problem users. In M. Hamilton, A. Kellehear & G. Rumbold (Eds.), *Drug use in Australia: A harm minimisation approach* (pp. 231-245). Melbourne: Oxford University Press.
- Logue, M. E., & Rivinus, T. M. (1991). Young children of substance-abusing parents: a developmental view of risk and resiliency. In T. Rivinus (Ed.), *Children of chemically dependent parents* (pp. 55-73). New York: Brunner/Mazel.
- Loney, J. (1988). Substance abuse in adolescents: diagnostic issues derived from studies of attention deficit disorder with hyperactivity. In E. Rahdert & J. Grabowski (Eds.), *Adolescent drug abuse: analysis of treatment research* (pp. 19-26). Maryland: National Institute on Drug Abuse.
- Long, N., & Forehand, R. (1987). The effects of parental divorce and parental conflict on children: an overview. *Developmental and Behavioral Pediatrics*, *8*, 292-296.
- Lovejoy, M. C., Graczyk, P. A., O'Hare, E., & Neuman, G. (2000). Maternal depression and parenting behavior: a meta-analytic review. *Clinical Psychology Review*, *20*, 561-592.
- Loxley, W., Toumbourou, J. W., Stockwell, T., Haines, B., Scott, K., Godfrey, C., et al. (2004). The Prevention of substance use, risk and harm in Australia: a review of the evidence Retrieved 18 September, 2006, from [http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-pubhlth-publicat-document-mono_prevention-cnt.htm/\\$FILE/mono_prevention.pdf](http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-pubhlth-publicat-document-mono_prevention-cnt.htm/$FILE/mono_prevention.pdf)
- Lundqvist, T. (1995). Specific thought patterns in chronic cannabis smokers observed during treatment. *Life Sciences*, *56*, 2141-2144.
- Luoma, I., Tamminen, T., Kaukonen, P., Purura, K., Salmelin, R., & Almqvist, F. (2001). Longitudinal study of maternal depressive symptoms and child well-being. *Journal of the American Academy of Child and Adolescent Psychiatry*, *40*, 1367-1374.
- Luthar, S., D'Avanzo, K., & Hites, S. (2003). Maternal drug abuse versus other psychological disturbances: risks and resilience among children. In S. S. Luthar (Ed.), *Resilience and*

- vulnerability: adaptation in the context of childhood adversities.* (pp. 104-129). Cambridge: Cambridge University Press.
- Luthar, S., Merikangas, K., & Rounsaville, B. (1993). Parental psychopathology and disorders of offspring. *Journal of Nervous and Mental Disease*, 181, 351-357.
- Lynskey, M., Heath, A. C., Nelson, E. C., Bucholz, K. K., Madden, P. A. F., Slutske, W. S., et al. (2002). Genetic and environmental contributions to cannabis dependence in a national young adult twin sample. *Psychological Medicine*, 32, 195-207.
- Lynskey, M. T., Glowinski, A. L., Todorov, A. A., Bucholz, K. K., Madden, P. A. F., Nelson, E. C., et al. (2004). Major depressive disorder, suicidal ideation, and suicide attempt in twins discordant for cannabis dependence and early-onset cannabis use. *Archives of General Psychiatry*, 61, 1026-1032.
- Lynskey, M. T., Vink, J. M., & Boomsma, D. I. (2006). Early onset cannabis use and progression to other drug use in a sample of Dutch twins. *Behavior Genetics*, 36, 195-200.
- MacCoun, R. J. (2006). Competing accounts of the gateway effect: the field thins, but still no clear winner. *Addiction*, 101, 473-474.
- Macdonald, H. (2008). Cocaine use in England and Wales rises as cannabis use falls. *British Medical Journal*, 337, a1367-. doi: 10.1136/bmj.a1367
- MacMillan, H. L., Fleming, J. E., Trocme, N., Boyle, M. H., Wong, M., Racine, Y. A., et al. (1997). Prevalence of child physical and sexual abuse in the community: results from the Ontario Health Supplement. *Journal of the American Medical Association*, 278, 131-135.
- Magura, S., & Laudet, A. B. (1996). Parental substance abuse and child maltreatment: review and implications for intervention. *Children and Youth Services Review*, 1, 193-220.
- Main, M. (1996). Introduction to the special section on attachment and psychopathology: 2. Overview of the field of attachment. *Journal of Consulting and Clinical Psychology*, 64, 237-243.
- Malakoff, M. E., Mayes, L. C., & Schottenfeld, R. S. (1994). Language abilities of preschool children living with cocaine-using mothers. *American Journal on Addictions*, 3, 346-354.
- Marmot, M. (1999). The solid facts: The social determinants of health. *Health Promotion Journal of Australia*, 9, 133-139.
- Marques, P. R., Pokorni, J. L., Long, T., & Teti, L. O. (2007). Maternal depression and cognitive features of 9-year-old children prenatally-exposed to cocaine. *American Journal of Drug and Alcohol Abuse*, 33, 45-61.
- Marsh, A., & Loxley, W. (1994). HIV/AIDS risk behaviour amongst Perth women injecting illicit drugs. In D. H. Broom (Ed.), *Double bind: women affected by alcohol and other drugs* (pp. 77-90). Sydney: Allen & Unwin.
- Martin, C. S., Earleywine, M., Blackson, T. C., Vanyukov, M. M., Moss, H. B., & Tarter, R. E. (1994). Aggressivity, inattention, hyperactivity, and impulsivity in boys at high and low risk for substance abuse. *Journal of Abnormal Child Psychology*, 22, 177-203.
- Martin, J. C. (1992). The effects of maternal use of tobacco products or amphetamines. In T. Sonderegger (Ed.), *Perinatal substance abuse: research findings and clinical implications* (pp. 279-305). London: Johns Hopkins University Press.
- Martin, R. P., & Dombrowski, S. C. (2008). *Prenatal exposures: psychological and educational consequences for children*. New York: Springer.

- Mason, A. P., & McBay, A. J. (1985). Cannabis: pharmacology and interpretation of effects. *Journal of Forensic Sciences*, 30, 615-631.
- Masten, A. S., & Coatsworth, J. D. (1995). Competence, resilience, and psychopathology. In D. Cicchetti & D. Cohen (Eds.), *Developmental psychopathology: volume 2. Risk, disorder, and adaptation* (pp. 32-71). New York: John Wiley.
- Mathers, D. C., & Ghodse, A. H. (1992). Cannabis and psychotic illness. *British Journal of Addiction*, 161, 648-653.
- Mathew, R. J., & Wilson, W. H. (1992). The effects of marijuana on cerebral blood flow and metabolism. In L. Murphy & A. Bartke (Eds.), *Marijuana/cannabinoids: neurobiology and neurophysiology* (pp. 337-386). Florida: CRC Press.
- Mayes, L. C. (1992). Prenatal cocaine exposure and young children's development. *Annals of the American Academy of Political and Social Sciences*, 521, 11-27.
- Mayes, L. C., & Bornstein, M. H. (1995). Developmental dilemmas for cocaine-abusing parents and their children. In M. Lewis & M. Bendersky (Eds.), *Mothers, babies, and cocaine: the role of toxins in development* (pp. 251-272). New Jersey: Lawrence Erlbaum Associates.
- Mayes, L. C., & Sean, T. (2002). Substance abuse and parenting. *Handbook of Parenting. Vol. 4. Social Conditions and Applied Parenting*, 329-359.
- McDermott, D. (1984). The relationship of parental drug use and parent's attitude concerning adolescent drug use to adolescent drug use. *Adolescence*, 19, 89-97.
- McGraw, L. A., Zvonkovic, A. M., & Walker, A. J. (2000). Studying postmodern families: A feminist analysis of ethical tensions in work and family research. *Journal of Marriage and the Family*, 62, 68-77.
- McKay, D. R., & Tennant, C. C. (2000). Is the grass greener? The link between cannabis and psychosis. *Medical Journal of Australia*, 172, 284-286.
- McKeganey, N., Barnard, M., & McIntosh, J. (2002). Paying the price for their parent's addiction: meeting the needs of the children of drug using parents. *Drugs: education, prevention and policy*, 9, 232-246.
- McKetin, R., & Solowij, N. (1999). Event-related potential indices of auditory selective attention in dependent amphetamine users. *Biological Psychiatry*, 45, 1488-1497.
- McLaren, J., Swift, W., Dillon, P., & Allsop, S. (2008). Cannabis potency and contamination: A review of the literature. *Addiction*, 103, 1100-1109.
- McLeod, J. D. (1993). Spouse concordance for alcohol dependence and heavy drinking: evidence from a community sample. *Alcoholism, Clinical and Experimental Research*, 17, 1146-1155.
- McLoyd, V. C. (1998). Socioeconomic disadvantage and child development. *American Psychologist*, 53, 185-204.
- McMahon, T. J., & Luthar, S. S. (1998). Bridging the gap for children as their parents enter substance abuse treatment. In R. Hampton, V. Senatore & T. Gullotta (Eds.), *Substance abuse, family violence and child welfare: bridging perspectives* (pp. 143-187). California: Sage.
- Meller, W. H., Rinehart, R., Cadoret, R. J., & Troughton, E. (1988). Specific familial transmission in substance abuse. *International Journal of the Addictions*, 23, 1029-1039.

- Mendelson, J. H., & Meyer, M. E. (1972). Behavioral and biological concomitants of chronic marihuana smoking by heavy and chronic users *Marihuana: signal of misunderstanding, Appendix 1* (pp. 268-246). Washington, D.C.: US Government Printing Office.
- Mentis, M., & Lundgren, K. (1995). Effects of prenatal exposure to cocaine and associated risk factors on language development. *Journal of Speech and Hearing Research, 38*, 1303-1308.
- Meredith, V., & Price-Robertson, R. (2011). Alcohol misuse and child maltreatment Retrieved from <http://aifs.gov.au/nch/pubs/sheets/rs27/>
- Merikangas, K. R., Dierker, L., & Fenton, B. (1998a). Familial factors and substance abuse: Implications for prevention. *Drug abuse prevention through family interventions, NIDA Research Monograph No. 177* Retrieved 13 June, 2006, from http://www.nida.nih.gov/pdf/monographs/monograph177/012-041_Merikangas.pdf
- Merikangas, K. R., Li, J. J., Stipelman, B., Yu, K., Fucito, L., Swendsen, J., et al. (2009). The familial aggregation of cannabis use disorders. *Addiction, 104*, 622-629.
- Merikangas, K. R., Rounsaville, B. J., & Prusoff, B. A. (1992). Familial factors in vulnerability to substance abuse. In M. Glantz & R. Pickens (Eds.), *Vulnerability to drug abuse* (pp. 75-98). Washington, DC: American Psychiatric Association.
- Merikangas, K. R., Stolar, M., Stevens, D. E., Goulet, J., Preisig, M. A., Fenton, B., et al. (1998b). Familial transmission of substance use disorders. *Archives of General Psychiatry, 55*, 973-979.
- Messinger, D. S., Bauer, C. R., Das, A., Seifer, R., Lester, B. M., Lagasse, L. L., et al. (2004). The maternal lifestyle study: cognitive, motor, and behavioral outcomes of cocaine-exposed and opiate-exposed infants through three years of age. *Pediatrics, 113*, 1677-1685.
- Miczek, K. A. (1976). Does THC induce aggression? Suppression and induction of aggressive reactions by chronic and acute delta-9-tetrahydrocannabinol treatment in laboratory Rats. *Pharmacology of Marihuana*.
- Miczek, K. A., & Tidey, J. W. (1989). Amphetamines: aggressive and social behavior. *Pharmacology and toxicology of amphetamine and related designer drugs, NIDA Research Monograph No. 94*, from <http://www.nida.nih.gov/pdf/monographs/download94.html>
- Midanik, L. T., Tam, T. W., & Weisner, C. (2007). Concurrent and simultaneous drug and alcohol use: results of the 2000 National Alcohol Survey. *Drug and Alcohol Dependence, 90*, 72-80.
- Middaugh, L. D. (1989). Prenatal amphetamine effects on behavior: possible mediation by brain monoamines. *Annals of New York Academy of Sciences, 562*, 308-318.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. (2nd ed.). California: Sage Publications.
- Miller, L. L., & Branconnier, R. J. (1983). Cannabis: effects on memory and the cholinergic limbic system. *Psychological Bulletin, 93*, 441-456.
- Miller, W. R., & Rollnick, S. (2002). *Motivational Interviewing: Preparing people for change*. (2nd ed.). New York: Guilford Press.
- Ministerial Council on Drug Strategy [MCDS]. (2006). National Cannabis Strategy 2006-2009 Retrieved 14 January, 2009, from [http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/F2EF9E5D3AE9DDCA2571B6001C96B8/\\$File/cannabis-strategy.pdf](http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/F2EF9E5D3AE9DDCA2571B6001C96B8/$File/cannabis-strategy.pdf)
- Minuchin, S. (1991). *Families and family therapy*. London: Routledge.

- Minuchin, S., & Fishman, H. C. (1981). *Family therapy techniques*. Massachusetts: Harvard University Press.
- Mirin, S. M., Weiss, R. D., Griffin, M. L., & Michael, J. L. (1991). Psychopathology in drug abusers and their families. *Comprehensive Psychiatry*, 32, 36-51.
- Mitchell, P., Spooner, C., Copeland, J., Vimpani, G., Toumbourou, J., Howard, J., et al. (2001). The role of families in the development, identification, prevention and treatment of illicit drug problems Retrieved 8 May, 2006, from http://www.nhmrc.gov.au/publications/_files/ds8.pdf
- Montgomery, C., Fisk, J., & Craig, L. (2008). The effects of perceived parenting style on the propensity for illicit drug use: the importance of parental warmth and control. *Drug and Alcohol Review*, 27, 640-649.
- Montgomery, S. M., & Ekblom, A. (2002). Smoking during pregnancy and diabetes mellitus in a British longitudinal cohort. *British Medical Journal*, 324, 26-27.
- Moore, D. (2008). Erasing pleasure from public discourse on illicit drugs: on the creation and reproduction of an absence. *International Journal of Drug Policy*, 19, 353-358.
- Moore, T. H. M., Zammit, S., Lingford-Hughes, A., Barnes, T. R. E., Jones, P. B., Burke, M., et al. (2007). Cannabis use and risk of psychotic or affective mental health outcomes: a systematic review. *The Lancet*, 370, 319-328.
- Morgan, C., & Curran, H. (2008). Effects of cannabidiol on schizophrenia-like symptoms in people who use cannabis. *The British Journal of Psychiatry*, 192, 306-307.
- Morrissey, C. E., Barnard, K. E., Greenberg, M. T., Booth, C. L., & Spieker, S. J. (1990). Environmental influences on early language development: the context of social risk. *Development and psychopathology*, 2, 127-149.
- Morrow, C. E., Bandstra, E. S., Anthony, J. C., Ofir, A. Y., Xue, L., & Reyes, M. B. (2003). Influence of prenatal cocaine exposure on early language development: longitudinal findings from four months to 3 years of age. *Journal of Developmental and Behavioral Pediatrics*, 24, 39-50.
- Morse, J. M. (2005). The paid/unpaid work of participants. [editorial]. *Qualitative Health Research*, 15, 727-728.
- Moss, H. B., Majumder, P. P., & Vanyukov, M. (1994). Familial resemblance for psychoactive substance use disorders: behavioral profile of high risk boys. *Addictive Behaviors*, 19, 199-208.
- Murphy, S., & Rosenbaum, M. (1999). *Pregnant women on drugs: combating stereotypes and stigma*. New Jersey: Rutgers University Press.
- Musty, R. E., & Kaback, L. (1995). Relationships between motivation and depression in chronic marijuana users. *Life Sciences*, 56, 215-258.
- Myerscough, R., & Taylor, S. P. (1985). The effects of marijuana on human physical aggression. *Journal of Personality and Social Psychology*, 49, 1541-1546.
- Nahas, G. G. (1990). *Keep off the grass*. Vermont: Paul S. Erickson.
- Najavits, L. M., Weiss, R. D., & Shaw, S. R. (1997). The link between substance abuse and posttraumatic stress disorder in women: a research review. *American Journal on Addictions*, 6, 273-283.
- Narrow, W. E., Regier, D. A., Rae, D. S., Manderscheid, R. W., & Locke, B. Z. (1993). Use of services by persons with mental and addictive disorders. Findings from the National Institute of

- Mental Health Epidemiologic Catchment Area Program. *Archives of General Psychiatry*, 50, 95-107.
- National Cannabis Prevention and Information Centre (NCPIC). (2008). Cannabis potency. *Fact Sheet 4* Retrieved October 2012, from <http://ncpic.org.au/ncpic/publications/factsheets/article/cannabis-potency>
- National Centre for Education and Training on Addiction [NCETA] Consortium. (2004). Alcohol and other drugs: A handbook for health professionals 3rd ed. Retrieved 17 March 2008, from <http://www.aodgp.gov.au/internet/aodgp/publishing.nsf/content/handbook>
- National Drug Strategy. (2001a). Background paper: National Action Plan on Illicit Drugs, 2001 to 2002-03 Retrieved 26 January, 2006, from http://www.nationaldrugstrategy.gov.au/pdf/illicitactionplan_back.pdf
- National Drug Strategy. (2001b). National Action Plan on Illicit Drugs, 2001 to 2002-03. Retrieved 25 January, 2006, from <http://www.nationaldrugstrategy.gov.au/pdf/illicitactionplan.pdf>
- National Institute on Drug Abuse [NIDA]. (1996). National pregnancy and health survey. Maryland: National Institutes of Health.
- Neale, J., Allen, D., & Coombes, L. (2006). Qualitative research methods within the addictions. *Addiction*, 100, 1584-1593.
- Neuspiel, D. R. (1995). The problem of confounding in research on prenatal cocaine effects on behavior and development. In M. Lewis & M. Bendersky (Eds.), *Mothers, babies, and cocaine: The role of toxins in development* (pp. 95-109). New Jersey: Lawrence Erlbaum Associates.
- Newcomb, M., & Bentler, P. (1990). Antecedents and consequences of cocaine use: an eight-year study from early adolescence to young adulthood. In L. Robins & M. Rutter (Eds.), *Straight and devious pathways from childhood to adulthood* (pp. 158-181): Cambridge University Press.
- Newcomb, M. D., & Bentler, P. (1988). *Consequences of adolescent drug use: impact on lives of young adults*. California: Sage.
- Newman, T., & Blackburn, S. (2002). Interchange 78. Transitions in the lives of children and young people: resilience factors Retrieved 30 January, 2007, from <http://www.scotland.gov.uk/Publications/2002/10/15591/11950>
- Nnadi, C. U., Olubansile, A. M., McCurtis, H. L., & Cadet, J. L. (2005). Neuropsychiatric effects of cocaine use disorders. *Journal of the National Medical Association*, 97, 1504-1515.
- Noller, P., & Callan, V. (1991). *The adolescent in the family*. London: Routledge.
- Novak, W. (1980). *High culture: marijuana in the lives of Americans*: The Cannabis Institute of America, Inc.
- Nunes, E., Quitkin, F., & Klein, D. (1989). Psychiatric diagnosis in cocaine abuse. *Psychiatry Research*, 28, 105-114.
- Nurco, D. N., Blatchley, R. J., Hanlon, T. E., O'Grady, K. E., & McCarren, M. (1998). The family experiences of narcotic addicts and their subsequent parenting practices. *The American journal of drug and alcohol abuse*, 24, 37-59.
- O'Brien, C. (2010). Addiction and dependence in DSM-V. *Addiction*, 106, 866-867.
- O'Brien, C. P. (1996). Drug addiction and drug abuse. In J. G. Hardman, L. Limbird & A. G. Gilman (Eds.), *Goodman & Gilman's The pharmacological basis of therapeutics*. USA: Macmillan.

- O'Connell, C. M., & Fried, P. A. (1991). Prenatal exposure to cannabis: a preliminary report of postnatal consequences in school-age children. *Neurotoxicology and Teratology*, 13, 631-639.
- O'Connor, J. (1990). Mass media and the prevention of drug related problems: A psychological appraisal. *Drug and Alcohol Review*, 9, 177-185.
- O'Leary, C. (2002). Fetal Alcohol Syndrome. A literature review Retrieved 8 February, 2005, from [http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-pubhlth-publicat-document-fetalcsyn-cnt.htm/\\$FILE/fetalcsyn.pdf](http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-pubhlth-publicat-document-fetalcsyn-cnt.htm/$FILE/fetalcsyn.pdf)
- Office of National Drug Control Policy. (2010). Marijuana: know the facts. Retrieved 2 September, 2012, from http://www.whitehouse.gov/sites/default/files/ondcp/Fact_Sheets/marijuana_fact_sheet_jw_10-5-10.pdf
- Oldenberg, B., & Lemon, J. (1992). Drug use among a cohort of Sydney teenagers in 1985, 1986 and 1988: a report. Sydney: Department of Public Health, University of Sydney.
- Olesen, V. L. (2003). Feminisms and qualitative research at and into the millennium. In N. K. Denzin & Y. S. Lincoln (Eds.), *Collecting and interpreting qualitative materials* (2nd ed., pp. 332-397). London: Sage.
- Orford, J., & Velleman, R. (1990). Offspring of parents with drinking problems: drinking and drug-taking as young adults. *British Journal of Addiction*, 85, 779-794.
- Orme, T., & Rimmer, J. (1981). Alcoholism and child abuse: A review. *Journal of Studies on Alcohol*, 42, 273-287.
- Ornoy, A., Michailevskaya, V., Lukashov, I., Bar-Hamburger, R., & Harel, S. (1996). The developmental outcome of children born to heroin-dependent mothers raised at home or adopted. *Child Abuse and Neglect*, 20, 385-396.
- Ornstein, T. J., Iddon, J. L., Baldacchino, A. M., Sahakian, B. J., London, M., Everitt, B. J., et al. (2000). Profiles of cognitive dysfunction in chronic amphetamine and heroin abusers. *Neuropsychopharmacology*, 23, 113-126.
- Osborne, G. B., & Fogel, C. (2008). Understanding the motivations for recreational marijuana use among adult Canadians. *Substance Use and Misuse*, 43, 539-572.
- Osofsky, J., & Fenichel, E. (Eds.). (1994). *Hurt, healing, hope: caring for infants and toddlers in violent environments*. Virginia: Zero to Three.
- Ostrea, E. M., Jr., & Garcia, D. C. (1997). Neonatal drug abstinence syndrome. In J. Hoekelman & N. Nelson (Eds.), *Primary pediatric care* (3rd ed., pp. 561-568). St. Louis: Mosby-Year Book.
- Palmer, J. (2008). Re Georgia and Luke (No 2) [2008] NSW Supreme Court.
- Patton, G. C., Coffey, C., Carlin, J. B., Degenhardt, L., Lynskey, M., & Hall, W. (2002). Cannabis use and mental health in young people: cohort study. *British Medical Journal*, 325, 1195-1198.
- Patton, G. C., Coffey, C., Carlin, J. B., Sawyer, S. M., & Lynskey, M. (2005). Reverse gateways? Frequent cannabis use as a predictor of tobacco initiation and nicotine dependence. *Addiction*, 100, 1518-1525.
- Patton, G. C., Coffey, C., Lynskey, M. T., Reid, S., Hemphill, S., Carlin, J. B., et al. (2007). Trajectories of adolescent alcohol and cannabis use into young adulthood. *Addiction*, 102, 607-615.
- Patton, M. Q. (1999). Enhancing the quality and credibility of qualitative analysis. *Health Services Research*, 34, 1189-1208.

- Patton, M. Q. (2002). *Qualitative research and evaluative methods* (3rd ed.). California: Sage.
- Pawl, J. H. (1992). Interventions to strengthen relationships between infants and drug-abusing or recovering parents. *Zero to Three*, 13, 6-10.
- Pearson, G. (2001). Normal drug use: Ethnographic fieldwork among an adult network of recreational drug users in inner London. *Substance Use and Misuse*, 36, 167-200.
- Perez-Reyes, M., Lemberger, L., Martz, R., Rodda, B., Forney, R., & Rowe, H. (1973). A comparison of the pharmacological activity of delta-9-tetrahydrocannabinol. *Experientia*, 29, 1009-1010.
- Perez-Reyes, M., Timmons, M. C., Lipton, M. A., Davis, K. H., & Wall, M. (1972). Intravenous injection in man of delta-9-tetrahydrocannabinol and 11-hydroxy-delta-9-tetrahydrocannabinol. *Science*, 177, 633-635.
- Perlmutter, J. F. (1974). Heroin addiction and pregnancy. *Obstetrical and Gynecological Survey*, 29, 439-446.
- Perry, B. (2004). *Maltreated children: Experience, brain development, and the next generation*. New York: W.W. Norton.
- Perry, B. (2005). Maltreatment and the developing child: how early childhood experience shapes child and culture. Retrieved from <http://www.lfcc.on.ca/mccain/perry.pdf>
- Perry, B. (2009). Understanding the effects of maltreatment on brain development. Retrieved from www.childwelfare.gov/pubs/issue_briefs/brain_development/
- Phil, R. O., & Sigal, H. (1970). Motivation levels and marijuana high. *Canadian Journal of Abnormal Psychology*, 87, 280-.
- Phillips, R. (Ed.). (2004). *Children exposed to parental substance misuse. Implications for family placement*. London: British Association for Adoption and Fostering.
- Potter, D., Clark, P., & Brown, M. (2008). Potency of Δ^9 -THC and other cannabinoids in cannabis in England in 2005: Implications for psychoactivity and pharmacology. *Journal of Forensic Science*, 53, 90-94.
- Ramstrom, J. (2004). Adverse health consequences of cannabis use. Retrieved 14 January, 2009, from <http://www.fhi.se/upload/PDF/2004/English/r200446adversehealthconsequencescannabis0503.pdf>
- Rawson, R. A., Huber, A., Brethen, P., Obert, J., Gulati, V., Shoptaw, S., et al. (2000). Methamphetamine and cocaine users: differences in characteristics and treatment retention. *Journal of Psychoactive Drugs*, 32, 233-238.
- Regan, D. O., Ehrlich, S. M., & Finnegan, L. P. (1987). Infants of drug addicts: at risk for child abuse, neglect, and placement in foster care. *Neurotoxicology and Teratology*, 9, 315-319.
- Register, C. A., & Williams, D. R. (1992). Labor market effects of marijuana and cocaine use among young men. *Industrial and Labor Relations Review*, 45, 435-451.
- Reilly, D., Didcott, P., Swift, W., & Hall, W. (1998). Long term cannabis use: characteristics of users in an Australian rural area. *Addiction*, 93, 837-846.
- Reinarman, C., Cohen, P. D. A., & Kaal, H. L. (2004). The limited relevance of drug policy: cannabis in Amsterdam and in San Francisco. *American Journal of Public Health*, 94, 836-842.

- Repetti, R. L., Taylor, S. E., & Seeman, T. E. (2002). Risky families: family social environments and the mental and physical health of offspring. [review]. *Psychological Bulletin*, 128, 330-366.
- Resnik, H., Gardner, S. E., & Rogers, C. M. (1998). Child welfare and substance abuse: premises, programs, and policies. In R. Hampton, V. Senatore & T. Gullotta (Eds.), *Substance abuse, family violence and child welfare: bridging perspectives* (pp. 96-123). California: Sage.
- Rey, J. M., & Tennant, C. C. (2005). Cannabis and mental health: more evidence establishes a clear link between use of cannabis and psychiatric illness. [editorial]. *British Medical Journal*, 325, 1183-1184.
- Rhee, S. H., Hewitt, J. K., Young, S. E., & Corley, R. P. (2003). Genetic and environmental influences on substance initiation, use, and problem use in adolescents. *Archives of General Psychiatry*, 60, 1256-1264.
- Rhodes, J., & Jason, L. (1990). A social stress model of substance abuse. *Journal of Consulting and Clinical Psychology*, 58, 395-401.
- Richardson, G., Day, N., & McGauhey, P. (1993). The impact of perinatal marijuana and cocaine use on the infant and child. *Clinical Obstetrics and Gynecology*, 36, 302-318.
- Richardson, G. A. (1998). Prenatal cocaine exposure: a longitudinal study of development. *Annals of the New York Academy of Sciences*, 846, 144-152.
- Richardson, G. A., Conroy, M. L., & Day, N. L. (1996). Prenatal cocaine exposure: effects on the development of school-age children. *Neurotoxicology and Teratology*, 18, 627-634.
- Richardson, G. A., & Day, N. L. (1994). Detrimental effects of prenatal cocaine exposure: illusion or reality? *Journal of the American Academy of Child and Adolescent Psychiatry*, 33, 28-34.
- Richardson, G. A., Day, N. L., & Taylor, P. M. (1989). The effect of prenatal alcohol, marijuana and tobacco exposure on neonatal behavior. *Infant Behavior and Development*, 12, 199-209.
- Ritzlin, R. S., Gupta, R. C., & Lundberg, G. D. (1979). Delta-9-tetrahydrocannabinol levels in street samples of marijuana and hashish: correlation to user reactions. *Clinical Toxicology*, 15, 45-53.
- Robertson, J. R., Miller, P., & Anderson, R. (1996). Cannabis use in the community. *British Journal of General Practice*, 46, 671-674.
- Robins, L. N. (1995). The natural history of substance use as a guide to setting drug policy. *American Journal of Public Health*, 85, 12-13.
- Robins, L. N., & Mills, J. L. (1993). Effects of in utero exposure to street drugs. *American Journal of Public Health*, 83 (supplement), 5-32.
- Rodning, C., Beckwith, L., & Howard, J. (1989). Characteristics of attachment organization and play organization in prenatally drug-exposed toddlers. *Development and Psychopathology*, 1, 277-289.
- Rogers, R. D., Everitt, B. J., Baldacchino, A., Blackshaw, A. J., Swainson, A. J., Wynne, K., et al. (1999). Dissociable deficits in the decision-making cognition of chronic amphetamine-abusers, opiate abusers, patients with focal damage to prefrontal cortex, and tryptophan-depleted normal volunteers: evidence for monoaminergic mechanisms. *Neuropsychopharmacology*, 20, 322-339.
- Rohsenow, D., Corbett, R., & Devine, D. (1988). Molested as children: a hidden contribution to substance abuse? *Journal of Substance Abuse Treatment*, 5, 13-18.

- Root, M. (1989). Treatment failures: the role of sexual victimization in women's addictive behavior. *American Journal of Orthopsychiatry*, 59, 542-549.
- Rosenbaum, M. (1979). Difficulties in taking care of business: women addicts as mothers. *American Journal of Drug and Alcohol Abuse*, 6, 431-446.
- Ross, A. J., & Davies, J. B. (2009). Cannabis 'drugspeak' from young people in Easterhouse, Glasgow. *Drugs: education, prevention and policy*, 16, 152-166.
- Roxbrough, A., & Degenhardt, L. (2008). Characteristics of drug-related hospital separations in Australia. *Drug & Alcohol Dependence*, 92, 149-155.
- Royal Women's Hospital. (2003). Misuse of drugs in pregnancy and breastfeeding
- Russell, M. L., Moralejo, D. G., & Burgess, E. D. (2000). Paying research subjects: participants' perspectives. *Journal of Medical Ethics*, 26, 126-130.
- Rutter, M. (1979). Protective factors in children's responses to stress and disadvantage. In M. Kent & J. Rolf (Eds.), *Primary prevention of psychopathology* (Vol. 3, pp. 49-74). New Hampshire: University Press of New England.
- Rutter, M. (1990). Psychosocial resilience and protective mechanisms. In J. Rolf, A. Masten, D. Cichetti, K. Nuechterlin & S. Weintraub (Eds.), *Risk and protective factors in the development of psychopathology* (pp. 181-214). New York: Cambridge University Press.
- Rutter, M. E. (1987). Continuities and discontinuities from infancy. In J. Osofsky (Ed.), *Handbook of infant development* (2nd ed.). New York: John Wiley & Sons.
- Salo, R., Nordahl, T. E., Possin, K., Leamon, M., Gibson, D. R., Galloway, G. P., et al. (2002). Preliminary evidence of reduced cognitive inhibition in methamphetamine-dependent individuals. *Psychiatry Research*, 111, 65-74.
- Sameroff, A. J., Seifer, R., Baldwin, A., & Baldwin, C. (1993). Stability of intelligence from preschool to adolescence: the influence of social and family risk factors. *Child Development*, 64, 80-97.
- Sampson, R. J., & Laub, J. H. (1994). Urban poverty and the family context of delinquency: a new look at structure and process in a classic study. *Child Development*, 65, 523-540.
- Sarantakos, S. (1993). *Social research*. Melbourne: Macmillan Education Australia.
- Scannapieco, M., & Connell-Carrick, K. (2007). Assessment of families who have substance abuse issues: those who maltreat their infants and toddlers and those who do not. *Substance Use and Misuse*, 42, 1545-1553.
- Scheier, L. M., & Newcombe, M. D. (1991). Psychosocial predictors of drug use initiation and escalation: an expansion of the multiple risk factors hypothesis using longitudinal data. *Contemporary Drug Problems*, 18, 31-73.
- Schenk, S., & Partridge, B. (1999). Cocaine-seeking produced by experimenter-administered drug injections: dose-effect relationships in rats. *Psychopharmacology*, 147, 285-290.
- Scherling, D. (1994). Prenatal cocaine exposure and childhood psychopathology: a developmental analysis. *American Journal of Orthopsychiatry*, 64, 9-19.
- Scherrer, J.F., Grant, J.D., Duncan, A.E., Pan, H., Waterman, B., Jacob, T., et al. (2008). Measured environmental contributions to cannabis abuse/dependence in an offspring of twins design. *Addictive Behaviors*, 33, 1255-1266.

- Schneider, M. (2008). Puberty as a highly vulnerable developmental period for the consequences of cannabis exposure. *Addiction Biology*, 13, 253-263.
- Schore, A. M. (2001). Effects of secure attachment relationship on right brain development, affect regulation, and infant mental health. *Infant Mental Health Journal*, 22, 7-66.
- Schuler, M. E., Nair, P., & Kettinger, L. (2003). Drug-exposed infants and developmental outcome. Effects of a home intervention and ongoing maternal drug use. *Archives of Pediatrics & Adolescent Medicine*, 157, 133-138.
- Schwandt, T. A. (2003). Three epistemological stances for qualitative inquiry: interpretivism, hermeneutics, and social constructionism. In N. K. Denzin & Y. S. Lincoln (Eds.), *Collecting and interpreting qualitative materials* (2nd ed., pp. 189-214). London: Sage.
- Sewell, R. A., Poling, J., & Sofuoglu, M. (2009). The effect of cannabis compared with alcohol on driving. *The American Journal on Addictions*, 18, 185-193.
- Shedler, J., & Block, J. (1990). Adolescent drug use and psychosocial health: a longitudinal enquiry. *American Psychologist*, 45, 612-630.
- Shiono, P. H., Klebanoff, M. A., Nugent, R. P., Cotch, M. F., Wilkins, D. G., Rollins, D. E., et al. (1995). The impact of cocaine and marijuana use on low birth weight and preterm birth: a multicenter study. *American Journal of Obstetrics and Gynecology* 172, 19-27.
- Shukla, R. K. (2005). Using marijuana in adulthood: The experience of a sample of users in Oklahoma City. *Journal of Ethnicity in Substance Abuse*, 4, 153-181.
- Sickels, R., & Taubman, P. (1991). Who uses illegal drugs? *American Economic Review*, 81, 248-251.
- Silverman, D. (2001). *Interpreting qualitative data* (2nd ed.). London: Sage.
- Sim, T., Simon, S. L., Domier, C., Richardson, K., Rawson, R., & Ling, W. (2002). Cognitive deficits among methamphetamine users with attention deficit hyperactivity disorder symptomology. *Journal of Addictive Diseases*, 21, 75-89.
- Simon, S. L., Domier, C., Carnell, J., Brethen, P., Rawson, R., & Ling, W. (2000). Cognitive impairment in individuals currently using methamphetamine. *American Journal on Addictions*, 9, 222-231.
- Simon, S. L., Domier, C. P., Sim, T., Richardson, K., Rawson, R. A., & Ling, W. (2002). Cognitive performance of current methamphetamine and cocaine abusers. *Journal of Addictive Diseases*, 21, 61-74.
- Simonds, J. F., & Kashani, J. (1980). Specific drug use and violence in delinquent boys. *American Journal of Drug and Alcohol Abuse*, 7, 305-322.
- Simons, J., Correia, C. J., & Carey, K. B. (2000). A comparison of motives for marijuana and alcohol use among experienced users. *Addictive Behaviors*, 25, 153-160. doi: 10.1016/s0306-4603(98)00104-x
- Simons, R. L., Whitbeck, L. B., Beaman, J., & Conger, R. D. (1994). The impact of mother's parenting, involvement by nonresidential fathers, and parental conflict on the adjustment of adolescent children. *Journal of Marriage and the Family*, 56, 356-374.
- Simpson, T. L., & Miller, W. R. (2002). Concomitance between childhood sexual and physical abuse and substance use problems: a review. *Clinical Psychology Review*, 22, 27-77.
- Sindicich, N., & Stafford, J. (2012). Snapshot: Drug use in 2012. *Of Substance eBulletin*, from <http://www.ofsubstance.org.au/e-bulletin/Of-Substance-eBulletin-9-October-2012.html>

- Single, E. (1995). Defining harm reduction. *Drug and Alcohol Review*, 14, 287-290.
- Single, E. W. (1989). The impact of marijuana decriminalization: an update. *Journal of Public Health Policy*, Winter, 456-466.
- Sinha, R., & Schottenfeld, R. (2001). The role of comorbidity in relapse and recovery. In C. G. Leukefeld & J. J. Platt (Eds.), *Relapse and recovery in addictions* (pp. 172-207). London: Yale University Press.
- Skosnik, P. D., Spatz-Glenn, L., & Parks, S. (2001). Cannabis use is associated with schizotypy and attentional disinhibition. *Schizophrenia Research*, 48, 83-92.
- Smart, R. G., & Fejer, D. (1972). Drug use among adolescents and their parents: closing the generation gap in mood modification. *Journal of Abnormal Psychology*, 79, 153-160.
- Smeriglio, V. L., & Wilcox, H. C. (1999). Prenatal drug exposure and child outcome: past, present, future. *Clinics in Perinatology*, 26, 1-15.
- Smith, A. C., Flick, G. L., Ferriss, G. S., & Sellman, A. H. (1974). Prediction of developmental outcome at seven years from prenatal, perinatal and postnatal events. *Child Development*, 43, 495-507.
- Smith, J. A. (1995). Semi-structured interviewing and qualitative analysis. In J. A. Smith, R. Harre & L. V. Langenhove (Eds.), *Rethinking Methods in Psychology*. London: Sage.
- Smith, L., Yonekura, M. L., Wallace, T., Berman, N., Kuo, J., & Berkowitz, C. (2003). Effects of prenatal methamphetamine exposure on fetal growth and drug withdrawal symptoms in infants born at term. *Journal of Developmental & Behavioral Pediatrics*, 24, 17-23.
- Smith, L. M., LaGasse, L. L., Derauf, C., Grant, P., Shah, R., Arria, A., et al. (2008). Prenatal methamphetamine use and neonatal neurobehavioral outcome. *Neurotoxicology and Teratology*, 30, 20-28.
- Snyder, J., Dishion, T. J., & Patterson, G. R. (1986). Determinants and consequences of associating with deviant peers during preadolescence and adolescence. *Journal of Early Adolescence*, 6, 29-43.
- Solowij, N. (1995). Do cognitive impairments recover following cessation of cannabis use? *Life Sciences*, 56, 2119-2126.
- Solowij, N., & Grenyer, B. (1995). Are the adverse consequences of cannabis use age-dependent? . [editorial]. *Addiction*, 97, 1083-1086.
- Solowij, N., Michie, P. T., & Fox, A. M. (1991). Effects of long-term cannabis use on selective attention: an event-related potential study *Pharmacology Biochemistry and Behavior*, 40, 683-688.
- Sowder, B. J., & Burt, M. R. (1980a). Children of addicts and nonaddicts: a comparative investigation in five urban sites *Heroin-addicted parents and their children: two reports* (pp. 19-35). Maryland: National Institute on Drug Abuse.
- Sowder, B. J., & Burt, M. R. (1980b). *Children of heroin addicts: an assessment of health, learning, behavioral and adjustment problems*. New York: Praeger.
- Spooner, C. (1999). Causes of adolescent drug abuse and implications for treatment. *Drug and Alcohol Review*, 18, 457-479.
- Spooner, C., Hall, W., & Lynskey, M. (2001). Structural determinants of youth drug use. *ANCD Research Paper No. 2* Retrieved 26 July, 2006, from www.ancd.org.au/publications/pdf/rp2_youth_drug_use.pdf

- Spooner, C., & Hetherington, K. (2004). Social determinants of drug use. *NDARC Technical Report No. 228*. Retrieved 24 June, 2006
- Sroufe, L. A. (1988). The role of infant caregiver attachment in development. In J. Belsky & T. Nezworski (Eds.), *Clinical implications of attachment* (pp. 118-138). New Jersey: Erlbaum.
- Stafford, J., & Burns, L. (2011). Key findings from the 2011 IDRS: a survey of people who inject drugs. *Drug Trends Bulletin*. Retrieved from <http://ndarc.med.unsw.edu.au/sites/ndarc.cms.med.unsw.edu.au/files/ndarc/resources/IDRS%20October%20bulletin%202011.pdf>
- Steinberg, L., Fletcher, A., & Darling, N. (1994). Parental monitoring and peer influences on adolescent substance use. *Pediatrics*, 93, 1060-1064.
- Stephens, R. S., Roffman, R. A., & Simpson, E. E. (1993). Adult marijuana users seeking treatment. *Journal of Consulting and Clinical Psychology*, 61, 1100-1104.
- Stimmel, B. (1982). Fetal outcome in narcotic dependent women: the importance of the type of maternal narcotic used. *American Journal of Drug and Alcohol Abuse*, 9, 383-395.
- Stockwell, T. R., Toumbourou, J., Letcher, P., Smart, D., Sanson, A., & Bond, L. (2004). Risk and protection factors for different intensities of adolescent substance use: when does the prevention paradox apply? *Drug and Alcohol Review*, 23, 67-77.
- Stout, J. C., Busemeyer, J. R., Lin, A., Grant, S. J., & Bonson, K. R. (2004). Cognitive modeling analysis of decision-making processes in cocaine abusers. *Psychonomic Bulletin & Review*, 11, 742-747.
- Strauss, M. E., Lessen-Firestone, J. K., Chavez, C. J., & Stryker, J. C. (1979). Children of methadone-treated women at five years of age. *Pharmacology Biochemistry and Behavior (Supplement)*, 11, 3-6.
- Streissguth, A. P., Barr, H. M., Sampson, P. D., Darby, B. L., & Martin, D. C. (1989). IQ at age 4 in relation to maternal alcohol use and smoking during pregnancy. *Developmental Psychology*, 25, 3-11.
- Strike, C. J., Urbanoski, K. A., & Rush, B. R. (2003). Who seeks treatment for cannabis-related problems? *Canadian Journal of Public Health*, 94, 351-354.
- Strong, B., DeVault, C., & Cohen, T. F. (2005). *The marriage and family experience*. (9th ed.). California: Thomson Wadsworth.
- Substance Abuse and Mental Health Services Administration [SAMHSA]. (2000). National Household Survey on Drug Abuse: Main Findings 1998. Retrieved 14 January, 2009, from <http://www.oas.samhsa.gov/NHSDA/98MF.pdf>
- Suchman, N. E., Rounsaville, B., DeCoste, C., & Luthar, S. (2007). Parental control, parental warmth, and psychosocial adjustment in a sample of substance-abusing mothers and their school-aged and adolescent children. *Journal of Substance Abuse Treatment*, 32, 1-10.
- Sullivan, J. M. (2000). Cellular and molecular mechanisms underlying learning and memory impairments produced by cannabinoids. *Learning and Memory*, 7, 132-139.
- Swaim, R. (1991). Childhood risk factors and adolescent drug and alcohol abuse. *Educational Psychology Review*, 3, 363-398.
- Swift, W., Copeland, J., & Lenton, S. (2000). Cannabis and harm reduction. [review]. *Drug and Alcohol Review*, 19, 101-112.

- Swift, W., Gates, P., & Dillon, P. (2005). Survey of Australians using cannabis for medical purposes. *Harm Reduction Journal*, 2.
- Swift, W., Hall, W., & Copeland, J. (1997). Cannabis dependence among long-term users in Sydney, Australia. *NDARC Technical Report No. 47*
- Sydney, S. (2003). Comparing cannabis with tobacco - again: link between cannabis and mortality is still not established. *British Medical Journal*, 327, 635-636.
- Szmigin, I., Griffin, C., Mistral, W., Bengry-Howell, A., Weale, L., & Hackley, C. (2008). Re-framing 'binge drinking' as calculated hedonism: Empirical evidence from the UK. *International Journal of Drug Policy*, 19, 359-366. doi: 10.1016/j.drugpo.2007.08.009
- Sznitman, S. R., Olsson, B., & Room, R. (2008). A cannabis reader: global issues and local experiences. *Monograph series 8, volume 1* Retrieved 17 October, 2012, from <http://www.emcdda.europa.eu/publications/monographs/cannabis>
- Tamis-LeMonda, C. S., & Bornstein, M. H. (1989). Habituation and maternal encouragement of attention in infancy as predictors of toddler language, play, and representational competence. *Child Development*, 60, 738-751.
- Tanda, G., & Goldberg, S. R. (2003). Cannabinoids: reward, dependence, and underlying neurochemical mechanisms - a review of recent preclinical data. [review of animal studies]. *Psychopharmacology (Berl)*.
- Tanda, G., Pontieri, F. E., & Di Chiara, G. (1997). Cannabinoid and heroin activation of mesolimbic dopamine transmission by a common $\mu 1$ opioid receptor mechanism. *Science*, 276, 208-2050.
- Tansley, B. W., Fried, P. A., & Mount, H. T. J. (1986). Visual processing in children prenatally exposed to marijuana and nicotine: a preliminary report. *Canadian Journal of Public Health*, 77, 72-78.
- Tart, T. C. (1970). Marijuana intoxication: common experiences. *Nature*, 226, 701-704.
- Tarter, R., Laird, S., Kabene, M., Bukstein, O., & Kaminer, Y. (1990). Drug abuse severity in adolescents is associated with magnitude of deviation in temperament traits. *British Journal of the Addictions*, 85, 1501-1504.
- Taylor, D. R., & Hall, W. (2003). Respiratory health effects of cannabis: Position statement of The Thoracic Society of Australia and New Zealand. *Internal Medicine Journal*, 33, 310-313.
- Taylor, T. (2008). Supporting research into the therapeutic role of marijuana. A position paper of the American College of Physicians, from http://www.acponline.org/advocacy/where_we_stand/other_issues/medmarijuana.pdf
- Tennes, K., Avitable, N., Blackard, C., Boyles, C., Hassoun, B., Holmes, L., et al. (1985). Marijuana: prenatal and post-natal exposure in the human. In T. M. Pinkert (Ed.), *Current research on the consequences of maternal drug abuse*, NIDA Research Monograph No. 59. Maryland: National Institute on Drug Abuse [NIDA].
- Terracciano, A., Lockenhoff, C., Crum, R., Bienvenu, O. J., & Costa, P. T. (2008). Five-Factor Model personality profiles of drug users. *BMC Psychiatry*, 8, 22. Retrieved from <http://www.biomedcentral.com/1471-244X/8/22>
- Theakston, J. A., Stewart, S. H., Dawson, M. Y., Knowlden-Loewen, S. A. B., & Lehman, D. R. (2004). Big-Five personality domains predict drinking motives. *Personality and Individual Differences*, 37, 971-984.

- Thomas, H. (1993). Psychiatric symptoms in cannabis users. *British Journal of Psychiatry*, 163, 141-149.
- Thomas, H. (1996). A community survey of adverse effects of cannabis use. *Drug & Alcohol Dependence*, 42, 201-207.
- Thorley, A. (1980). Medical responses to drinking problems. *Medicine*, 35, 1816-1822.
- Tinklenberg, J. R., Murphy, P., Murphy, P. L., & Pfefferbaum, A. (1981). Drugs and criminal assaults by adolescents: A replication study. *Journal of Psychoactive Drugs*, 13, 277-287.
- Toomey, R., Lyons, M. J., Eisen, S. A., Xian, H., Chantarujikapong, S., Seidman, L. J., et al. (2003). A twin study of the neuropsychological consequences of stimulant abuse *Archives of General Psychiatry*, 60, 303-310.
- Topley, J., Windsor, D., & Williams, R. (2007). Behavioural, developmental and child protection outcomes following exposure to Class A drugs in pregnancy. *Child: Care, Health and Development*, 34, 71-76.
- Topp, L., Day, C., & Degenhardt, L. (2003). Changes in patterns of drug injection concurrent with a sustained reduction in the availability of heroin in Australia. *Drug and Alcohol Dependence*, 70, 275-286.
- Toumbourou, J. W. (2002). Drug prevention strategies: A developmental settings approach. *Prevention Research Evaluation Report No. 2* Retrieved 3 February, 2005, from www.druginfo.com.au/article.asp?id=4341&ContainerID=516
- Tronick, E. Z., & Beeghly, M. (1999). Prenatal cocaine exposure, child development, and the compromising effects of cumulative risk. *Clinical Perinatology*, 26, 151-171.
- Tsuang, M. T., Lyons, M. J., Eisen, S. A., Goldberg, J., True, W., Nong, L., et al. (1996). Genetic influences on DSM-III-R drug abuse and dependence: a study of 3372 twin pairs. *American Journal of Medical Genetics*, 67, 473-477.
- Tsuang, M. T., Lyons, M. J., Meyer, J. M., Doyle, T., Eisen, S. A., Goldberg, J., et al. (1998). Co-occurrence of abuse of different drugs in men: the role of drug-specific and shared vulnerabilities. *Archives of General Psychiatry*, 55, 967-972.
- Tubman, J. G., Vicary, J. R., von Eye, A., & Lerner, J. V. (1991). Qualitative changes in relationships between substance use and adjustment during adolescence. *Journal of Substance Abuse*, 3, 405-414.
- Tucker, M. B. (1979). A descriptive and comparative analysis of the social support system of heroin addicted women *Addicted women: family dynamics, self-perceptions, and support systems* (pp. 37-76). Washington, DC: National Institute on Drug Abuse [NIDA].
- Tunving, K., Lundquist, T., & Eriksson, D. (1987). "A way out of fog" An outpatient program for cannabis abusers. In G. Chesher, P. Consroe & R. Musty (Eds.), *Marijuana: An international research report. NCADA Monograph No. 7* (pp. 207-212). Canberra: Australian Government Publishing Service.
- Turiel, E. (1989). The social construction of social construction. In W. Damon (Ed.), *Child development today and tomorrow* (pp. 86-106). California: Jossey-Bass.
- Tyler, R., Howard, J., Espinosa, M., & Doakes, S. S. (1997). Placement with substance abusing mothers vs. placement with other relatives: infant outcomes. *Child Abuse and Neglect*, 21, 337-349.

- Ungerleider, J. T., & Andrysiak, T. (1981). Bias and the cannabis researcher. *Journal of Clinical Pharmacology*, 21, 153-158S.
- United Nations Office on Drugs and Crime [UNODC]. (2012). World Drug Report 2012. New York: United Nations.
- Van Den Bree, M., & Pickworth, W. B. (2005). Risk factors predicting changes in marijuana involvement in teenagers. *Archives of General Psychiatry*, 62, 311-319.
- Veen, N. D., Selten, J. P., Van Der Tweel, I., Feller, W. G., Hoek, H. W., & Kahn, R. S. (2004). Cannabis use and age at onset of schizophrenia. *American Journal of Psychiatry*, 161, 501-506.
- Velleman, R. (1993). *Alcohol and the family*. London: Institute of Alcohol Studies.
- Velleman, R. (1996). Alcohol and drug problems in parents: an overview of the impact on children and the implications for practice. In M. Gopfert, J. Webster & M. V. Seeman (Eds.), *Parental psychiatric disorder: distressed parents and their families*. Cambridge: Cambridge University Press.
- Velleman, R. (2009). *Supporting families whose lives are affected by alcohol or drug problems: risk, resilience and effective interventions*. Paper presented at the Making it Happen Conference, Fremantle, WA.
- Velleman, R., & Templeton, L. (2007). Understanding and modifying the impact of parents' substance misuse on children. *Advances in Psychiatric Treatment*, 13, 79-89.
- Velleman, R. D. B., Templeton, L. J., & Copello, A. G. (2005). The role of the family in preventing and intervening with substance use and misuse: a comprehensive review of family interventions, with a focus on young people. *Drug and Alcohol Review*, 24, 93-109.
- Vimpani, G., & Spooner, C. (2003). Minimising substance misuse by strategies to strengthen families. *Drug and Alcohol Review*, 22, 251-254.
- Vincent, N., Shoobridge, J., Ask, A., Allsop, S., & Ali, R. (1999). Characteristics of amphetamine users seeking information, help and treatment in Adelaide, South Australia. *Drug and Alcohol Review*, 18, 63-73.
- Visher, & Visher. (1979). *Stepfamilies: a guide to working with stepparents and stepchildren*. New York: Brunner/Mazel.
- Vitkovitch, J. (2008). Speech and language skills: their importance in development. *Journal of Family Health Care*, 18, 93-95.
- Volkow, N. D., Chang, L., Wang, G. J., Fowler, J. S., Leonido-Yee, M., Franceschi, D., et al. (2001). Association of dopamine transporter reduction with psychomotor impairment in methamphetamine abusers. *American Journal of Psychiatry*, 158, 377-382.
- von Sydow, K., Lieb, R., Pfister, H., Hoefler, M., & Wittchen, H. U. (2002). What predicts incident use of cannabis and progression to abuse and dependence? A four-year prospective examination of risk factors in a community sample of adolescents and young adults. *Drug and Alcohol Dependence*, 68, 49-64.
- VonSydow, K., Lieb, R., Pfister, H., Hofler, M., Sonntag, H., & Wittchen, H. U. (2001). The natural course of cannabis use, abuse and dependence over four years: a longitudinal community study of adolescents and young adults. *Drug and Alcohol Dependence*, 64, 347-361.

- Wagner, F. A., & Anthony, J. C. (2002). From first drug use to drug dependence: developmental periods of risk for dependence upon marijuana, cocaine, and alcohol. *Neuropsychopharmacology*, 26, 479-488.
- Wakschlag, L. S., Pickett, K. E., Cook, E., Benowitz, N. L., & Leventhal, B. L. (2002). Maternal smoking during pregnancy and severe antisocial behavior in offspring: a review. *American Journal of Public Health*, 92, 966-974.
- Waldorf, D., Reinerman, C., & Murphy, S. (1991). *Cocaine changes: the experience of using and quitting*. Philadelphia: Temple University.
- Walker, C. D., Zangrillo, P., & Smith, J. M. (1991). Parental drug abuse and African American children in foster care: issues and study findings. Washington, DC: US Department of Health and Human Services.
- Walker, C. D., Zangrillo, P., & Smith, J. M. (1994). Parental drug abuse and African American children in foster care. In R. Barth, J. Berrick & N. Gilbert (Eds.), *Child welfare research review* (pp. 109-122). New York: Columbia University Press.
- Wall, M. E., & Perez-Reyes, M. (1981). The metabolism of delta-9-tetrahydrocannabinol and related cannabinoids in man. *Journal of Clinical Pharmacology*, 21, 178-189S.
- Walters, G. D., & Gilbert, A. A. (2000). Defining addiction: contrasting views of clients and experts. *Addiction Research*, 8, 211-220.
- Wang, C. C., & Pies, C. A. (2004). Family, maternal, and child health through photovoice. *Maternal and Child Health Journal*, 8, 95-102.
- Wang, C. C., & Redwood-Jones, Y. A. (2001). Photovoice ethics: perspectives from Flint Photovoice. *Health Education and Behavior*, 28, 560-572.
- Wang, G. J., Volkow, N. D., Chang, L., Miller, E., Sedler, M. J., Hitzemann, R., et al. (2004). Partial recovery of brain metabolism in methamphetamine abusers after protracted abstinence. *American Journal of Psychiatry*, 161, 242-248.
- Weckowicz, T. E., Collier, G., & Spreng, L. (1977). Field dependence, cognitive functions, personality traits, and social values in heavy cannabis users and non-user controls. *Psychological Reports*, 41, 291-302.
- Weckowicz, T. E., & Janssen, D. V. (1974). Cognitive functions, personality traits, and social values in heavy marijuana smokers and nonsmoker controls. *Journal of Abnormal Psychology*, 81, 264-269.
- Weil, A. (1973). Why people take drugs *The natural mind*. Boston: Houghton Mifflin.
- Weitzman, M., Kavanaugh, M., & Florin, M. A. (2006). Parental smoking and children's behavioral and cognitive functioning. In P. Davidson, G. Myers & B. Weiss (Eds.), *Neurotoxicity and Developmental Disabilities*. California: Elsevier Academic Press.
- Welch-Carre, E. (2005). The neurodevelopmental consequences of prenatal alcohol exposure. *Advances in Neonatal Care*, 5, 217-229.
- Welch, S. P. (2005). The neurobiology of marijuana. In J. Lowinson, P. Ruiz, R. Millman & J. Langrod (Eds.), *Substance abuse: a comprehensive textbook* (4th ed., pp. 252-263). New York: Lippincott Williams & Wilkins.
- Weller, R. A., & Halikas, J. A. (1980). Objective criteria for the diagnosis of marijuana abuse. *Journal of Nervous and Mental Disease*, 176, 719-725.

- Wellisch, D. K., & Steinberg, M. R. (1980). Parenting attitudes of addict mothers. *International Journal of the Addictions*, 15, 809-819.
- Western Australian Centre for Evidence Based Nursing and Midwifery. (2007). Management of the Infant with Neonatal Abstinence Syndrome (NAS) - Literature Review Retrieved 30 July, 2007, from http://speciosum.curtin.edu.au/nas/NAS_LitReview.pdf
- Western Australian Police. Retrieved 28 December 2014, from www.police.wa.gov.au/Yoursafety/Alcoholanddrugs/Illicitdrugsandthelaw/tabid/1468/Default.aspx
- Wetherington, C. L., Smeriglio, V. L., & Finnegan, L. P. (Eds.). (1996). *Behavioral studies of drug-exposed offspring: methodological issues in human and animal research*. Maryland: National Institutes of Health.
- Whitbeck, L. B., Simons, R. L., Conger, R. D., Wickrama, K. A. S., Ackley, K. A., & Elder, G. H., Jr. (1997). The effects of parents' working conditions and family economic hardship on parenting behaviors and children's self-efficacy. *Social Psychology Quarterly*, 60, 291-303.
- Wickes, W. (1993). Amphetamines and other psychostimulants: a guide to the management of users. Retrieved 12 December, 2005, from [http://www.health.gov.au/internet/wcms/publishing.nsf/content/health-pubhlth-publicat-drugpubs.htm/\\$file/ndsp7.1.pdf](http://www.health.gov.au/internet/wcms/publishing.nsf/content/health-pubhlth-publicat-drugpubs.htm/$file/ndsp7.1.pdf)
- Wiesbeck, G. A., Shuckit, M. A., Kalmijn, J. A., Tipp, J. E., Bucholz, K. K., & Smith, T. L. (1996). An evaluation of the history of a marijuana withdrawal syndrome in a larger population. *Addiction*, 91, 1469-1478.
- Wilens, T. E., Biederman, J., Kiely, K., Bredin, E., & Spencer, T. J. (1995). Pilot study of emotional and behavioral disturbances in the high risk children of parents with opioid dependence. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34, 779-785.
- Wiley, J. L. (1999). Cannabis: discrimination of "internal bliss". *Pharmacology Biochemistry and Behavior*, 64, 257-260.
- Williams, J. H. G., & Ross, L. (2007). Consequences of prenatal toxin exposure for mental health in children and adolescents. A systematic review. *European Child and Adolescent Psychiatry*, 16, 243-253.
- Williamson, S., Gossop, M., Powis, B., Griffiths, P., Fountain, J., & Strang, J. (1997). Adverse effects of stimulant drugs in a community sample of drug users. *Drug and Alcohol Dependence*, 44, 87-94.
- Wilson, G. S. (1992). Heroin use during pregnancy: clinical studies of long-term effects. In T. Sonderegger (Ed.), *Perinatal substance abuse: research findings and clinical implications* (pp. 224-253). Maryland: Johns Hopkins University Press.
- Wilson, G. S., Desmond, M. M., & Wait, R. B. (1981). Follow-up of methadone-treated and untreated narcotic dependent women and their infants: health, developmental and social implications. *The Journal of Pediatrics*, 98, 716-722.
- Windle, M., & Wiesner, M. (2004). Trajectories of marijuana use from adolescence to young adulthood: predictors and outcomes. *Developmental Psychopathology*, 16, 1007-1027.
- Wisebeck, G. A., & et al. (1996). An evaluation of the history of a marijuana withdrawal syndrome in a large population. *Addiction*, 91, 1469-1478.
- Wittchen, H. U., Frohlich, C., Behrendt, S., Gunther, A., Rehm, J., Zimmerman, P., et al. (2007). Cannabis use and cannabis use disorders and their relationship to mental disorders: a 10-

- year prospective-longitudinal community study in adolescents. *Drug and Alcohol Dependence*, 88, S60-70.
- Woods, N., Eyler, F., Behnke, M., & Conlon, M. (1993). Cocaine use during pregnancy: maternal depressive symptoms and infant neurobehavior over the first month. *Infant Behavior and Development*, 16, 83-98.
- Woods, S. P., Rippeth, J. D., Conover, E., Gongvatana, A., Gonzalez, R., Carey, C. L., et al. (2005). Deficient strategic control of verbal encoding and retrieval in individuals with methamphetamine dependence. *Neuropsychology*, 19, 35-43.
- World Health Organization [WHO]. (1997). Cannabis: a health perspective and research agenda Retrieved 14 August, 2012, from http://whqlibdoc.who.int/hq/1997/WHO_msa_PSA_97.4.pdf
- World Health Organization [WHO]. (2004). Neuroscience of psychoactive substance use and dependence Retrieved 1 June, 2006, from http://www.who.int/substance_abuse/publications/en/Neuroscience.pdf
- Wouldes, T., LaGasse, L., Sheridan, J., & Lester, B. (2004). Maternal methamphetamine use during pregnancy and child outcome: what do we know? *New Zealand Medical Journal*, 117. Retrieved from <http://www.nzma.org.nz/journal/117-1206/1180/content.pdf>
- Wright, S., & Klee, H. (2001). Violent crime, aggression and amphetamine: what are the implications for drug treatment services? *Drugs: education, prevention and policy*, 8, 73-90.
- Xian, H., Scherrer, J. F., Grant, J. D., Eisen, S. A., True, W. R., Jacob, T., et al. (2008). Genetic and environmental contributions to nicotine, alcohol and cannabis dependence in male twins. *Addiction*, 103, 1391-1398.
- Yamaguchi, K., & Kandel, D. P. (1984). Patterns of drug use from adolescence to young adulthood III: Predictors of progression. *American Journal of Public Health*, 74, 673-681.
- Yin, R. K. (1994). *Case study research. Design and methods*. (2nd ed.). London: Sage Publications.
- Young, N. K. (1997). Effects of alcohol and other drugs on children. *Journal of Psychoactive Drugs*, 29, 23-42.
- Young, N. K., Wallace, V. R., & Garcia, T. (1992). Developmental status of three to five year-old children who were prenatally exposed to alcohol and other drugs. *School Social Work Journal*, 16, 1-15.
- Young, S., & West, S. (1985). Factors influencing the onset of substance abuse: a chronological review of the literature, 1973-1983: Final report to Utah State Division of Alcoholism and Drugs.
- Zilberman, M. L., & Blume, S. B. (2005). Drugs and women. In J. Lowinson, P. Ruiz, R. Millman & J. Langrod (Eds.), *Substance abuse: a comprehensive textbook* (4th ed., pp. 1064-1075). New York: Lippincott Williams & Wilkins.
- Zimmer, L., & Morgan, J. P. (1997). *Marijuana myths marijuana facts*. New York: The Lindesmith Center.
- Zimmerman, F. J., Gilkerson, J., Richards, J. A., Christakis, D. A., Xu, D., Gray, S., et al. (2009). Teaching by listening: the importance of adult-child conversations to language development. *Pediatrics*, 124, 342-349.

- Zinberg, N. E. (1984). *Drug, set, and setting. The basis for controlled intoxicant use*. New Haven: Yale University Press.
- Zuckerman, B. (1993). Medical and developmental impact of prenatal drug exposure. *The Future of Children*, 210-212. Retrieved from http://www.futureofchildren.org/usr_doc/vol3no2ART12.PDF
- Zuckerman, B., Amaro, H., & Beardslee, W. (1987). Mental health of adolescent mothers: the implications of depression and drug use. *Journal of Developmental & Behavioral Pediatrics*, 8, 111-116.
- Zuckerman, B., & Frank, D. A. (1992a). "Crack kids": not broken. *Pediatrics*, 89, 337-339.
- Zuckerman, B., & Frank, D. A. (1992b). Prenatal cocaine and marijuana exposure: research and clinical implications. In I. Zagon & T. Slotkin (Eds.), *Maternal substance abuse and the developing nervous system* (pp. 125-153). New York: Academic Press.
- Zuckerman, B. S., & Beardslee, W. (1987). Maternal depression: an issue for pediatricians. *Pediatrics*, 79, 110-117.
- Zweben, J. E., Cohen, J. B., Christian, D., Galloway, G. P., Salinardi, M., Parent, D., et al. (2004). Psychiatric symptoms in methamphetamine users. *American Journal on Addictions*, 13, 81-90.

Appendices

Appendix A - Glossary of Terms and Local Slang

| Term | Definition |
|--------------------------------|---|
| 25 | \$25 worth of cannabis; a small bag. |
| Aggro | Aggressive. |
| Arvo | Afternoon. |
| Bent | Intoxicated; under the influence of cannabis or other drugs. |
| Benzo's | Benzodiazepines; prescription drugs that have a hypnotic and sedative action, used mainly as tranquilizers, to reduce anxiety or induce sleep. |
| Billy | A bong. |
| Blow | Cocaine. |
| Bogan | In Western Australia bogans were originally a youth culture embracing heavy metal music and high performance Australian cars. The term 'bogan' is a variant of the word 'bodgie', an old Australian word for 'rocker.' A bogan typically wore black jeans, desert boots, flannelette shirts and blue singlets or black t-shirts. The term has become synonymous with 'white trash'. |
| Bong | Water-filled smoking implement (made from glass, plastic, or aluminium) which cools the cannabis smoke before it enters the lungs. |
| Bucket; Bucket bong | Gravity-bong; a home-made smoking implement that uses gravity and air pressure to draw the smoke into a large chamber (usually a 2 litre plastic bottle) and then expels it quickly into the lungs. Gives much larger hits than most implements, allowing the user to get quite stoned very quickly with a relatively small amount of cannabis. |
| Buds | The flowering heads or tops of the cannabis plant that contain the greatest concentrations of THC. |
| Bush; Bushy; | Slang for cannabis grown outdoors, which often has lower levels of THC |

| Term | Definition |
|---------------------------------------|--|
| Bush weed; bush buds | than indoor hydroponically grown strains due to being harvested before it reaches its full potential. |
| The bush | Areas of Australian land that have not been developed. |
| Chill; Chill out | Relax. |
| Choof | To smoke marijuana. |
| Cone | The cone is the small metal or glass bowl in which cannabis is placed for burning so that it can be smoked in a bong. |
| Crack | Local slang for amphetamine-type stimulants, usually crystal methamphetamine. |
| Cruisers | Premixed alcoholic drinks |
| Dexies | Dexamphetamine; treatment for ADHD. |
| Dob | Australian slang for reporting someone to an authority such as police |
| DOCS | Child welfare authority in New South Wales |
| Dope | Cannabis. |
| Drug bus | Police department mobile drug testing unit |
| Emo | Youth subculture embodying emotional sensitivity |
| Foil | Approximately AU\$25 worth of cannabis (usually 0.6 to 0.8 of a gram) usually shaped like a stick and wrapped in aluminium foil. |
| Gastro | Gastroenteritis; stomach bug resulting in diarrhoea, vomiting, and abdominal cramps |
| Glass pipe | Used to smoke methamphetamine rather than cannabis. |
| Go; Goey | Amphetamine-type stimulants. |

| Term | Definition |
|-----------------------|---|
| Gravity bong | Bucket bong. |
| Graylands | The largest mental health inpatient facility in Western Australia. |
| Grow lights | Fluorescent lighting used to stimulate plant growth |
| Hammer | Heroin |
| Hash (hashish) | Firmly pressed resin from the cannabis plant; more potent than marijuana. |
| Hash oil | Sticky, honey coloured oil extracted from the cannabis plant; the most potent form of cannabis being high in concentrated THC. |
| Heads | The flowering tops of the cannabis plant that contain the greatest concentrations of THC. |
| Heavy | Serious. |
| Heebie-jeebies | A feeling of anxiety, nervousness, apprehension, can be experienced during withdrawal from illicit drugs. |
| High | A euphoric state induced by alcohol or drugs, including cannabis. |
| Hydro; Hydrie | Indoor hydroponically grown cannabis; sinsemilla. |
| Ice | Methamphetamine; crystal meth. |
| Joint | Hand-rolled marijuana cigarette. |
| Junkie | A derogatory term once reserved for heroin addicts; refers to any individual whose drug use is the central feature of their life. |
| Leaf | Refers to cannabis leaves as opposed to the flowering tops or buds that contain greater concentrations of THC. |
| Leavers | A contemporary 'coming of age' tradition in which young people go away to celebrate "leaving" high school. Celebrations usually include the |

| Term | Definition |
|----------------------------|--|
| | consumption of AOD. |
| Marijuana | Cannabis preparations intended for consumption; the dried buds or leaves of the cannabis plant. |
| Mellowing out | Relaxing; settling down. |
| Mull | Marijuana that has been finely cut up ready for smoking. |
| Mull relationship | Ongoing and regular cannabis use. |
| Mulling up | Cutting the cannabis buds up in preparation for smoking them. |
| Munchies | Urge to eat, particularly junk food, when stoned. |
| Naffed | Polite British slang for fucked; in context of cannabis use refers to being quite intoxicated. |
| Northbridge | Inner city area in Perth, Western Australia, where the majority of nightclubs operate. |
| Off your chops/face | Under the influence of drugs or alcohol. |
| Ounces | Lunch bag size bags of cannabis containing approximately 30 grams; currently selling for approximately \$300 each in Perth. |
| Oxycontin | An opioid analgesic (prescription drug) used primarily in the treatment of pain. |
| Panadol | Paracetamol. |
| Pot | Marijuana. |
| Pulling cones | Refers to the act of smoking cannabis through a bong. The cone is the small metal or glass bowl in which cannabis is placed for burning. |

| Term | Definition |
|---|--|
| Ripped | Intoxicated; under the influence of cannabis or other drugs. |
| Rock | Methamphetamine; crystal meth. |
| Rollies | Hand-rolled tobacco cigarettes |
| Sinsemilla | A highly potent form of marijuana obtained from unpollinated female plants. |
| Slow | Drugs that have a hypnotic and sedative action; tranquilizers; heroin and other opiates. |
| Smack | Heroin. |
| Speed | Refers to amphetamine-type stimulants |
| Spin out; spinning out | Stressed out; to experience anxiety associated with cannabis use or with the inability to obtain cannabis or other drugs. |
| Stash | Supply of drugs. |
| Stick | Approximately AU\$25 worth of cannabis (usually 0.6 to 0.8 of a gram) usually shaped like a stick and wrapped in aluminium foil. |
| Stick up | Divide the cannabis into \$25 quantities wrapped in aluminium foil for resale. |
| Stoned | Under the influence of cannabis. |
| Stoner | An individual who smokes cannabis regularly. |
| Straight | Refers to someone who is not under the influence of drugs or alcohol. |
| Straight cut; straight-liners; straighties | People who don't use cannabis or other illicit drugs. |
| Toke; Toking | Smoking cannabis. |

| Term | Definition |
|---------|----------------------------------|
| Wagging | Skipping school. |
| Whacked | Under the influence of cannabis. |
| Weed | Marijuana. |

Appendix B - Research Flyer

Research Project**Learning from Parents who use Cannabis**

I am currently undertaking a PhD in Clinical Psychology at Edith Cowan University. For my PhD research project I will be conducting a series of family case studies examining the role of cannabis use in the family context.

I am interviewing parents (cannabis users and their partners) to discuss their perceptions about the benefits and harms associated with cannabis use.

I will also be talking to adolescent children in the family. Discussions with children will occur in the context of a discussion about family life in general.

I will not be talking to children about cannabis use, and parental cannabis use will not be discussed nor disclosed (except where parental consent is obtained in those cases where adolescent children are already aware of their parent's cannabis use).

Participating families are required in which:

- one or both parents regularly use cannabis (this means at least once a week for the past 6 months or more) but do not regularly use other illegal drugs;

and

- there is currently at least one child aged between 12 and 20 years living at home.

IN APPRECIATION of their time and effort, each participating family member will receive a \$20 gift voucher (up to a maximum of four per family).

To be involved or obtain more information about this research, please contact:

KATH DONOGHUE, PHD CANDIDATE, EDITH COWAN UNIVERSITY

PHONE: XXXX XXXX (9AM – 3PM MOST DAYS OR LEAVE A MESSAGE)

MOBILE: 0439 956 673 (YOU CAN TEXT ME)

Appendix C - Media Release

Edith Cowan University
Corporate Communications



ECU Media Release

5 March 2008

ECU study looks at parents who use cannabis

ECU's School of Psychology is conducting a series of family case studies to examine the impact of cannabis use on families.

This study aims to identify the benefits, harms, and risks associated with parental cannabis use from the perspective of cannabis users and their families.

Researchers are also hoping to identify and describe any harm reduction strategies adopted by cannabis users who are raising adolescent children.

Harm reduction strategies are things people do to minimise harm to themselves, their children, and others.

Findings from the study will contribute to a larger program of research into the use of drugs and alcohol in the context of family and parental roles.

ECU is looking for participants from families in which one or both parents are regular cannabis users, and where there is at least one adolescent or young adult child currently living in the family home.

Parents will be invited to discuss their thoughts about cannabis use, and adolescent children will be invited to talk about family life in general.

Parental cannabis use will not be disclosed to children by the researcher, and will not be discussed with adolescent children except in families that are open about their use and where parental consent has been specifically obtained.

The identity of research participants will be kept strictly confidential and each participating family member will receive a \$20 gift voucher in appreciation of their time.

If you wish to be involved in this research or obtain further information, please contact Kathleen Donoghue on (08) 6304 3840 or 0439 956 673 or email kdonoghue@student.ecu.edu.au. Dr Greg Dear can also be contacted via email g.dear@ecu.edu.au.

- ends -

Media contact: Theresa Hingston, ECU Corporate Communications, on (08) 6304 2288 or 0417 950 245.

ECU strives to develop valued citizens for the benefit of Western Australia and beyond, through teaching and research inspired by engagement and partnerships. ECU is Western Australia's second largest university with 20,600 students across two metropolitan campuses and a regional campus in Bunbury.

Website: <http://www.ecu.edu.au/pr>

Appendix D - Letter of Introduction**THE REDUCTION OF CANNABIS-RELATED HARM IN FAMILIES WITH PARENTAL CANNABIS USE**

[Insert date here]

Hi,

My name is Kath Donoghue and I am a post-graduate student at Edith Cowan University in the School of Psychology. My PhD research involves a series of family case studies exploring cannabis use in the family. Participants will be families in which at least one parent regularly (i.e., at least once a week for a period of six months or longer) uses cannabis, and limited to families that currently include adolescent children living in the family home. Whilst parents will be interviewed about their perceptions of cannabis use, adolescent children will be invited to talk generally about life in their family rather than about cannabis use per se. Hence, **parental use of cannabis will not be disclosed**. Cannabis use will only be discussed with adolescents when parental consent has been obtained in cases where families are already open about parental cannabis use.

This research has two aims: (1) to identify the benefits, harms, and risks associated with parental cannabis use from the perspective of consumers and their families, and (2) to describe any harm reduction strategies (i.e., ways of minimising cannabis-related harm to themselves, their children, and others) adopted by cannabis users who are raising adolescent children.

Findings from this study will contribute to an ongoing program of research being undertaken at Edith Cowan University. This research focuses on the use of drugs and alcohol within the context of family and parental roles, and seeks to inform theoretical models about the psychology of addiction and the psychology of parenting. Information obtained from the present study will contribute to the development of harm reduction resources that are potentially relevant to you and your family. For this reason it is important that consumer perspectives are included.

I have attached a copy of the Participant Information Sheet/Interviewer's Agreement. If you wish to be included in the study, or have any questions about the research, please make contact with me. You can speak to me (or leave a message) on 6304 5087 or 0439 956 673 [I will call you back to keep your costs down]. Alternatively, you can make contact by emailing me at kdonoghue@student.ecu.edu.au.

This research has been approved by the Edith Cowan University Human Research Ethics Committee and the Faculty of Computing, Health, and Science. The resulting research paper will be available by request to interested participants.

The project will be supervised by Dr Greg Dear, from the School of Psychology at Edith Cowan University, Joondalup campus. Dr Dear can be contacted on 6304 5052 or by email at g.dear@ecu.edu.au.

Yours sincerely,

Kathleen Donoghue,
PhD Candidate,
Edith Cowan University

Appendix E - Participant Information Sheet/Interviewer's Agreement for Parents**PARENTS**

- ☐ Interviews will be conducted by the researcher, Kath Donoghue, and will be recorded on audio tapes.
- ☐ Adult family members will be interviewed about their perceptions of cannabis use, and adolescent children will be invited to talk generally about life in their family rather than about cannabis.
- ☐ Each interview and family discussion is expected to take approximately an hour.
- ☐ To provide feedback about the accuracy of the researcher's interpretations, some participants will be invited to provide a shorter follow-up interview after the data has been analysed.
- ☐ In return for participation, each family will receive a thank-you package consisting of \$30 cash, together with free passes to the movies for each family member.
- ☐ Participation is voluntary and you have the right to withdraw your consent to participate at any stage of the interview and/or research process. You can also refuse to answer specific interview questions.
- ☐ Research reports will use pseudonyms and material will be presented in ways that avoid the use of potentially identifiable information. Only the interviewer will know the identity of participants. Apart from the researcher, only the research supervisor will have access to confidential materials. Other researchers will have access only to de-identified data (i.e., no identifiable information will be included) for the purposes of verifying or reanalysing the data.
- ☐ Audio-recordings will be destroyed upon completion of accurate interview transcripts.
- ☐ Should you require (or request) counselling as a consequence of your interview, you will be assisted to obtain appropriate counselling through local specialist services. Counselling will not be conducted by the researcher or research supervisor.
- ☐ In terms of child welfare concerns, the same limits of confidentiality apply to this research as in any other setting. Should child welfare concerns arise they will be discussed directly with the participant immediately following closure of the interview. The researcher will discuss child welfare concerns with the research supervisor and will provide the participant with appropriate referral/s to address child welfare issues.
- ☐ Parents will be asked to provide their verbal consent for adolescent children in the family to be interviewed, and will be invited to be present during such discussions.
- ☐ Cannabis use will not be discussed with adolescents without the explicit consent of their parents.
- ☐ Concerns about the interviewer's conduct or any aspect of the research should be directed to:

Research Ethics Officer
 Edith Cowan University
 100 Joondalup Drive
 JOONDALUP WA 6027
 (08) 6304 5724
research.ethics@ecu.edu.au

Signed: Dated:

Kathleen J. Donoghue
 Edith Cowan University

Appendix E - Participant Information Sheet/Interviewer's Agreement for Adolescents**ADOLESCENTS**

- ☐ Interviews will be conducted by the researcher, Kath Donoghue, and will be recorded on audio tapes.
- ☐ The focus of family discussions or interviews will be on your family life.
- ☐ Each interview or family discussion is expected to take approximately an hour.
- ☐ To provide feedback about the accuracy of the researcher's interpretations, some participants will be invited to provide a shorter follow-up interview after the data has been analysed.
- ☐ In return for participation, each family will receive a thank-you package consisting of \$30 cash, together with free passes to the movies for each family member. This will be given to your parent.
- ☐ Participation is voluntary and you have the right to withdraw your consent to participate at any stage of the interview and/or research process. You can also refuse to answer specific interview questions.
- ☐ You will be given a disposable camera and asked to take some photographs that will help to focus our discussion on important aspects related to your family. The photographs that you take will not form part of the research and will be yours to keep.
- ☐ Research reports will use pseudonyms and material will be presented in ways that avoid the use of potentially identifiable information. Only the interviewer will know the identity of participants. Apart from the researcher, only the research supervisor will have access to confidential materials. Other researchers will have access only to de-identified data (i.e., no identifiable information will be included) for the purposes of verifying or reanalysing the data.
- ☐ Audio-recordings will be destroyed upon completion of accurate interview transcripts.
- ☐ Your parents have provided their consent for you to be interviewed, and they will be invited to be present during any research interviews or discussions we have with you.
- ☐ Concerns about the interviewer's conduct or any aspect of the research should be directed to:

Research Ethics Officer
Edith Cowan University
100 Joondalup Drive
JOONDALUP WA 6027
(08) 6304 5724
research.ethics@ecu.edu.au

Signed: Dated:

Kathleen J. Donoghue
Edith Cowan University

Appendix F - Demographic Information Sheet**DEMOGRAPHIC INFORMATION**

Interview No: _____ Date Conducted: _____
 Family No: _____ Pseudonym: _____

PERSONAL INFORMATION

Age of respondent: _____ years Sex of respondent: male / female
 Marital status: single / married / de facto / separated / divorced
 Living arrangements: Renting / Homeswest / own home (incl. mortgaged) / sharing
 Homeless / Living with parents / other: _____
 Ethnicity: _____
 Source of income: Social Security: PPS / DSP / Newstart /
 Employed: part-time / full-time / casual
 Partner employment / other: _____
 Income: Approx. \$per annum
 Position in family: mother / father / dependent child / other: _____
 No. & Ages of children: _____

DRUG USE HISTORY

Type of cannabis: _____
[as described verbatim by client, e.g., good head, just leaf, hash oil, hydro.]
 Usual method of delivery: _____
[e.g., smokes joints [details of quantity/size indicated by number of papers used, whether mixed with tobacco or not], uses a bong, herbaliser, bucket-bong, eats cookies]
 Length/history of use: _____
 Frequency of current use: _____ Last Use: _____
 Regularly uses with: partner / friends / alone / children present / parents /
 other: _____
 Used when pregnant: yes / no

Other drug use:

| | | |
|-----------------------|----------|-----------------|
| cigarettes | yes / no | last use: _____ |
| alcohol | yes / no | last use: _____ |
| tranquilizers/benzo's | yes / no | last use: _____ |
| amphetamines | yes / no | last use: _____ |
| heroin | yes / no | last use: _____ |
| ecstasy | yes / no | last use: _____ |
| other: _____ | | last use: _____ |

Appendix G - Interview Protocol

INTERVIEW PROTOCOL

PREAMBLE

With the **tape recorder ON**, the researcher will introduce herself and address the **informed consent** issues outlined in Appendix B. One signed copy of Appendix B will be given to the adult participant, and the researcher will use a second copy as a checklist. After outlining each point, the participant will be invited to ask questions and to verbally confirm that they wish to continue as informed participants in the research being conducted.

Cannabis users will be asked to think about their own use, whilst non-using partners will be asked to think about their partner's use within the family context. Cannabis use will only be discussed with adolescents when parental consent has been obtained and in those cases where families are open about parental cannabis use. As most parental cannabis use is likely to be a well-guarded secret most adolescent children will be invited to talk generally about life in their family rather than about cannabis use per se. Hence, there are two distinct sets of interview questions – those that relate to cannabis use and those that relate purely to family life. Irrespective of which set of questions are being used, interviews will be semi-structured only, such that questions will be asked as and when appropriate during the interview, rather than in any strict order.

CANNABIS-RELATED INTERVIEW QUESTIONS

1. Tell me about how cannabis use fits into your current lifestyle. Tell me how you incorporate your [or your partner's] cannabis use into a typical week, day, or weekend. Are some days more difficult in this regard than others? Describe for me a typical weekend, school morning, or evening.
2. Tell me about some of the benefits you [or your partner or parent] gets from using cannabis. *Benefits* are the things you/they enjoy about using cannabis. For example, how it makes you/them feel or how it enhances your/their activities. Prompts will be used to elicit further benefits.
3. It has been helpful to hear about the rewarding aspects of your/their cannabis use, tell me about any harms that you think come from your/their cannabis use. *Harm* refers to the less good things about using cannabis, the things you would prefer didn't happen. For example, coughing, the cost of buying it, or lying to people. Prompts will be used to elicit further harms.
4. Tell me about anything you [think they] do or have done to reduce this type of harm or avoid this happening? What about families who aren't doing as well as yours – what could they be doing in this regard?
5. Have there been times when you have felt a need to reduce or change your cannabis use? If so, what was happening for you or your family?

NON-CANNABIS-RELATED INTERVIEW QUESTIONS FOR ADOLESCENTS

1. All families are different, and I am trying to understand what it is like being in your family. If you could identify five things that would define your family, what would they be.
2. Tell me about the photos that you have taken.
3. It has been helpful to hear about the good things about being in this family. I wonder if you can tell me whether there are things about being in this family that are maybe not so good.
4. Tell me about a typical week, weekend, school morning, or evening.

Appendix G – Interview Protocol (page 2 of 2)**EXAMPLES OF PROBES (TO BE USED AS AND WHEN APPROPRIATE)**

Tell me about a particular occasion when that happened.

Tell me about a particular occasion when you/they recently used cannabis.

How typical was that?

Tell me more about how that came about.

How did you feel when that occurred?

What is the usual routine at this time?

Tell me a bit about more about [whatever the person mentioned]

What were you thinking about when this was going on?

How were you feeling at this time?

Do you think that HR strategy worked? If so/not, why?

Are you always able to do that [implement the strategy]. If not, why not?

In the situation you have just described, what ended up happening?

How typical is that outcome for that type of situation?

Is there anything you would do differently on the next occasion?

What do you think would have helped you in that situation?

CLOSING STATEMENTS

- ☐ Is there anything further you need to know about the research, the topic, or the questions?
- ☐ Do you feel there are any issues not dealt with properly or that require further clarification?
- ☐ Do you have anything you would like to add or say about the research, the topic, or your answers to the questions?
- ☐ Did you find the experience difficult and do you have any suggestions for a better way of doing this in the future?
- ☐ If the interviewee is a cannabis user, offer to leave an information pack (including Health Department resources, fact sheets about cannabis use, and useful contacts for services and further information).
- ☐ Arrange referrals for counselling, if required.
- ☐ Do you know any other families who might be willing to participate? (If so, offer to leave introductory letters).
- ☐ Ask for confirmation that the conditions of participation and consent were met as expected.
- ☐ Explain what will happen with the interview data, including the possible need for follow-up interviews, and for some participants to provide feedback on overall research findings. If willing to assist with this, explain the anticipated timeframe for feedback and the need to retain contact details for this purpose.
- ☐ Offer to forward copies of literature review and research report when available. For confidentiality purposes, participants would be placed on a mailing list for this purpose and identified as an interested community member rather than a participant.
- ☐ Thank participants, and arrange next interview.
- ☐ Leave disposable camera and/or thank-you package.