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Health educational needs of middle aged men

Beth L. Hall
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Health Educational Needs of Middle Aged Men

by

Beth Louise Hall

BHSc(Nursing) 2nd Class Hons

A Thesis Submitted in Partial Fulfillment of the

Requirements for the Award

of

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USE OF THESIS

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

DECLARATION

I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution of higher education; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where reference is made in the text.

ABSTRACT

The purpose of this non-experimental, quantitative descriptive study was to identify the holistic health educational needs of middle aged men and to consider nursing interventions.

Between the ages of forty to sixty years, physical illness can coincide with a cluster of social changes as well as the normal developmental mid-life review. This can result in a prolonged period of physical and emotional stress (Berger, 1994). Mortality statistics demonstrate that, in comparison to women, men in the 25 to 64 age group have higher rates of suicide, motor vehicle accidents, work place injuries, ischaemic heart disease, non gender specific cancers, and alcohol consumption than women. With a disease oriented health system, the total health care needs of men which include prevention and maintenance of health, appear not to be currently addressed (Pearson, 1993).

A convenience sample of seventy Caucasian men aged 40 - 60 years living in a metropolitan area formed the study group. All participants completed the National Wellness Institute, Wisconsin, USA, Lifestyle Assessment Questionnaire. This comprehensive educational/assessment tool holistically examined lifestyle, wellness behaviours, and health risk status.

Analysis of the group report has provided indicators of the health educational needs of this group. Knowledge deficits and health topics of interest have been identified.

Recommendations include the need for health professionals to be educated, so that they understand the complex sociological, psychological and political variables that influence men's ability to seek, obtain and maintain health at different age differentials. In addition, further research in to the development of gender and age specific health educational materials and programmes is recommended.

TABLE OF CONTENTS

Abstract	i
Declaration	ii
Acknowledgments	iii
List of Tables	x
List of Figures	xi
<u>Chapter</u>	
I INTRODUCTION	1
Background to the study	1
Significance of this study	5
The purpose of the study	7
Research questions	8
II REVIEW OF LITERATURE	9
The developmental perspective of middle age (mid-life)	10
The Australian perspective	21
The effects of constant change	23
Men's perception of depression	24
Father hunger	26
Nutritional knowledge and obesity	30
The Gutbuster weight loss programme	32
The identification of health educational topics of interest to men	33
The Tasmanian Community Men's Health Education Model	34
Innisfail Hospital Community Men's Health Programme	36
The South Australian studies	38
The development of health educational materials for men	42
Addressing men's knowledge deficits	45
Summary	46
III THEORETICAL FRAMEWORK	48
IV RESEARCH DESIGN AND METHODOLOGY	51
Design	51

Sample	51
Instrument	51
Pilot study	55
Procedure	56
Data Analysis	58
The ethical implications	58
The limitations of this study	59
V RESULTS	60
Section 1: Personal data and demographics	60
Source of sample population and response rates	60
Sample population	61
Employment, occupation, education, income status	61
Time spent watching television	63
Marital status	64
Perception of health status prior to completing the LAQ	65
Identification of serious illness	65
The availability of men's health information	65
Section 2: Lifestyle Assessment	66
Section 3: Health risk appraisal	68
The identification of inherited risk factors	70
Respondent's knowledge of blood pressure data	70
Smoking habit assessment	71
Seat belts and drink driving	72
Alcohol consumption patterns	73
Assessment of self care behaviours	74
Obesity, malnutrition and frequency of exercise	75
Consumption of high fibre and high cholesterol foods	76
Perceptions of health status	77
Assessment of stress levels	77
Section 4: The identification of topics of interest	79
Summary	81

VI	DISCUSSION & RECOMMENDATIONS	82
	Section 1: Personal data and demographics	82
	Sample population	82
	Employment status	82
	Occupation	82
	Education, and financial status	83
	Perceptions of health status	84
	Time spent watching television	84
	Marital status	85
	Section 2: Lifestyle Assessment	85
	Comparison of Australian group wellness with American LAQ reference group	86
	Section 3: Health Appraisal	87
	Smoking	88
	Male risk taking behaviour	88
	Prostate and testicular examination	89
	Exercise obesity and nutrition	90
	Section 4: Identification of topics of interest	91
	Selecton of topics of interest	91
	Topics of interest identified in Australian research	93
	The availability of men's health information	93
	Using the LAQ as an educational tool	95
	Implications for nursing	98
	The availability of information on men's health issues	98
	Recommendations for nursing education	99
	Recommendations for future research	104
	Changes that should be made in the questionnaire	104
	Men's health research topics	105
	Development of software for health and wellness research	106
	Recommendations for nursing practice interventions	106
	Nursing roles for graduates of a Master of Nursing Men's Health Programme	106

Addressing parenting issues and providing support for parents during pregnancy	108
The Occupational Health Nurse	109
Health-Wellness Advisor and educator role in the community	109
The role of the school nurse	110
The production and availability of men's health educational materials	111
Promotion of men's health information	112
Men's health policy	112
Summary	113
REFERENCES	116
BIBLIOGRAPHY	129
APPENDICES	135
A The instrument: Australian demographics and LAQ	135
B Letter: Request to use LAQ as instrument	136
C Copy of licence to use LAQ software	137
D Sample of individualised LAQ report	138
E Letter of invitation to participate (Human Resource Managers)	139
F Letter of invitation to participate (Researcher)	140
G Consent Form	141
H Letter of clearance to proceed with study from ethics committee	142
I Format for questionnaire follow up letter	143
J Classification of blue and white collar workers	144
K Research Budget	145

List of Tables

Table 1: The ten central mandates of manhood	28
Table 2: The five major mid-life challenges for men	28
Table 3: Men's health issues and topics of interest	36
Table 4: Ten crucial elements of men's health policy and education	41
Table 5: Source of respondents	60
Table 6: Sample distribution by age group	61
Table 7: Occupation	62
Table 8: Level of education	63
Table 9: Income	63
Table 10: Hours spent watching television on an average day	64
Table 11: Marital status	64
Table 12: Do you find it difficult to obtain men's health information?	65
Table 13: Australian group wellness section scores	66
Table 14: Australian group lifestyle assessment scores	67
Table 15: Identified major risk factors for group and number at risk	68
Table 16: Group top ten risks of death	69
Table 17: Family history of diabetes or heart disease	70
Table 18: Knowledge of blood pressure recordings	71
Table 19: Smoking habits	71
Table 20: Driving behaviours	72
Table 21: Alcohol consumption patterns	73
Table 22: Timing of prostate examination by age group	74
Table 23: Knowledge of testicular self examination by age group	75
Table 24: Frequency of testicular examination	75
Table 25: Cardiovascular exercise activity	76
Table 26: Degree and distribution of obesity in the group	76
Table 27: Perceived health status	78
Table 28: Serious loss within the past year	78
Table 29: Witness of or presence in an angry altercation	79

Addressing parenting issues and providing support for parents during pregnancy	108
The Occupational Health Nurse	108
Health-Wellness Advisor and educator role in the community	109
The role of the school nurse	110
The production and availability of men's health educational materials	111
Promotion of men's health information	112
Men's health policy	112
Summary	113
REFERENCES	116
BIBLIOGRAPHY	129
APPENDICES	135
A The instrument: Australian demographics and LAQ	135
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F Letter of invitation to participate (Researcher)	140
G Consent Form	141
H Letter of clearance to proceed with study from ethics committee	142
I Format for questionnaire follow up letter	143
J Classification of blue and white collar workers	144
K Research Budget	145

Table 30: Satisfaction with life	79
Table 31: Topics of interest for personal growth	80
Table 32: Comparison of Australian wellness scores with LAQ group	85

List of Figures

Figure 1: Classic system elements within General Systems Theory	49
Figure 2: Topics identified to be of interest to men in Australia	92

Chapter I

INTRODUCTION

Background to the study

Despite 21 billion dollars spent annually on Australian health care, advances in medical technology, and the availability of anti cancer, Quit smoking and heart health promotional programs, the two main causes of death for men aged 45 - 64 years are circulatory diseases and cancer (Smith, 1994). Men aged 25 to 64 years have a death rate nearly twice that of women the same age. The rates for heart disease and suicide are three and a half times higher, lung cancer are three times higher and traffic accidents more than two and a half times higher. Furthermore, the incidence of obesity, alcohol and drug abuse, antisocial behaviour, smoking, and participation in risk taking behaviour has been found to be disproportionately higher for men when compared with women in this age group (Hamilton, 1996; Mathers, 1995; Mc Kimmie, 1996; Prenesti, 1995b).

At the first government sponsored National Men's Health Conference held in Melbourne in 1995, the mental health of men was identified to be a key issue. Mental disorders prevalent in men include depression, alcohol and drug abuse, as well as antisocial behaviour. Delegates reported that these disorders appear to be associated with role confusion, divorce, an inability to maintain the dominant bread winner status, perceptions of failure, unemployment, and resistance to change. Men do not readily verbalise emotional issues. This means that the associated frustration and anger may lead to the perpetration of physical abuse, homicide or suicide (Biddulph, 1994a, Huggins, 1995; Jorm, 1995; Prenesti, 1995a; O'Hehir, 1995a; Tannenbaum, 1995).

In 1994, 81% of the 2081 suicides recorded in Australia were men, making suicide the leading cause of death for men aged 12 - 60 years (Biddulph, 1994b). While age-specific men's health research is in its infancy, rural South Australian men have been identified as disproportionately at risk of death from risk taking behaviour, injuries, poisonings, motor vehicle accidents and suicide (Bentley & Booth, 1994; O'Hehir, 1995a). Evidence suggests that men will commit over 90% of convicted acts of violence; that 90% of children with behavioural problems are boys; that 80% of children with learning difficulties are boys; and that by the time a boy reaches 18 years of age, there is a 1 in 7 chance of him having been sexually assaulted by an adult or older child (Bentley & Booth, 1995; Biddulph, 1994b).

Tickell (1993, 1995) considers that men should be aware that in any audience of males only 10% will die due to accidents. Lifestyle choice and male specific behaviour will account for 80% of deaths, and only 10% will die of old age (Tickell, 1993, 1995). This combination of self inflicted injury, lifestyle associated disease processes, and the high incidence of lung, prostate and stomach cancer means that men have a 1:7 chance of dying before reaching the age of 74 years. Women by comparison, have a life expectancy of 84 years. The gender gap in mortality rates has doubled since the early 1900s and yet men continue to utilise health facilities and consult health professionals less than women (Fareed, 1994; Fitzpatrick, 1994; Jackson, 1991; Lyall & Smith, 1994; Maslen, 1995; McKendrick, 1993; McKimmie, 1994a).

Biological factors, cultural expectations, perceptions of invincibility, unhealthy lifestyles, and macho behaviour have all been identified as contributing to gender differences in life expectancies. Differences in mortality rates however, may also be associated with the individual's psychosocial environment. In addition, mortality rates

may be a reflection of emotional repression, socialisation, and inadequate resource and support facilities for men (Baxter, 1990; Hamilton, 1996; O'Hehir, 1994a, b, 1995; Pemble, 1995; Power, Manor & Fox, 1991; Strickland, 1988; Verbrugge, 1989).

Statistically, the most dangerous decade for men is between the ages of 45 - 55 years (Tickell, 1993, 1995). Illness at this time may also coincide with the potentially stressful, developmentally significant, mid-life reassessment (Brewer, 1995; Craig, 1990; Llewellyn-Jones, 1986). Sandwiched between two generations that may need financial support, it is also a time when clusters of change can occur. These include the death of relatives, children leaving home, wives resuming their education, solo fatherhood, and real or threatened redundancy at work (Beck, 1994; Clay, 1989; Day, 1995a; Hamilton, 1994; Kidman, 1995; Lambley, 1995).

Socialised to suppress emotions, ignore physical discomfort, to be self sufficient, and in control at all times, emotional issues and symptoms of illness are often ignored. Many men find it difficult to approach mainstream health, education and/or welfare services for information, education, treatment, or support for fear of being seen to be effeminate. While it has been perceived that a health system designed by men must be good for men, it appears that men's health needs in general, and mental health needs in particular, are not being met within the current disease orientated health system (Alexander, 1992; Buchbinder, 1995; Fletcher, 1993a, 1995; Maizey, 1995; McMillan, 1992; Moore, 1995; O'Hehir, 1995a; Pearson, 1993; Winning, 1994).

There is anecdotal evidence, however, that men and women aged in their fifties are actively seeking information about their bodies and disease processes. In addition, they are demonstrating a desire to learn about health and wellness options, circumstances not seen in previous generations (Beck, 1994; Lambley, 1995). It is

suggested that the post war baby boomer group of men and women do not wish to be observed to be aging. Furthermore, they know that changes in medical technology offers them the potential to remain active and to live longer than their parents (Beck, 1994; Townsend, 1993 & 1994; Rowe, 1994).

This combination of circumstances offers nurses and health professionals an opportunity to study and educate a unique group. Not only are middle aged men likely to be more interested in increasing their anatomical and physiological knowledge, but they are more likely to make an effort to improve their health status due to their developmental stage. As it is a normal developmental task of middle age to wish to improve circumstances for other generations, the potential exists for information to be spread within the individual's sphere of influence (Katchadourian, 1987; Lambley, 1995; Sheehy, 1981).

Current mortality and morbidity statistics provide evidence that men are dying in middle age of essentially socially constructed, preventable, lifestyle associated disease processes and behaviours, all of which correlate with stress. It appears that knowledge deficits may be contributing to these statistics, yet health educational topics of interest to men have not yet been formally identified. Consideration also needs to be given to strategies that will assist men to identify, access, and utilise health educational information that is already available within the community at large (Brand, 1993; Biddulph, 1994; Fletcher, 1995; Pinnock, O'Brien & Marshall, 1995; Ring 1995).

Significance of this study

Men's health has been identified to be an extremely complex issue (Allen & Whatley, 1986; De Hoff & Forrest, 1984; Fletcher, 1993; Forrester, 1986; Prenesti, 1995a, b). These authors have recognised the role that nurses play in the dissemination of men's health information and have identified the need for nurses to understand the impact of gender roles on health status and health care. In addition, it is considered necessary that health professionals understand the complex sociological, psychological, and political variables that influence men's ability to seek, obtain and maintain optimal health at different age differentials. Forrester (1986) recommended research that will delineate the impact of sex role stereotypes and associated behaviours, so that health care providers can dispel the myths which negatively influence men's lives and health status.

Convenors of men's support groups and nurse researchers have expressed concern that nurses and medical practitioners seem unaware of the difficulties that aging men experience when required to raise medical, sexual and emotional issues with strangers. Consequently, men have often waited for health practitioners to broach the subject of testicular examination, prostate disease, obesity or depression. In addition, practitioners may be unaware that men may wait months after the onset of symptoms before seeking treatment for a disease process (Biddulph, 1994a; Compass, 1995; Eggar, 1995; Forrester, 1986; Men's Health and Wellbeing Association of Western Australia, 1995a, b; Pinnock, O'Brien & Marshall, 1995; Webster, Patterson, Chin & Sharp, 1992).

The holistic health status and health educational needs of Australian men aged 40 to 60 years have not yet been identified. The researcher's interest in this topic

developed from an invitation to present a series of health and wellness lectures to a group of business men. These men confused fitness with health, knew little about the aging process and only considered illness within a physical frame of reference. In addition, health had not previously been considered to be multifaceted, or the responsibility of the individual. Instead there was an expectation that like machines, bodies could be fixed by the medical profession if and when problems arose.

Anecdotally these men were not aware of the symptoms of compounding stress and they did not associate prolonged stress or risk taking behaviour with illness causation. During question time, knowledge deficits in the areas of nutrition, anatomy, physiology and wellness concepts were identified. It was also found that the relationship between lifestyle and disease processes common in middle age was not generally understood.

The men indicated that it was difficult to find male orientated health educational information within the community. Most had read recently published newspaper articles that highlighted the poor status of men's health throughout Australia. It appeared however, that most of the men considered that illness and emotional illness in particular was more likely to affect older men. These circumstances have since been confirmed in South Australia (Bentley & Booth, 1995; O'Hehir, 1995a).

Stanton (1995) a nutritionist, agrees that men know little about their bodies and less about nutrition. It appears that school topics taught in the 1960s and 1970s have not adequately prepared men and women for dual career relationships or the stress associated with the rapidly changing technological world of the 1990s. This generation, raised with outsized expectations of a good life that can probably not now be achieved,

are compromising interpersonal relationships with their frustration (Hamilton, 1994; Linder-Peltz, 1993; Mackay, 1993; Rance, 1996).

A number of authors consider that lack of anger management, assertive communication, and conflict resolution skills compound the situation. With women no longer prepared to stay living in an emotionally or physically violent home environment, divorce is increasing in the third and fourth decade. Furthermore there is anecdotal evidence that men are not coping well with the stresses of living alone (Biddulph, 1994b; Gates & Hammond, 1994; Lambley, 1995; Mackay, 1993; O'Hehir, 1994b & 1996).

There is agreement that identification of topics of interest, and an understanding of how individuals perceive their own health and wellness status are pre-requisites to developing a wellness mindset and designing health educational materials or educational programs (Collins, 1991; Donovan & Ardell, 1991; Hamilton-Smith, 1994; Labonte, 1993). The future development of gender specific, holistic health educational information materials that promote health and wellness as the responsibility of the individual have the potential to reduce fatalities. The community will also benefit as costs associated with an aging population will be reduced (Barge, 1994; Chapman, 1994; Clarke, 1986; Lawson, 1991; Linder-Peltz, 1991; Palmer & Short, 1992).

The Purpose of the Study

This descriptive exploratory study seeks to identify the current wellness status level of health risk, and the holistic health educational needs of men aged 40 - 60 years (middle aged men as defined by Berger, 1994). Nursing interventions that have the

potential to both educate and empower these men to take responsibility for their own health and wellness status will be identified.

Research Questions

1. What is the current wellness status of a group of men aged 40 - 60 years?
2. What are the levels of health risk status for this group of men aged 40 - 60 years?
3. What topics for health education and personal growth are identified by the men in the study group?
4. What nursing interventions are necessary to improve the health educational status of men aged 40 - 60 years?

Chapter II

REVIEW OF LITERATURE

Statistics presented in the introductory chapter suggest that middle age is a particularly stressful life period for men. A comprehensive review of literature demonstrated that a number of authors consider that men's health research is in its infancy internationally. As well, there is a dearth of academic literature and scientific data that identifies men's emotional and physical responses to the aging process. Information relating to the mid-life experience can however be found within autobiographies, anecdotal accounts and generalised men's health manuals that have been published for the general public (Beck, 1994; Gates & Hammond, 1994; Lambley, 1995).

Berger (1994) suggests that these circumstances can be directly related to the traditional biomedical health model. With its primary focus being the recognition and then surgical or medical treatment of disease, research funding has been more readily available for acute, fashionable and profitable disease processes. This has meant that "in health care literature, young and middle age adults are neglected" (Stanhope & Lancaster, 1992, p. 532).

O'Hehir (1995) and Lowy and Gillman (1995) have recommended that health professionals need to be aware of the complexity of the developmental, emotional, social and physical issues that affect the health status of aging males, before health educational materials and support facilities for men can be developed. Men's health research currently reflects medical practitioner interest and drug company funding. These circumstances are also reflected in the limited range of men's health educational pamphlets that have been published (Pinnock, O'Brien & Marshall, 1995).

In Australia, men's health was not considered to be a topical issue until the 1990s. While community interest in general has increased due to three national men's health conferences held during 1994 and 1995, men's health is still not seen to be a political issue. The health care system is seen to be male dominated and it appears that there has been little interest in identifying, let alone recognising, the importance of men's health as a separate research issue. A lack of funding for men's health research as well as the absence of educational texts and a shortage of academic articles, has discouraged nurse researchers from investigating men's health issues. Information on pioneering research that has been undertaken is limited to excerpts of interim reports published in conference proceedings, newspapers, magazines and periodical articles. This format makes research assessment difficult and means that some information has to be sourced from popular literature (Fletcher, 1995a & 1995 b; Hall, 1995; Pincock, O'Brien, and Marshall, 1995).

This literature review will critique what research is available under the headings of the developmental perspective, the mid-life emotional crisis, and the Australian perspective. Based on previous data and current ongoing research, the identification of health topics of interest to men will be discussed.

The developmental perspective of middle age (also called mid-life)

Middle age and the associated emotional problems for men were rarely mentioned historically. Life was short, survival took priority, and until the 1960s gender roles in most cultures were clearly demarcated. The mid-life experience for men can however, be identified in literature as far back as the second century. Hindu Scriptures identified four distinct life periods in which former pleasures were out grown and replaced by

more appropriate life purposes as individuals aged. These were the (1) the student, (2) the parent, (3) the pilgrim (middle age) from the time of the birth of the first grandchild. Individuals reflected on their lives, their status, their health and sought new life meanings and goals. The final stage (4) was achieved when success and status was no longer important and the individual could live in peace with his inner self (Sheehy, 1976b; O'Connor, 1981 & 1993; Lambley, 1995).

Shakespeare (1660) observed and described the seven stages through which man progresses in his life time, identifying middle age as a period when man was respected for his life's work, wisdom and success. Each age is identifiable by role and tasks, as well as by changes in personality and health status.

All the world's a stage, and all the men and women merely players: they have their exits and their entrances; and on man in his time plays many parts, his act being seven ages. (1) At first the infant..(2) the whining schoolboy..(3) the lover..(4) then a soldier.. (5) And then the justice, in fair round belly with good capon lin'd, with eyes severe, and beard of formal cut, full of wise saws and modern instances, so he plays his part (6) The sixth age shifts into the lean and slippered pantaloone, with spectacles on nose and pouch on side, his youthful hose, well sav'd, a world too wide for his shrunk shank; and his big manly voice turning again toward childish treble, pipes and whistles in his sound. Last scene of all (7) that ends this strange eventful history is second childishness, and mere oblivion, sans teeth, sans eyes, sans taste, sans everything (William Shakespeare (1660) *As You Like It*, II.vii cited in Craig, 1993).

While life expectancy has increased from 45 to 75 years over the past three centuries, Shakespeare's observations are still considered to be relevant and identifiable today. Many middle aged men feel however, that they are no longer respected for their age and experience (Craig, 1993). Shakespeare's observations that life stages could be associated with age and task were verified by American developmental research undertaken by Erickson (1950) Levinson et al. (1978) and Levinson (1986).

Significant stages within the life cycle were seen as a series of stressful conflicts and crises or turning points. Each turning point required thoughtful consideration, adaptation to the changes occurring in the individual's environment, and the development of a new life direction. New personal identities were established and the experience of the process contributed to the development of the individual's personality and level of maturity.

Although exploring different aspects of the life experience, when considered in combination, Jacques (1965a), Jung (1971), Levinson et al. (1978) as well as Mass and Kuypers (1974) developed a strong case for the inevitability of personality change in middle age for both genders. In men this was characterised by the re-establishment of role identity, the mid-life review of every aspect of life, the mourning of perceived losses, most being associated with perceptions of masculinity, and then finally the establishment of an awareness of a more spiritual and peaceful side of the being. All of these components contributed to the individual's personal growth.

Jacques (1965a) found that the male menopausal grief process included long periods of denial of emotions as well as the mourning of perceived losses. Most of these losses were deemed to be illusionary perceptions of maleness and socially constructed. Social constructs of maleness are nonetheless real in their consequences and can impact on both mental and physical health as well as male health seeking behaviours (Buchbinder, 1994, 1995).

Jacques also assumed that the male mid-life grief process was associated with a testosterone level fluctuation (1965b). Thirty years later there is increasing evidence that testosterone replacement therapy, may reduce male mid-life psychological stress associated with concern about ageing and sexual performance. The long term physical

effects or benefits of testosterone replacement therapy have not yet however been demonstrated through scientific research (Brewer, 1995; Gates & Hammond, 1994; Lambley, 1995; Richardson, 1995).

Jung (1971), found that women often only paused to assess the situation before making adaptive changes in order to create a balance between personal contentment and worldly aspirations. In contrast, men often experienced a prolonged period of stress and confusion. This was not relieved until new life path goals and directions were set and established (Jung, 1971).

Tannebaum (1995) a psychiatrist, agrees that men and women problem solve and adapt to change differently. While the differences may have diminished as women have assumed the same career expectations as men, the male adaptive responses identified in the 1970's literature do however still persist. In addition men of all age groups are experiencing stress associated with constant change, and role confusion as well as the legacies of feminism, socialisation and enculturation (Buchbinder, 1995; Tannebaum, 1995).

Developmental research through the life span takes decades. Consequently little was known about developmental stages, behaviours and in particular the expectations associated with gender and middle age until the late 1970's and the 1980's (Berger, 1994). Levinson's (1986) quantitative study which included semi-structured interviews with forty American working men and their wives demonstrated that adults hoped that life would become less serious after the age of forty. Middle age also activated deep anxieties about a decline in health. This was associated with a fear of aging as well as a fear of dying. In general, middle age was perceived to be a vague interim life period and the experience was generally described in negative terms.

Levinson (1986) developed the life cycle concept. Four distinct developmental transition periods were identified which occurred between the ages of 40 and 60 years. Each period had experiences and defined life tasks. The decade birthday marker points often initiated a significant life review which was followed by a period of destabilisation and rebuilding before the next transition point. Levinson (1986) felt that each life period contributed to the adult maturation process. In the 20s and the 30s the focus was on selecting a mate, learning to live with a marriage partner, starting a family, rearing children and establishing a career. During middle age the focus was on consolidation of career prior to retirement.

Levinson (1986) found that men reviewed their health status at the commencement of their fourth and fifth decades and were more receptive to health information at this time. In addition, the men demonstrated a natural desire to share the benefits of life experience with members of other generations. The desire to assist children to become happy adults often resulted in involvement in community organisations. There was also a re-establishment of relationships with parents and grandparents. Long-standing conflicts were often resolved (Levinson, 1986).

Sheehy (1996) an American sociologist and developmentalist has undertaken quantitative studies over a period of twenty years to develop the concept of personality development through the life-span. The results of these major studies have been published in popular literature (Sheehy, 1976b, 1981, 1996). In addition, extracts have been reproduced in anecdotal form in a number of women's magazines and the Readers Digest thus making information on menopause, male mid-life crisis and mid-life marital relationship issues more accessible to the general public (Sheehy, 1974a, b; 1976a, b; 1992 and 1993). Sheehy's research has supported Levinson's studies. In

addition, comprehensive and detailed information about gender specific developmental emotional crises that occurred at approximately nine year intervals has been provided. Both the individual and family experience of menopause and the male mid-life emotional crisis have been documented in detail (Sheehy, 1976b, 1981, 1996).

Initially, Sheehy (1976b) developed a life history questionnaire designed to probe the self perceptions, values, goals, coping styles and experiences at each stage of the life of adults from 18 to 80 years. Over three years, sixty thousand questionnaires were completed in communities across all states of America. Information was also gathered from workshops and age group interviews. One hundred and fifteen middle class, middle aged couples were interviewed during this process (Sheehy, 1976).

To explore the concept of well-being, and to identify why some men struggled with middle age and experienced few problems, Sheehy (1981) wrote to five hundred people across America who were in close touch with their communities to identify one man from among his or her acquaintances who appeared to be a high satisfaction person and who was coping with life's predictable and unpredictable turns with some success. The nominated men, then completed a life history - quality of life - well-being questionnaire and participated in an unstructured taped interview with the researcher. Details regarding their perception of middle age, the way the transition period had progressed and the effects of the men's reflective life review on family members were obtained. Additional information on the mid-life crisis was also obtained from two thousand men and women who returned questionnaires that had been published in American magazines (Sheehy, 1981).

A picture of optimal well-being emerged. People with high well-being levels, felt that their life had meaning and direction. They had experienced one or more adult

life transitions and had handled the circumstances in a creative way, setting new directions for the future. They rarely felt cheated or disappointed in their life and had several long-term goals that were important to them. Happy individuals were pleased with their stage in personal development and felt supported and loved by their partners. Most had friends, were cheerful and were able to accept constructive criticism. Significantly they had no major fears (Sheehy, 1981).

At the opposite end of optimal well-being, Sheehy (1981) found that the lowest levels of life satisfaction scores for men occurred between the ages of fifty and fifty five years, regardless of occupation, social status, or income level. These scores were also found to be out of synchronization with the women in their lives during this period. Freud's observation that during middle age, in comparison to women, men were more stressed by, and less able to adapt to change in work and family structures was also confirmed. Furthermore, men did not establish peer support networks. These findings also confirmed the results of extensive longitudinal studies undertaken in California (Neugarten, 1968) and at Harvard University (Valliant, 1977).

Sheehy's (1981) unstructured taped interviews and discussions identified masculinity and mortality issues. If these were not addressed during the fourth and fifth decades they created prolonged periods of stress which telescoped into a major identity crisis at retirement. This situation was reflected in mortality statistics within three years of retirement. Stress associated with the father-son relationship was also identified. Men needed to attempt to remake contact with their fathers during middle age, specifically seeking words of love and also recognition of both success and material gain. If their efforts were not verbally acknowledged, the evidence of material possessions did not bring feelings of happiness. Their disappointment and depression

was often masked by denial and the outward appearance of happiness (Sheehy, 1981).

While some men simply reviewed their health and wellness status and made lifestyle changes, others spent years uncertain of the origin of their fears, feeling out of control and mulling over life experiences. Unable to accept responsibility for their feelings or hopes not realised, most of these men blamed their wives, children and employers for their pain and frustration. To maintain a sense of power and control, some men reverted to angry, severe, autocratic, dictatorial, domineering communication patterns with family members. Others openly sabotaged their wife's efforts at the same time as communicating their support for career progress or study activities. These behaviours frequently resulted in prolonged emotional and often physical abuse of spouses or children. Often one child was singled out as a scape goat, and the wife was expected to support the husband's views and expectations (Sheehy, 1973, 1974a, b; 1976a, b; 1981 & 1993).

Prevented by perceptions of masculinity and socialisation from seeking advice, as well as lacking the necessary communication skills, many men attempted to resolve their perceived grief by making dramatic changes which they then found that they had to justify. Specific behaviours aimed at recapturing lost youth that were found to be associated with the mid-life transition. These included wearing clothes from years gone by or purchasing clothes more suited to younger men. Some men purchased sports cars. Others went on drunken binges with friends not seen since teenage years. Some men tried one night stands which often led to full blown affairs. Others established new relationships, left home, changed employment and moved residence, often all at once. Most however eventually found that their base personal emotional issues had not been resolved and these needed to be addressed (Sheehy, 1981).

There was also evidence that mid-life stress was exacerbated by the complex interaction of biological changes which occurs as part of the normal aging process. These included changes in sleep patterns and the night sweats associated with fluctuating testosterone levels. Poor nutrition, obesity, the consumption of alcohol, smoking and inadequate rest often compounded the situation. The loss of sexual potency often first experienced at this time became "was fraught with secrecy, shame, and denial" (Sheehy, 1993, p. 47).

In her most recent study, Sheehy (1996) used a life history and quality of life questionnaire. She also re-interviewed a number of the respondents, from the previous studies. Data from the 1976 and 1981 studies were reanalysed using a new analytical process and computer software. Social statistics over a thirty year period were examined in detail and predictable behaviours relevant to life transition periods were associated with years of birth and childhood socialisation.

Sheehy's (1996) study was replicated in Great Britain. Behavioural responses to middle age were found to be similar in the American and British populations and they had not changed from the earlier studies. The old demarcations of adulthood commencing at 21 and ending at 65 were however found to be out of date. At this time, this is the only published study that has demonstrated that adulthood stages have shifted forward ten years (Sheehy, 1996).

This occurred as couples who married in their twenties, postponed having children until their thirties. There was some evidence of a second major adulthood transition period where the first adulthood experience was replicated due to remarriage and the birth of a second generation of children. Once the initial excitement associated with this restart waned, men were again found to be exhibiting the same feelings of

entrapment. This was often associated with forced early retirement creating economic stress at a time when young families needed to be educated. These circumstances confirm the need for premarital relationship counselling and training in communication techniques (Sheehy, 1996).

Sheehy has also demonstrated the need for health professionals to be more aware of the psychosocial ramifications of the male mid-life crisis as well as the association with impotence. Australian medical practitioners and specialists have reported in conference papers and articles that sexual difficulties during mid-life are not necessarily only related to changes in testosterone levels. Impotence has been found to be more common in men who are obese, have raised blood pressure, high cholesterol levels, family histories of heart disease, diabetes, smokers, consumers of alcohol and those who have a preoccupation with work and career success. While the incidence increases with age, impotence is experienced by men of all ages when under stress (Lowy, 1994; Lowy & Gillman, 1995; Richardson, 1995).

Psychologists writing in popular literature report that the experience of the mid-life crisis and impotence in combination, has been identified as the prime reason for the instigation of extra-marital affairs and divorce during middle age. These circumstances create stress for partners, family members and often other women who may become involved in relationships. While opinions vary on the rationale for affairs, they appear to be a significant part of the male mid-life rebellion against the aging process (Lambley, 1995; O'Connor, 1987; O'Connor, 1993).

Agreeing with this view, Gates and Hammond (1994) consider that clandestine relationships offer opportunities to test out the sexual apparatus. Furthermore, in the male mind, if the sexual apparatus has tested out better with another woman, irrational

behaviour can be rationalised and justified. Blame for a one night stand, or the affair, can then be apportioned to the wife's appearance, weight gain, loss of interest in sex or her menopausal state. Other writers have also identified this destructive process (Bergler, 1985; Campbell, 1987; Lambley, 1995; Solomon & Levy, 1982; Tamir, 1982).

One other quantitative American study on the mid-life transition period was identified. Farrell and Rosenberg (1981) confirmed the existence of the mid-life behavioural patterns identified by Sheehy. Significantly, the representative group of 300 middle aged American men who were interviewed identified different degrees of acceptance of personal responsibility for happiness. This may reflect the grieving process associated with the mid-life review. Although 12% of the men in the study indicated that their life was empty, meaningless and goaless, this group of men accepted responsibility for their situation and station in life. In contrast, 30% of the men interviewed denied responsibility for their unhappiness. These men blamed employers, parents, partners, children, marriage and community members of other ethnic groups or race for their personal pain and discomfort. Twenty six percent of the men denied that anything was wrong with their lives, yet these men had clinical evidence of depression. It was concluded that this group were unable to admit that they felt out of control due to the changes occurring in their lives. They also had difficulty coming to terms with their emotional status.

The happiest group of men (32%) within the total study group reported satisfaction with work, marriage, children and health. These men felt in control of their lives. They also acknowledged the support of family and friends as well as their ability

to cope due to both prior life experience and having knowledge of stress management techniques (Farrell & Rosenberg, 1981).

Farrell and Rosenberg's (1981) study demonstrated a relationship between the degree of mid-life stress, education and socio-economic status. The relatively affluent and well educated were more likely to have either a crisis, or to cope effectively. The less educated, and those with lower social economic status, more often internalized their anger, punishing themselves with self destructive behavior while blaming others for their predicament (Farrell & Rosenberg, 1981).

Apart from Sheehy's series of studies which span twenty years, the cited American developmental studies could be criticised as being old snap shots in time of men in a specific culture. Size and the selection of privileged populations could also be considered to be negative factors. All of the studies however, identify the significant grief and anger that the majority of men experience during the maturation process from young adulthood through middle age to mature adulthood. The studies are relevant today despite their age as they identify the concerns and behaviors of the parents of the current middle aged generation. In addition to providing insight into the developmental process, the impact of this process on interpersonal relationships within home and community is also identified.

The Australian perspective

After documenting the life experience of the Australian 'baby boomer generation' Townsend (1993) confirmed that Australian men living in the 1990s responded to middle age in the same way as their fathers did. In an attempt to fully understand what Australian men really think, feel and believe

Townsend (1994) interviewed 300 men of all age groups in both structured and unstructured individual and group interviews at a range of venues and locations in New South Wales. While the total number of middle aged participants was not identified, more than 50% of the men aged over 40 years admitted that they had experienced some form of mid-life emotional crisis (Townsend, 1994). In addition, Townsend confirmed Sheehy's (1976b; 1981) findings that men's restlessness during middle age commenced with discontent at work, consideration of career satisfaction, and a comparison of evidence of material gain with their father's achievements.

The failure of work to provide meaning for life led to doubts and insecurities. This process generally commenced during the early thirties. Frustration with work, career and then interpersonal relationships followed. The emptiness of material goals, a loss of confidence and direction, a sense of disillusionment, as well as a questioning of the whole purpose of life had distressed many of these men. Most men felt anger that life had failed to deliver (Townsend, 1994, p. 196).

Townsend found that men when in a group setting, regarded the idea of a mid-life crisis as a joke. They also thought that women were more likely to be depressed or emotional during middle age. Significantly, none of the men were aware that other men experienced similar feelings. Letters however, demonstrated that men who admitted the mid-life crisis experience, found it to be devastating and extremely painful (Townsend, 1994).

Most of the men reported being forced to reconsider the significance of work in their lives. They also had to review their perception of what it means to be a male in Australian society. Men who were jobless, unemployed or of retirement age mourned the loss of work, the status, and the functional direction that work provided on a daily

basis. These men also explained how interpersonal relationships had come under close scrutiny as part of their grief process (Townsend, 1994).

Like the Americans, most of the Australian men had initially changed or considered changing everything in their lives. Often this included employment, career direction and marital partners. Most had divorced, but only some had remarried. Reasons for not remarrying included financial difficulties, the legal system and disillusionment with relationships which required total commitment (Townsend, 1994).

Townsend noted that the men's education had not prepared them for long-term relationships. They had married, not understanding what relationships were all about. Over time many of the men interviewed admitted that they had felt trapped as well as being extremely discontented with the father role. The majority of the men felt unappreciated for their contributions to work and society by their wives, children or by their employers. The men also experienced conflict as they viewed parental roles, relationships, sex and love differently to women. Frustrations with societal restrictions, and the need to conform to societal expectations were also related to an innate desire to rebel. From their perspective, the future only offered more of the same restrictions for years to come. (Townsend, 1994). These revelations appear to support Sheehy's (1981) findings that men and women's happiness is often out of synchronisation during middle age.

The effects of constant change

Data has been collected across Australia from non directed group discussions and unstructured personal interviews. This process has enabled behaviours to be explained through the exploration of attitudes, values, motivations, fears, hopes and dreams. A review of sixty of these reports published in popular literature (Mackay, 1993) confirms

that Australians have experienced eighteen concentrated years of social, cultural, economic, political and technological change. Personal attitudes and values have changed. Middle aged and older men have experienced significant stress associated with role redefinition and financial stresses associated with the need to often support their children as well as parents. They also feel that their traditional status in the home and workplace has been eroded with the advent of the dual career couple (Mackay, 1993). This work supports Townsend's (1994) evidence of male grief and stress.

In an unpublished paper presented to students in Curtin University of Technology's Certificate Course in Men's Health in Perth, Tannebaum (1995) a psychiatrist, considered that the increase in psychosocial stress and the number of middle aged partners being referred with severe depression, demonstrates the legacies of the rise of feminism, socialisation within a patriarchal society which subscribes to the Protestant work ethic, and the constant need to cope with change created by the technological revolution. These circumstances lower self esteem, restrict communication and prolong the resolution of adaptive problems associated with changing family dynamics. Furthermore, the signs and symptoms of compounding stress, the grief process and depressive illness is not well understood by either gender (Tannebaum, 1995).

Men's perception of depression

Research undertaken by the Western Australian Association for Mental Health and the Perth Health Department Community Depression Project (1994) demonstrated that depressive illness in general was not understood by men or women. A qualitative and quantitative approach was used to explore and measure how the community perceived mild to moderate depression, how it should be managed and what were the

major outcomes. The qualitative phase involved a series of focus group discussions. The quantitative phase involved a random sample telephone survey of 251 respondents aged from 20 to 60 years in the Perth metropolitan area. Eighty seven (35%) of the respondents were men, but as the age groups were not identified by gender it is not known how many middle aged men participated in the study.

Responses indicated an underlying public perception that depression is associated with personal failure. Early indicators of depression such as increased stress or anxiety were also not recognised or acted upon in time for effective early intervention. Few study participants saw any clear link between depression and psychosocial factors such as a trauma or stressful life events and few mentioned the physical manifestations of depression or the possibility of suicidal ideation. The men did not associate insomnia, chronic fatigue, reduced concentration, back pain, impotence or digestive disorders with depression and only a few of the men considered that a depressed person may need to discuss their problems. In addition, the men, not the women who participated in the study thought that depression had little effect on personal appearance and general health.

The men were also unaware that depression affected relationships. The researchers found that only 43% of the respondents suggested that professional assistance should be sought during a depressive episode. These findings were consistent with previous Australian community studies cited by the researchers that demonstrated that the impact of depression on the individual and the community were underated (The Western Australian Association for Mental Health and the Health Department Community Depression Project, 1994).

When the American and Australian studies reviewed are considered in combination, the findings suggest that the mid-life crisis response has changed little over time. Furthermore, the associated behaviors appear to be both a reaction to prolonged stress as well as an adaptive response. Most men however, have not heard the term 'normality' associated with the experience of the mid-life transition developmental period. As information on the topic is not readily available in the community, men's reactions can be influenced by community attitudes (Tannebaum, 1995).

Buchbinder (1994,1995) a Curtin University academic and author of a text on masculinity issues, considered that men's perception that mental illness is effeminate or a weakness contributes to an inability to identify and accept stress, as well as a suppression of emotions and masking of feelings. In addition, social expectations, denial, loss of self esteem, fear and vulnerability affects men's ability to discuss emotional, age, gender and socialisation issues with peers, family or medical practitioners.

Father hunger

Psychologists, counsellors and men's group co-ordinators have reported that male socialisation has also profoundly affected relationships with previous generations. This has led to the identification that father hunger is the major, primary, emotional underlying issue for middle aged men. This issue, which is rarely raised or discussed by men with their closest friends, causes anger and grief. This grief has to be processed as part of the middle age maturation process and reassessment of identity (Biddulph, 1994; O' Hehir, 1995b).

To progress through middle age, men have a fundamental need to understand the father's life experience, his failures and his successes, to process any associated anger and grief, to be able to forgive him for

physical or emotional pain, and to find some way to respect him. This activity is fundamental to establishing perceptions of masculinity. This is best done with personal contact and conversation if he is alive or in the mind or on paper if he is dead (Biddulph, 1994, p.13).

Psychologists now recommend, that middle aged men should re-establish personal contact with parents, grandparents, relatives, siblings and children. The process of viewing these relatives as they are today as individuals with feelings, assists men to recognise that they were loved as children and that their parents did the best that they could for their children, with the knowledge and finances that they had available within the social restraints of the time. Childhood perceptions are often revised and personal behavior as a parent or within relationships reviewed (Biddulph, 1994b; O'Hehir, 1995b).

While no research on the topic was identified, reports in popular literature on American Father-Son workshops have demonstrated that the re-establishment of the father-son relationship has significant benefits to the community. After the grief and anger is released, these men may for the first time, be able to verbalise life disappointments, their love for each other, and no longer feel that they have to compete. The grief associated with the desire to hear parental praise, or to receive tangible evidence of their affection also dissipates (Allen & Kivel, 1995; Carlson, 1992; Kivel, 1992; Lee, 1991; Osherson, 1986, 1992; Pasick, 1992; Pitman 1993).

Pasick (1992) provides evidence that participation in men's support groups assists men to become aware of the effects of their fears on their behaviour and interpersonal relationships. The security of men's groups or gatherings also offers men the opportunity to reconsider and challenge the ten central mandates of manhood (Table 1) as well as to understand how the maintenance of these socialised beliefs and

assumptions can influence lives, damage personal happiness, and affect the welfare of their families.

Table 1

The ten central mandates of manhood

The ten mandates of manhood (Adapted from Pasick, 1992, p. 25)	
1	The need to maintain self reliance
2	The need to be competitive in all endeavors,
3	Intimacy being seen as weakening self reliance and control
4	The need to focus on power and success
5	Problem solving through physical action
6	Keeping score in relationship to others
7	The need to retain superiority over females
8	Men should be independent of women
9	Men should not be seen to be weak or acting in a feminine way
10	Men should be cautious about getting too close to significant people in their lives

Biddulph (1994), Farrell (1994) and Pasick (1992) agree that health professionals should be able to assist men to understand five major mid-life challenges (Table 2).

Table 2

The five major mid-life challenges for men

The five major mid-life challenges for men (Adapted from Biddulph, 1994)	
1	Learning to feel and to trust emotions
2	To rediscover their creative skills
3	To renegotiate and revitalise relationships with parents, partners and children
4	To re-evaluate perceptions of sexuality and masculinity
5	To redefine their personal place and relationship with the family of origin

Australian medical practitioners and psychologists agree that women, children and communities are suffering greatly because of a lack of knowledge about the symptoms associated with compounding stress, developmental crises and the male mid-life crisis in particular. Furthermore, if men and women do understand the significance, the stress may still be ignored due to the denial process. Teenagers are particularly affected as the timing often coincides with completion of their high school exams or starting university. While no definitive research was identified that could establish a causal relationship, several authors suggest that the high levels of stress associated with menopause, male mid-life crisis, stressed marital relationships in combination with sitting final school exams could create sufficient stress for a teenage child to consider committing suicide (Biddulph, 1994; Gates & Hammond, 1994; Lambley, 1995; Tannebaum, 1995).

Coordinators of the Men's Health and Well-being Association in Western Australia have found that middle age is a critical time for behaviors and attitudes to be developed that will have lasting effects on men's health status. Older men frequently act as mentors as they assist men to work through the stress of personal developmental issues. In turn these men benefit from being able to fulfill the middle age task of improving circumstances for future generations (Personal communication, W. Carter, November 3, 1996).

An unknown number of Perth general practitioners returned a written questionnaire to the Men's Health and Well-being Association. Psychosocial stress was identified as the major men's health issue. Concern was also expressed at men's apparent inability to take responsibility for their lifestyle and health status, and that many men had nutritional knowledge deficits. This needs to be confirmed with

quantitative and qualitative research (Personal communication, C. Scott, CHN, September, 10. 1994).

Nutritional knowledge and obesity

Radican (1995) a nurse and men's health educator considers that in addition to the physical issues, men need more information and understanding about the effects of their socialization, lifestyle and poor nutrition on their health. They will then be able to make informed choices. In excess of 49% of the Australian adult population is classified as overweight. This is a rise of 5% since the 1989 statistics which demonstrated that 50% of men aged 40 - 44 and 60% of men aged 45 - 69 were overweight (Adams, 1995; National Heart Foundation, 1989).

According to Stanton (1995), a nutritionist, men's poor nutritional knowledge is significantly affecting their health as it causes both malnutrition and obesity. The combination of stress, the ready availability of a range of take away foods, (many of which are high in fat content) and insufficient physical activity means that obesity is now considered to be a major Australian health problem. This means that men's obesity statistics have not improved despite health promotion programmes.

Stanton (1995) suggests that before the incidence of Australian male obesity can be reduced, the following male perceptions of maleness need to be recognised by health professionals. Men may not perceive that they are overweight, men may see dieting to be only associated with women, many men consider that it is manly to have a 'beer gut,' and in general men have little understanding of the association between over eating, stress and concealed personal emotional issues.

While an increasing number of men are taking an interest in cooking most 'men have a childlike attitude to food. This means that they take 'little responsibility for

what they eat' (Stanton, 1995, p.176). Furthermore, many dominant men compromise their family's nutritional status by expecting partners to prepare only foods desired by the male head of the household (Stanton, 1995).

Men's inappropriate dietary patterns are also associated with a lack of understanding of the interactions between food, nutrition, health and disease patterns. In addition, men have traditionally left food purchases and food preparation to the women in the household (Stanton, 1995). This view has been confirmed by a recent Australian market research summary which noted that 'although 85% of men claim to be aware of the "five food groups," real knowledge falls short of their perception. The lowest level of awareness occurred in the 46-60 year old age group.' (Australian Dairy Corporation, 1993, p. 6). This situation may reflect topics that were taught to men during their high school years (Gates and Hammond, 1994).

Middle aged men's tendency to store abdominal fat creates specific health problems. These include an increased risk of coronary artery disease due to a metabolic syndrome associated with intra abdominal visceral fat deposits. In addition, there is a predisposition to non-insulin dependent diabetes, sleep apnea, hypertension, cardiac arrhythmia, and sudden death. There is also a risk association between obesity in men and cancers of the esophagus, bowel, stomach, liver and prostate (Caterson 1995; Fitzpatrick, 1995; Lawson, 1995; McKimmie, 1995a).

Consideration of the physical and emotional issues affecting men at middle age suggests that changing nutritional habits could significantly reduce physical and emotional stress. In addition, there is the potential to reduce the risk of heart disease, diabetes, bowel cancer and prostate cancer. A number of masculine issues may however, need to be overcome. It is therefore necessary to consider the effects of

men's socialisation process when developing health educational programmes (Bucchorn, 1992). The Gutbuster weight loss programme is an example of a male health educational programme which considers masculinity issues.

The Gutbuster weight loss program was established after Egger (1992) reviewed international studies which related abdominal fat deposits to raised cholesterol levels. He then surveyed an unknown number of Newcastle men and found that they were embarrassed about their large bellies and wanted to loose weight. To change this situation, men had to make behavioral changes which challenged perceptions of what it means to be a male in Australia. Not only was it found that men needed to understand where fat was found in food, but they needed to understand the need for a restriction in food intake, an increase in exercise, and the necessity to reduce the consumption of alcohol.

This male specific weight loss education program has demonstrated that men loose weight more quickly when the focus is on change in girth measurement rather than weight loss. Furthermore, men cope well with the concept of taking additional exercise if they have eaten extra food, or drunk an alcoholic drink the night before (Cornelius, 1994; Egger, 1992, 1995; Egger & Stanton, 1992). In Australia, 17,000 men have now completed the six week program. Organizers are concerned, however, that there may be a gap of up to six months from the time men are referred to the program and the date when men actually attend the classes. The same situation applies if men are invited to undertake a follow up assessment and education programme. These circumstances suggest that research assessing male girth measurement and weight loss needs to be undertaken at six months, twelve months and two years after completing the education programme (Egger, 1995).

Australian men are becoming more aware of the need to question traditional male behaviours and customs. They are also considering their health needs and health status. According to Fletcher (1995a), men on average attend a general practitioner twice yearly. In comparison to women however, these visits do not translate into disease prevention activities. Furthermore, men's health and wellness levels have not been established by age group nor has research determined how men define good physical health (Fletcher, 1995b).

The identification of health educational topics of interest to men

Prior to the formation of the Men's Health and Well-being Association of Western Australia, an article was placed in a Perth newspaper entitled " Mere males - but why do they flirt with death ?" (MacLachy, 1993). Men were asked to phone and provide feedback. While the community nurse involved in this research could not release confidential details regarding the respondent population or the methodology, he indicated that the majority of the men were middle aged. The newspaper article reported that many of the men felt that they had failed as partners and parents. Divorced, single men, and solo fathers requested information about cooking skills, meal planning and nutrition as well as budgeting . The men also requested that peer support groups be developed that could reduce the pain of disintegrating family life (Personal communication, C. Scott, CHN; June, 2, 1994).

Men's groups with members who are in the majority middle aged, have become established in Western Australia to provide both support and education. Questionnaires completed at men's weekend workshops and seminars which cover a range of topics have identified a number of issues which men need to consider, as well

as skills which need to be taught. These include:- overcoming fears, conflict and anger management, straight talking and clear listening; understanding self concept and the significance of low self esteem; the benefits of evaluating childhood experiences and identifying those which still impact on lives and interpersonal relationships; the maintenance of mind, body and spirit, the benefits of addressing addictive behaviors and taking care of yourself. Organisers also consider that there is a need to consider obsessive sex, pornography, homophobia and father-son relationships. The most popular topics appear to be: healing men's hurts; developing father son relationships, holistic health, and improved interpersonal communications (Men's Health and Well-being Association. W.A. Inc., 1996).

While health education is successful in public health to change single health directed acts, changing complex social habits takes time (Green & Kreuter, 1991; Wass, 1994). Tickell (1992), a corporate health educator and medical practitioner considers that for men's health status to improve, stress associated with perceptions of maleness and the male lifestyle needs to be considered. For most men, this may require masculine beliefs to be challenged as well as anatomical knowledge deficits to be addressed. The effect of lifestyle and stress in combination, with its predisposition to impotence, diabetes, heart disease, and premature death also needs to be understood (Tickell, 1992, 1995).

The Tasmanian Community Men's Health Education model

Quality management research undertaken by Tasmanian social workers confirmed that men benefited from an increased understanding of the relationship between lifestyle and stress. Williams & Were (1993) developed and tested a low cost, community men's health educational program model. Once fifty men had completed a

needs assessment questionnaire and identified topics of interest, a course was prepared to suit the specific needs of the group. The program was then promoted in newspapers, on the radio and by health and welfare agencies.

Men of all age groups were found to be slow to respond to the advertising. In particular, middle aged and unemployed men were difficult to access. When potential course participants were interviewed, this reluctance to participate was found to be associated with a number of fears as well as a reluctance to talk about fears and feelings. These included fear of the unknown, concern that knowledge deficits would be exposed, and that there might be a need to discuss personal issues in the presence of other men (Williams & Were 1993).

Over a three year period, a total of 120 men attended the lecture series run on demand in three Tasmanian geographical areas. While men aged 18 - 68 years enrolled, the majority of the participants were aged between 30 - 45 years of age. Most lived alone, were unemployed, and all resided in low income areas. Post course assessments completed by referring agencies and group leaders, demonstrated that the men involved in this educational program made positive lifestyle changes and used the knowledge gained. Nutrition improved and the men exercised daily. The development of budgeting, anger, stress and time management as well as communication skills had improved self esteem. In addition, stress within personal relationships had reduced. Other benefits included a reduction in feelings of isolation as friendships developed. The men who participated expressed relief that they knew that other men had similar fears and concerns. There was also an increased awareness of community support agencies and the services that they offered (Williams & Were, 1993).

These findings were later supported by a small quantitative research project

(Were 1994). A pre and post test design was used to compare two unmatched groups. Eleven course participants and ten men recruited from the community completed Baker and Itagliata's (1982) Quality of Life assessment questionnaire. Those that completed the education program increased their quality of life scores. In comparison, the slight increase in score for the control group was not considered to be statistically significant (Were 1994).

Innisfail Hospital Community Men's Health Programme

Nurses at Innisfail Hospital in Queensland used William and Were's (1993) model to develop the 1994 Community Men's Health Program. The socio-economic mix of the Innisfail course participants differed from the Tasmanian groups. Most of the middle aged men who attended were employed, middle aged professionals who were members of Rotary, Lions and Apex men's service clubs (Personal communication, I. Cao, Innisfail Hospital, July 1, 1995). The results of the needs analysis demonstrated that the expectation by course organisers that health issues and questions regarding cause and treatment would dominate was not supported. Instead, stress was identified to be the major issue. This was demonstrated by stressful survival and relationship issues being listed ahead of physical topics (Donily, 1994).

The Tasmanian and Innisfail findings, while not representative of Australian men in general due to the small size of the research populations, are listed in Table 3, along with the ten men's health issues of concern identified in South Australia by O'Hehir (1994).

Table 3

Men's health issues and topics of interest

O'Hehir (1994) South Australia	Williams & Were (1993) Tasmania	Donily (1994) Queensland
Stress management	Opportunities to learn	Managing anger
Prostate Cancer	Coping with unemployment	Coping with grief
Exercise, nutrition and weight reduction	Using services that exist	Back care
Impotence and male sexuality	Improving fitness	Learning to relax
Testicular cancer	Standing up for your rights	Communicating better
Male Mid-life Crisis	Managing Money	Prostate and testicular cancer
Recovery from heart attack	Job applications Job interviews	Checking BP and Blood sugar
The male role in the family	Communicating better	Standing up for yourself and your rights
Suicide and violence	Enjoying life more	Enjoying life more
Men and disease	Becoming more confident	Managing money
	Developing friendships	Improving fitness
	Coping with sadness loss separation	Coping with unemployment
	Managing anger	Parenting - dad or step dad
	Learning to relax	Developing friendships
	Learning to cook	Retirement
	Check ups STDs Contraception	Check ups STDs and contraception
	Parenting- being a dad or step dad	Becoming more confident
	Smoking alcohol drug and gambling	Services available for men
	Learning to relax	Applications and job interviews
		Courses available
		Mid-life crisis
		Learning to cook
		Smoking alcohol drugs and gambling
		Impotence
		<u>Other topics suggested by the men:</u>
		Conflict Resolution
		Facing hopelessness
		Teenage male suicide.

The table as presented can be criticised. The topic lists and analytical methods used in these studies were different. In addition there were discrepancies in the size of the groups surveyed. The topics and their order of listing do however, give some direction to health professionals who are planning to develop men's health educational materials. Two trends are demonstrated. Stress and survival issues dominate over physical issues. In addition, the topics reflect the personal, relationship, socio-economic and employment concerns of the respondents within three different communities. Similar circumstances were identified in South Australia (O'Hehir, 1994).

The South Australian studies

Concerned at the high incidence in male suicide in rural areas as well as the lack of research and texts on men's health issues for health care workers, O'Hehir (1994) a psychologist, obtained funding to identify health issues of concern to men in South Australia and to develop an educational text for health professionals. Information on the detailed methodology of this research is not included in the conference papers or the men's health teaching text which was developed as a result of this research. The study which is collectively known as the Rural Health Support Education and Training Scheme research took more than two and a half years to complete (O'Hehir, 1994a, b, 1995a, b).

Initially as part of this quantitative research, a needs analysis questionnaire was completed by 149 men. Ten aspects of men's health which required addressing were identified (Figure 1). To obtain additional information, 300 men were invited to attend a series of informal unstructured workshop discussion groups held in ten south eastern South Australia rural cities and towns. The participants confirmed that men's health

needs had only been considered from the physical and medical perspective. In addition, health professionals had given little consideration to the stress that men experienced in association with work and family life as well as sexuality and masculinity issues.

Farmers who participated in interviews admitted stress associated with economic concerns. Droughts had reduced their income, children could not be sent to boarding school and banks were foreclosing when debts could not be paid. In some cases wives were having to work away from home to supplement the farm income. Within industry, many of the middle aged men reported high levels of stress associated with work. They were particularly concerned about the possibility of retrenchment. These fears were found to be related to socialisation as well as perceptions of maleness associated with the Protestant work ethic.

To obtain an industrial perspective, fifteen hundred questionnaires were distributed to male staff who worked in Kain and Shelton (a major transport company) and SEAS Sapfor (a timber milling company) with the assistance of Occupational Health and Safety Nurses. It is not known how many of these men returned their questionnaires. O'Hehir's report to the National Men's Health Conference in Tasmania in 1994 indicated that 59% of the participants were aged between 35 and 54 years. There was significant evidence of stress and unresolved anger which caused marital disharmony and domestic violence within the region (O'Hehir, 1995a, b).

In a sample of 290 men, 32% had uncontrollable loss of temper, 36% were aggressive toward family members, 69.5% sensed being out of control at work and 45% experienced difficulty expressing their emotional needs. Eighty six percent felt unable to keep up with technological changes, 45% feared permanent injury at work and 25% were unaware of reasons for breakdown in their relationships. Twenty seven per cent admitted that they had contemplated suicide (O'Hehir, 1994a, p. 65).

Physical issues and knowledge deficits were also identified from the data collected. Despite having had their blood pressure checked within the previous six months, 67.5% of the group did not know what the reading was. Eighty one per cent of the men did not know what their cholesterol levels were, and 46.3% of the respondents who indicated that they knew their weight, were found to weigh more than 10% higher than the levels that they had indicated. The researcher concluded that general practitioners were not making men aware of the significance of this information (O'Hehir, 1995a). The close relationship between perceptions of masculinity, work cultures and male lifestyle behaviors can be identified from the data collected. In the group of 290 men aged between 35 and 54 years, 22% of the men admitted that they were addicted to work. Alcohol was consumed by 50 % of the men on a daily basis, at a rate of 3-6 drinks per day. Almost 20% of the men smoked between 10 - 20 cigarettes per day. Only 40.5% of this group exercised a minimum of three times per week and 25% indicated that they did not exercise at all. Sixty six percent of the workers had back injuries. Seventy two percent were found to have never had checks for cancer of any type and 34% had problems with impotence. Furthermore, 73% of these men had not had any medical check for bowel or prostate cancer (O'Hehir, 1994a, b, 1995a).

It was generally concluded that many of the men studied were physically and emotionally stressed. They were not coping with their families, their sexuality or rapid social change. A stress-disease relationship within the region was demonstrated when standardised morbidity and mortality statistics were considered. Male deaths from myocardial infarction, pneumonia, chronic bronchitis, emphysema, and lung cancer,

injuries, poisonings, motor vehicle accidents and suicide were over represented in South Australian rural areas (O'Hehir, 1994a, 1995).

O'Hehir's study clarified a number of men's health issues that had been perceived to exist by health professionals. The hidden emotional component of Australian men's health was confirmed. In addition, ten crucial elements which needed to be addressed in men's health policy and education were identified. Table 4 lists these elements in order of concern.

Table 4

Ten crucial elements of men's health policy and education

Elements of men's health policy and education that need to be addressed (Adapted from O'Hehir, 1994b)	
1	Stress management,
2	Prostate cancer,
3	Weight reduction: nutrition and exercise
4	Impotence and male sexuality issues
5	Testicular cancer
6	Male mid-life crisis
7	Recovery from heart attack
8	The male role in the family
9	Suicide and violence
10	Men and disease

The Tasmanian, Queensland and South Australian experiences have provided direction for the development of educational programs for men as well as the development of community health educational materials. While the populations are too small to be considered to be representative of Australian men in general, all of the studies have verified the value of a needs assessment. The identification of issues of concern and topics of interest is an essential precursor to the establishment of a community health education program (Collins, 1991).

The studies have also identified the difficulties that health professionals can experience when undertaking community research in the area of men's health. Men, while interested in health, are reluctant to participate in research and are even more reluctant to return questionnaires. This can mean that research can take longer than anticipated. Furthermore, once educational programs have been organised, men may be reluctant to attend. Alternatively they may attend initially and then drop out over a course of lectures.

The development of health educational materials for men

Lowy and Gillman (1994) medical practitioners who established the Sydney Men's Health clinics reported in a conference paper that aging men are most concerned about circumstances and physical issues which they perceive are related to a diminished status of masculinity. This means that impotence, and prostate disease are top of the list. Many men however have quite limited knowledge of their anatomy, and information must be available in a form that can be understood by men (Lowy and Gillman, 1994).

A South Australian research project examined men's perceived issues associated with pre and post prostate surgery so that educational materials for men in the community could be developed. The research was undertaken in two stages to identify the physical issues that concern older men in the areas of urological health. Initially eight focus groups comprising on average six men, participated in two hour, taped, semi-structured group discussions. Facilitators found the initial hour to be difficult. Personal experiences were not shared or health topics discussed freely until the second hour. To broaden the participant base, ten additional focus groups were recruited. Thirty one people participated in one session conducted by a general practitioner. Two of the focus groups comprised wives and partners. One of these was facilitated by a female and one by a male. All sessions were recorded (Pinnock, O'Brien & Marshall, 1996).

In phase two of the study, seventeen interviews were conducted, eight with men known to have benign prostate disease and nine with men diagnosed with prostate cancer. The men were asked to describe their experience from their first awareness of symptoms, to seeking medical assistance, becoming aware of the diagnosis and treatment choices up to and including treatment for the identified condition. Details were obtained regarding the origin of information that the men had found to be of assistance. The data collected suggests that older men obtain information from a range of sources. These include books, journals, pamphlets, magazines, newspapers, television, radio, friends, partners and then their medical practitioner, in that order. The men were also found to be interested in information on sexuality, voiding, the prostate and conditions which affected the bowel (Pinnock, O'Brien and Marshall, 1996).

While the final report has not yet been released, to date this study has produced a developing jigsaw of factors which affect men's ability to identify health problems, to seek assistance or to visit doctors prophylactically. Attitudes to aging, confusion, knowledge deficits and a culture of silence are all components. These factors all require consideration when health educational programs and policy strategies are being developed for men (Nursing Review, April 1996a; Personal communication, B. O'Brien, PHD Nurse Researcher and Continence Advisor, July 18, 1996).

Yung (1993) in an unpublished Master's thesis, identified similar patient attitudes and beliefs when he interviewed eight older West Australian men to identify the lived experience of being incontinent. The men in this study also found it difficult to seek advice. There was also evidence that few nurses or medical practitioners were able to provide helpful information that assisted these men to live with their condition. Furthermore the men indicated, that when seeking information on voiding and sexuality problems, medical practitioners often inappropriately referred them on to surgeons (Yung, 1993).

Brewer (1995), a general practitioner and author of a men's health manual, reports that British researchers have demonstrated that between 10 and 30% of British men are affected by impotence on a regular basis and a physical cause can be identified in 40% of cases where men seek medical assistance. Medications, including beta blocking drugs used in the treatment of hypertension, thiazide diuretics and anti depressants are commonly prescribed to middle aged men. Few medical practitioners however, warn their clients that impotence is a side effect of these drugs. Due to the mistaken belief that nothing can be done, most men suffer in silence and despair, often believing that the cause of their impotence must be psychological (Brewer, 1995).

Many Australian general practitioners also continue to perpetuate this belief (Cortenbach, 1994a & 1994b). Correct diagnosis of impotence is essential. The experience of being unable to sustain an erection or to ejaculate can cause some men to experience feelings of guilt and stress. Men are also advised to confide in their partners and to seek counselling if there are relationship or sexual difficulties. Lambley (1995) and Brewer (1995) suggest that both genders require more information about impotence, menopause and the mid-life crisis. Emphasis needs to be placed on the normality of the situation as well as on the benefits of seeking advice and treatment.

It is considered by a number of authors that extramarital affairs, marital stress and divorce levels are unlikely to lower until both genders understand the degree of stress and personal grief that is associated with changing hormone levels, impotence, menopause and the male mid-life emotional crisis that is associated with the mid-life developmental review (Brewer, 1995; Gates & Hammond, 1994; Hall, 1995; O'Hehir, 1995a, Rowe, 1993).

Addressing men's knowledge deficits

This review has demonstrated that health educational topics of interest can be identified from within community health needs analysis research. American Health and Wellness Nurse Practitioners and Community Nurses report that lifestyle assessment and health risk status questionnaires that can generate individual or group reports are useful for identifying the health educational needs of individuals and groups. The information obtained can be used to identify knowledge deficits and topics of interest. In addition, health care management plans can be developed for individuals and or their

families. Middle aged men have been found to respond favourably to health management planning. (Goeppinger & Labuhn, 1992).

Tickell (1992) a medical practitioner and corporate speaker, has found that in order to address men's anatomical knowledge deficits, analogies and humour is necessary. Men readily relate bodily function to machinery. A picture of a pressure cooker for example assists men to recognise that stress is a self generated response to external stressors. Unless the pressure valve is released at intervals, stress can become internalised as anger predisposing men to heart attacks, and men and disease. Men also relate the need for a regular medical examination from the age of thirty, to the way motor vehicles should receive routine mechanical examinations at ten thousand kilometre intervals (Tickell, 1992, 1995).

In his health educational seminars, Tickell includes stress management guidelines so men can identify what can and cannot be controlled. Men are advised to check that they have a balance between time that is focused on work and family commitments. In addition, information about ceasing smoking, balanced nutrition, relaxation skills, meditation, creative visualisation and time management is provided (Tickell, 1992 & 1995).

Summary

This literature review has demonstrated that men's physical health status during middle age is closely linked to knowledge deficits as well as socialised masculine myths and beliefs, behaviour, and lifestyle. The psychosocial stress which occurs during the mid-life transition period, in combination with changing hormone levels, impotence, and poor nutrition, contributes to the chronic fatigue that many middle aged

men describe. This situation occurs at a time when the body's immune system, may already be compromised by the onset of chronic disease processes which often present during middle age.

Australian nursing research in the field of men's health is extremely limited.

Nurses have a major challenge to undertake research that will draw men's attention to lifestyle changes which could reduce the incidence of death and disease during middle age. Fletcher (1995a) considers that nurses have a major role to play in providing support to middle aged men, exposing men's health issues, as well as in the development of appropriate health educational programmes. It is recommended that strategies be developed that will not only educate, but also empower men to take personal responsibility for their health status.

Agreeing with this view, O' Hehir, (1995a) considers that men need information which will assist them to challenge male beliefs and attitudes that currently affect their health status. This may best be achieved by any process that assists men to see health as being multidimensional. In this way the focus can be moved from disease processes to the health wellness continuum, with individual responsibility being taken for health status.

Chapter III

THEORETICAL FRAMEWORK

General Systems Theory was originally developed to define living systems and the interaction of the related parts with other systems within the environment. General Systems theory can be used in nursing to explain how individuals continually interact within families, organisations and communities (Putt, 1978), as well as to plan and re-evaluate standards of care for individuals or populations (Palmer, 1978). Nursing models based on General Systems Theory can also be used to develop an understanding of the body systems, as well as the way that the body continually adapts to external and internal stimuli in order to maintain a state of health and wellness. A General Systems perspective assists nurses to recognise change, growth, and learning because of the interaction and interrelatedness of all living systems (Hall and Weaver, 1985). Individuals constantly interact with and are influenced by other individuals or groups within a hierarchy of systems. Each of these systems strive to attain the goals of survival, growth, self mastery and wellness (Andrews & Roy, 1984; Roy, 1984).

General Systems Theory is recognised and used by allied health professionals. According to Pasick (1992) individuals undergoing family therapy are able to understand belief development and the connections among the various social systems that influence a person's life and lifestyle in the past, present and future. The interacting family systems are used to explain how socialisation affects beliefs and actions. In this way traditions, as well as functional and dysfunctional behaviour patterns repeated within generations can be identified. In addition, the way that the nuclear family and the family of origin define how both genders are supposed to conduct themselves can be demonstrated.

Each individual has a wide range of interactive systems which are part of the individual's socio-cultural environment. These include neighbours, schools, church, work systems, city, state and national political systems, religion and economics. Middle aged men interact with nurses as family members, in the community, or in hospitals. This interaction provides an opportunity for nurses to draw men's attention to their developmental status, attitudes, behaviours, beliefs and knowledge deficits which may be affecting their level of wellness, as well as their ability to cope with the mid-life developmental process and stress associated with the need to adapt to constant change.

General Systems Theory is used in primary health care to identify, explain and change factors which have the potential to influence the health of the individual (Fletcher, 1993a; Hall and Weaver, 1985). Figure 1 simplistically identifies this process. The client as an individual system continually interacts and receives input from his environment and other individuals. A nurse in conjunction with the client identifies and assesses lifestyle, health risk and wellness status. Action plans and interventions are then planned to resolve the defined issues. Specific health educational information is provided according to identified need. Feedback from the client at a later date allows the interventions to be assessed. The cycle may then be repeated (Boyd, 1985; Goeppinger & Labuhn, 1992).

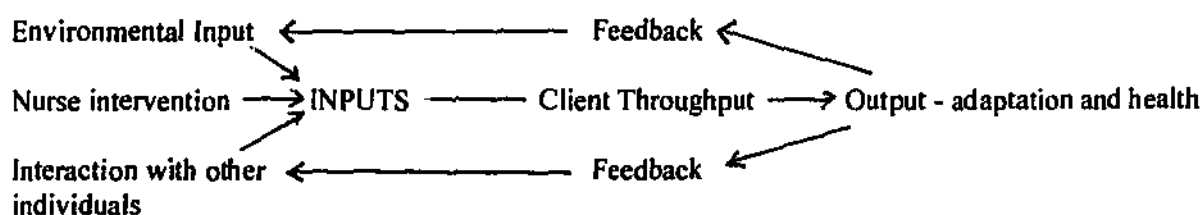


Figure 1

Classic system elements within General Systems Theory related to nursing intervention

General systems theory forms the basis of the nursing process which has been further developed by Clarke (1986) as the Intersystems Wellness Nursing Model. This model explains in detail how nurses can assist clients to identify, and to adapt to, the changes and challenges which occur in their lives at any given time. During this process, individuals are encouraged to take responsibility for their state of wellness (Clarke, 1986).

Wellness is a state of being which requires the active involvement of the individual. Through the use of lifestyle assessment questionnaires and health risk appraisals, a nurse can assist men to understand that health is multifaceted, incorporating physical, social, emotional, intellectual, occupational and spiritual dimensions. In addition, clients as individuals or within groups can be assisted to identify how choices made on a daily basis can affect health outcomes. This process can be used to empower individual middle aged men to define, plan and implement the changes in their lifestyle and within their environment that are necessary to improve their level of wellness (Goeppinger & Labuhn, 1992; National Wellness Institute Inc., 1992).

As an individual system, middle aged men continually interact with family, groups, organisations, and society. Behavioural change and improvements in health status can be seen by other individuals within their sphere of influence. During middle age, men assess every aspect of their lives including their health and usually wish to improve their health status and lifestyle. They also wish to improve the life circumstances for younger generations. This intergenerational and community organisational interaction includes the dissemination of health information. This process has the potential to reduce the incidence of early male death due to lifestyle associated disease processes, chronic stress or by self inflicted injury (Katchadourian, 1987; O'Hehir, 1995; Pasick, 1992).

Chapter IV

RESEARCH DESIGN AND METHODOLOGY

Design

The research took the form of a quantitative exploratory survey. It used a descriptive cross-sectional design.

Sample

Using Berger's (1994) developmental definition of middle age as being from "forty to sixty years" (p.559), the convenience sample inclusion criteria was established as: men aged 40 - 60 years inclusive, who responded to an invitation and consented to participate in the study. The researcher met with the Human Resource Managers of a Perth suburban shire office and a Perth University to discuss the objectives of the study. It was anticipated that a convenience sample of seventy males aged 40 - 60 years inclusive, would be available within these organisations. If necessary, additional respondents could be obtained from the Men's Health and Wellbeing Association Inc., Western Australia.(See table 5, p. 60).

Instrument

The National Wellness Institute, Inc., (1988) Lifestyle Assessment Questionnaire (LAQ) (Appendix A), was recommended by (Goeppinger & Labuhn, 1992) as providing a quantitative research approach, that health professionals could use to assist individuals and groups to reduce their health risk status and to maximise their self-care activities. American Health and Wellness Nurse Practitioners currently use this instrument to identify lifestyle and behaviours that contribute to the health risk status of individuals or groups as well as to identify health educational topics of interest. Education programmes are then

developed from the individual and group reports and where necessary individuals are counselled regarding their health risk behaviours. This practice is supported by the United States Government and the private insurance industry as a means of reducing mortality rates as well as health care costs to the community (Goeppinger & Labuhn, 1992; National Wellness Institute Inc., 1992).

The LAQ consists of three parts, a lifestyle/wellness inventory, a health-risk appraisal, and a topics for personal growth section. It was considered that this combination would be adequate to provide the data necessary to answer the research questions. Furthermore, the data could be computer processed by the researcher in Australia using LAQ software, thus maintaining data confidentiality. Permission for its use was obtained (Appendix B) and a license issued (Appendix C).

While the LAQ is of American origin, only data from the health risk appraisal section is compared with American mortality data. Health behaviours that have clearly documented relationships with disease processes are assessed e.g. smoking, alcohol consumption, and poor nutrition. There is the additional advantage that each respondent is compared with the current research group, as well as a reference group. Currently this reference group is drawn from American populations living in the United States of America and northern Europe. This instrument has not previously been used in Australasia (Personal communication L. Chapin, August 4, 1995). The reference group however consists of 47,000 people who are predominantly Caucasian, from a wide variety of occupations, socio-economic characteristics, and geographical locations within North America and Europe. Of the 26,126 males in the reference group, 5339 are aged between 36-60 (National Wellness Institute Inc., 1992).

The LAQ was developed in 1976 when the wellness movement was in its infancy, by the original directors of the National Wellness Institute, Inc., Stevens Point, Wisconsin, U. S. A. A panel of health and wellness professionals which included nurses, initially verified the validity of the instrument in educating and assessing respondent levels of wellness. The instrument scales and subclass have been validated in nursing and health promotional research projects (Anderson, 1988; Elsenrath and Fandre, 1988; Freeman and Ginter, 1986; Stefano and Richardson, 1987). The instrument has undergone continuous evaluation, assessment and improvement during the past twenty years. Computer software has been developed which enables individual and group reports to be generated either in part or in full (National Wellness Institute Inc., 1992).

The Lifestyle Assessment Questionnaire (National Wellness Institute, Inc., 1988 version) consists of four sections. These include demographic data, a lifestyle inventory, a health risk appraisal and the identification of topics of interest for personal growth. The questionnaire is not considered to be a substitute for a physical examination. In addition it has not been designed for individuals who already have heart disease, cancer, kidney disease, or other serious conditions.

Section one gathers demographic data: gender, race, age, height, weight, body frame size, marital status, income, level of education, and the number of hours spent watching television on a daily basis. The respondent's residential area is identified by size of population and as a suburb, city or country town. In the revised demographic section used in this study, the researcher changed the American educational terminology wording to reflect Australian terminology. In addition, the LAQ question 'where do you live' was

omitted as the researcher was able to accurately identify if the respondent lived in the country, a city, suburb or small town from the post code.

Five additional questions were included. Question 11 identified employment status as being unemployed, casual, part time or full time and Question 12 asked the respondents to identify their occupation. This information was included as due to the economic climate, middle aged men may not be employed full time. Information regarding occupation was requested so that blue and white collar workers could be identified and classified according to Market Research Categories (Appendix J). It was considered by the researcher that it might be possible to compare the health risk status of blue and white collar workers.

The National Wellness Institute Inc. requires that nurses follow specific protocols when returning questionnaires to clients who are known to be unwell. Medical advice may need to be sought if it is known that the client is suffering from heart disease, cancer, kidney disease or any other serious condition. For these reasons, questions 13 and 14 were included to enable the researcher to tag returns from respondents who perceived themselves to be unwell or who had any serious medical condition. Finally question 15 was included to identify if the men perceived that it was difficult to obtain information about men's health issues.

Section two, the Lifestyle Inventory, contains 185 questions. These are answered using a Likert Scale. Lifestyle and wellness status is explored and scored under eleven sub heading within six dimensions of wellness: physical, social, emotional, intellectual, occupational and spiritual.

Section three is a health risk appraisal which contains 42 questions. Inherited risk of heart disease and diabetes are identified. Essential information for the processing of health risk status includes diastolic and systolic blood pressure, cholesterol levels, and data which assesses smoking. Alcohol consumption, mode of travel, seat belt usage and driving behaviours are assessed. Perception of personal health status, satisfaction with life and circumstances which may predispose to lifestyle related disease processes are assessed. Frequency of exercise and physical activity is determined within a weekly time frame. Dietary questions identify if fibre, fruit and low cholesterol foods are included in the daily diet. The frequency of personal loss and misfortune within the previous twelve month period is identified. Four "men only" questions relate to the frequency and recency of prostate and testicular examination. Knowledge of the testicular self examination procedure is also determined.

Section four identifies topics for personal growth. The respondent is able to identify subjects of interest from a list of 43 topics. The software permits resources or services to be identified for four of the chosen topics. This information is included in the individual's personalised report (Appendix D).

Pilot study

A pilot study was undertaken with 15 male volunteers from a Perth Rotary Club to enable the LAQ process to be tested. This small group of men were comparable by age to the proposed study sample and they all lived in the Perth metropolitan area. None of these respondents indicated that they had experienced any problems answering the questionnaire. They did indicate however, that they would have preferred to circle the

answers on the questionnaire, rather than to use the scanner response sheets which were unfamiliar to them.

It was not possible to pay the additional US \$1000 required for a license to copy the questionnaires therefore the scanner response sheets had to be used. This also meant that in the main study, the data collection period was prolonged as the LAQ questionnaires had to be recycled. The data from the 248 questions in the pilot study could not be computer scanned. Although a scanner compatible to the software was available in Perth, the cost was prohibitive for this study. In addition, it was found necessary to check that all data was present so that an accurate health risk status report could be generated. The data was therefore entered manually by the researcher. The pilot study data was not included in the main study.

Procedure

The Human Resource Managers of the organisations that participated in the research indicated, that due to the recently introduced privacy laws, staff names, age and addresses could not be made directly available to the researcher. It was therefore mutually agreed that men who fitted the research criteria would be identified from the staff data base by birth date. Invitations to participate in the study would then be forwarded to these men via the organisational internal mailing system. The completed questionnaires would be returned in sealed envelopes via the same system. They would be stored in a locked filing cabinet until collected by the researcher.

A covering letter from the Human Resources Manager (Appendix E) was attached to the envelope which contained the researcher's letter of invitation to participate in the study (Appendix F), the consent form (Appendix G) and the questionnaire (Appendix A).

Written confirmation that the project had been approved by Faculty Higher Degrees Committee and the Ethics Committee of the Edith Cowan University was also included (Appendix H), as well as the LAQ computer scannable answer sheet with a lead pencil.

Thirty six sealed packages were returned to the Human Resource Manager's office either completed or not attempted within twenty eight days. Three men from the Shire Office phoned the researcher to ask how confidential information such as their date of birth, had been obtained. These men returned their completed questionnaires directly to the researcher by post.

A follow up letter (Appendix I) was forwarded to men identified by the Human Resource Managers who had not returned the questionnaires within fourteen days. This letter increased the return response by two. The use of the internal mailing system for distribution and collection was not ideal. Ten envelopes were lost in transit to the departments. The Human Resource Managers also discovered that twenty of the potential participants did not receive the questionnaire. Their secretaries chose not to pass them on and simply returned them to the Human Resources Department collection point.

Forty two men from these organisations completed the questionnaires. The researcher then contacted the Men's Health and Wellbeing Association co-ordinator who provided a list of members thought to fit the research criteria. Following telephone contact fourteen men volunteered to participate.

This direct method of contact with potential respondents had advantages. The researcher was able to check that the men fitted the research criteria. In addition, it was possible to request that the questionnaires be returned promptly. Without exception, all completed questionnaires were returned to the researcher within seven days in the supplied

stamped addressed envelope. A further fourteen respondents were recruited by the researcher through contact with managers of Perth small businesses.

Data Analysis

The data for each respondent was checked prior to manual entry into the computer. The National Health and Wellness Institute Inc. software Version 5.5 was used to generate individual and group summaries. The data was also entered for SPSS analysis so that frequency distribution, measures of central tendency and variance could be determined.

The ethical implications

This study conformed to Edith Cowan University's moral, legal, and ethical standards of scientific enquiry (Appendix H). The letter of invitation to participate and explanation of why the study was being undertaken was seen as an aid to securing informed consent from the participant. Participation was voluntary, and respondents had the right to withdraw from the study, or to decline from answering specific questions without any penalty. Procedural guidelines were offered to ensure that anonymity could be maintained. Signed consent permitted the researcher to obtain any necessary information from the respondent. The LAQ questionnaire also contained a segment explaining confidentiality. This stated that only the participant and health professionals authorised by the respondent would receive copies of the individualised report. It was also indicated that the study report would only relate to group data. Each set of data entered in to the computer was identifiable by a code number known only to the researcher. Respondent information on paper or computer disk was kept in a locked filing cabinet.

Limitations of the study

The results of this study cannot be interpreted to be representative of middle aged Western Australian men, or Australian men in general. Australia is a diverse ethnic population and there are many ethnic groups among Caucasians. This study considered only Caucasian men. In addition, the data was collected from a small sample of convenience. The respondents were privileged, in comparison to many men in their age group, in Australia today. In the majority they were well educated, financially secure, and either in stable employment or self employed. The results also suggest that these men were, in general, satisfied with their lives. The health appraisal section of the study is dependent on the accuracy of the information provided by the respondents otherwise default values are used.

Chapter V

RESULTS

The data collected in this study will be identified in four sections. The headings are the same as those used to identify the divisions of the research instrument. They are personal data and demographics, lifestyle assessment, health risk appraisal, and topics of interest. This information will be used to determine the current wellness and health risk status of this group and to identify topics of interest.

Section 1: Personal data and demographics

Source of sample population and response rates

Data was collected from men working in a shire office, a university, members of a men's group and small business staff. Response rates were lower in the large organisational settings. The higher return rate response could have been influenced by direct contact with the researcher (Table 5).

Table 5

Source of respondents

Data Source	Invitations issued	Questionnaires returned.	Return Percentage	Researcher influence	% of sample
Shire Office	100	27	27.00	No	38.57
University	50	15	30.00	No	21.42
Men's group	18	14	77.77	Yes	20.00
Businesses	18	14	77.77	Yes	20.00
Total	186	70	37.63		100.00

The sample population

The convenience sample consisted of 70 Caucasian males aged between 40 - 60 years inclusive, who resided and were employed in the suburbs of the city of Perth, Western Australia. The age frequency distribution (Table 6) demonstrated that 64% of the men were aged between 45 - 55 years. The largest sub group of 27 was aged 46 - 50 years, and the ages most represented were 48 years (7) and 49 years (9) respectively. The mean was 49.87 years, the median 48 years and the standard deviation 6.05.

Table 6

Sample distribution by age group

Age Group (Inclusive)	N = 70	% of sample
40 - 45 years	16	22.86
46 - 50 years	27	38.57
51 - 55 years	14	20.00
56 - 60 years	13	18.57
Total	70	100.00

Employment, occupation, education, and income status

All of the respondents were either employed or self employed. Ninety percent of the men's occupations were classified as white collar workers (Table 7) according to market research guidelines (Appendix J). This situation was reflected in the level of education (Table 8), and income statistics (Table 9)

Table 7

Occupation

Occupation	White Collar = W Blue Collar = B	N=70	% of sample
Academic/Lecturer	W	15	21.42
Accountant	W	3	4.28
Architect	W	3	4.28
Clerical worker/public servant	W	10	14.29
Commercial Artist	W	1	1.42
Counsellor	W	1	1.42
Engineer	W	6	8.58
Financial Planner	W	2	2.85
Journalist	W	1	1.42
Lawyer	W	1	1.42
Manager or supervisor	W	15	21.42
Salesman - cars	W	3	4.28
Sales consultant	W	2	2.85
Teacher	W	1	1.42
Busdriver	B	1	1.42
Labourer	B	3	4.28
Serviceman	B	2	2.85
Total	67 (W) 3 (B)	70	100.00

Table 8

Level of education

Education	N = 70	% of sample
High school	21	30.00
Technical	13	18.57
University	12	17.14
Postgraduate	24	34.28
Total	70	100.00

Table 9

Income

Income	Number	% of sample
< \$12,000	4	5.71
\$20-40,000	18	25.71
\$40-60,000	26	37.14
> \$60,000	22	31.42
Total	70	100.00

Time spent watching television

Thirteen (18.6%) of the men did not watch television on an average day. Fifty two (74.3%) of the men watched television for between one and three hours. Four men (5.7%) watched for between four and seven hours. One man watched television for more than eight hours (Table 10).

Table 10

Hours spent watching television on an average day

Hours spent watching television	N=70	% of sample
0 hours	13	18.6
1 - 3 hours	52	74.3
4 - 7 hours	4	5.7
More than 8 hours	1	1.4
Total	70	100

Marital status

Seventy seven percent of the men were married. Of the remaining 23%, five were widowers, six were separated and six were divorced (Table 11).

Table 11

Marital status

Marital status	N=70	% of sample
Married	54	77.1
Widowed	5	7.1
Separated	6	8.7
Divorced	5	7.1
Total	70	100

Perception of health status prior to completing the LAQ

Sixty seven of the men (96%) considered themselves to be fit and well. Two of these men had recently under gone coronary bypass surgery. Three men identified themselves as unfit.

Identification of serious illness

The three men who perceived themselves to be unfit identified their illnesses. Two men had been treated for cancer. One man had prostate cancer and one had bowel cancer. Although these men when phoned by the researcher indicated that they felt well, they had identified themselves as unfit as they had not yet been cleared of the disease. The third man was an insulin dependent diabetic. None of these men were excluded from the study.

The availability of men's health information

When asked to indicate if they thought it was difficult to obtain men's health information twenty nine (41.4%) answered yes and 31 (44.2%) answered no. Ten men did not answer the question (Table 12)

Table 12

Do you find it difficult to obtain men's health information ?

Considered men's health information is difficult to obtain	N = 70	% of sample
Yes	29	41.42
No	31	44.29
Did not answer	10	14.29
Total	70	100.00

Section 2: Lifestyle Assessment

The LAQ examines wellness status under six core dimensional headings: physical, social, emotional, intellectual, occupational and spiritual. The scores for each dimension is the percentage of the possible points for that area of the assessment. The highest possible score is one hundred. The higher the score the higher the level of wellness in that dimension (Table 13).

Table 13

Australian group wellness section scores

Group Score	Physical	Social	Emotional	Intellect	Occupat	Spiritual
Australian	71	71	78	70	78	58

To assist individuals to learn how the choices they make each day affect their overall health and well-being, the eleven wellness sub-categories scores are presented in linear graph form in the respondent report (Appendix D). Attention is drawn both to high scores and sub-category scores that are lower than 80%. This process empowers the individual to seek the information required to enable the necessary lifestyle changes to be made so that overall health and wellness status can be improved.

The Perth group lifestyle assessment scores are listed in (Table 14). The three lowest mean scores are exercise (commitment to maintaining physical activity), self care (behaviours which help one to prevent or detect early illnesses) and spiritual (level of ongoing involvement in seeking meaning and purpose in human existence, including an appreciation for the depth and expanse of life and the natural forces that exist in the universe). The highest mean scores were drug usage (the degree to which

one functions without the unnecessary use of chemicals); vehicle safety (behaviours which minimise chances of injury or death in a vehicle accident); occupational (satisfaction gained from work whether it be at a job school or home) and emotional awareness and acceptance (acceptance of feelings, including the degree that individuals feel positive and enthusiastic about themselves and their lives). The highest possible lifestyle assessment score for each section could not be identified from the data provided in the computer software guide book. The score for composite life score of 74.1 is the average of the eleven wellness category scores.

Table 14

Australian group lifestyle assessment scores

Wellness sub-category scores	Median	Mean	SD
Exercise	43.5	46.3	20.4
Nutrition	78.8	74.8	17.0
Self Care	60.7	58.6	14.0
Vehicle Safety	88.6	85.6	11.1
Drug Usage	90.0	88.5	9.5
Social Environmental	72.6	70.7	13.8
Emotional Awareness & acceptance	82.8	82.5	10.5
Emotional Management	76.1	73.7	12.1
Intellectual	75.0	70.2	17.9
Occupational	82.8	78.1	15.9
Spiritual	61.6	58.5	26.2
<u>Composite Life Score</u>	74.1	73.3	9.1

The effect of lifestyle and behaviours on the health risk status of the group was further examined in the health risk appraisal (Section 3).

Section 3: The Health Risk Appraisal

This section of the LAQ scores the results of questions 1 through 42 of the Risk Appraisal Section. None of the answers in the wellness inventory section affect these results. The analytical software permits attention to be drawn to lifestyle and behavioural risk factors affecting the health risk status of the group. These were listed as excessive body weight, lack of exercise, not wearing seat belts and smoking (Table 15). These findings were reflected in the top ten causes of death (Table 16).

Table 15

Identified major risk factors for group and number at risk.

Risk Area	Risk Level	N = 70	% of group at risk
Body weight	10% or above	48	68.57
Exercise	< once weekly	14	20.00
Seat belt use	80% or less	8	11.45
Smoking	Any	7	10.00

LAQ software calculations demonstrated that members of the Perth group when compared with the LAQ master sample group had an above average chance of dying within the next ten years of heart attack, lung cancer, oesophageal cancer and motor vehicle accident. Death due to stroke, suicide, HIV AIDS, other injuries and homicide was found to be average. Death due to cirrhosis of the liver was deemed to be 55% below average (Table 16).

Table 16

Group top ten risks of death

Cause of death	Group chance	LAQ average	% above average
1. Heart attack	1384	1240	12
2. Lung cancer	983	532	85
3. Oesophageal cancer	268	54	397
4. Suicide	216	216	Average
5. Stroke	187	188	Average
6. Motor vehicle injury	180	165	9
7. HIV Aids	172	172	Average
8. Other injuries	136	136	Average
9. Homicide/Assault	119	119	Average
10. Liver cirrhosis	115	255	55 below average

The difference between the biological age, appraised age and achievable age of the Perth group was calculated by the LAQ software. While the chronological age for this group of men is 49.87 years, the appraised age (health age) based on health history, risk factors and current lifestyle choices is 48.8 years. This means that the estimated risk of dying within the next ten years is the same as that for an average 48.8 year old male. The achievable age for this group was found to be 46.9 years. This means that if the men in the group made the necessary changes in their lifestyle and behaviours, the estimated risk of dying within the next ten years would be reduced. It would be the same as a male aged 46.9 years.

The identification of inherited risk factors

The inherited factors are established, by questioning if there is any familial history of diabetes or heart disease. Thirteen respondents identified family histories of diabetes or heart disease (Table 17). These individuals could be expected to have a higher risk of developing coronary artery disease or diabetes.

Table 17

Family history of diabetes or heart disease

Family history	N=70	% of sample
Diabetes and or heart disease	13	18.57
Middle age onset of diabetes	4	5.72
Natural parent or sibling with diabetes	9	12.85
One natural parent had died of heart attack before the age of 60 years	3	4.29
Uncertain about family health history	3	4.29
No family history of diabetes or heart disease reported	38	54.28

Accurate health risk appraisal is dependent on physical data. This includes blood pressure, weight, height, cholesterol levels and an accurate smoking history. Most of the men surveyed were unable to provide cholesterol data.

Respondent's knowledge of blood pressure data

Respondents knowledge about their blood pressure is recorded in Table 18. Six respondents had indicated that they were taking medication for hypertension. As only two men indicated that their blood pressure was high, it was assumed that the hypertension for the other four men must be controlled by their medication. It could

also be that some men say "I have high blood pressure" even if it is controlled by medication.

Table 18

Knowledge of blood pressure recordings

Answer	N = 70	% of sample
Blood pressure high (self reported)	2	2.85
Blood pressure normal or low (self reported)	36	51.42
Did not know if BP high, normal or low	32	45.71
Could not record diastolic or systolic reading	48	68.57

Lifestyle behavioural choice includes assessment of smoking, drinking, and driving habits.

Smoking habit assessment

None of the men smoked cigars or a pipe. Forty percent of the men had never smoked. Fifty percent had given up smoking. Ten percent still smoked. The average number of cigarettes smoked per day by those still smoking was fifteen. (Table 19).

Table 19

Smoking habits

Smoking habit	N = 70	% of sample
Never smoked	28	40.00
Used to smoke (had given up smoking)	35	50.00
Still smoke	7	10.00
Smoked 25 cigarettes per day	2	2.85
Smoked 30 cigarettes per day	2	2.85
Smoked 10 cigarettes per day	1	1.42

Seat belts and drink driving

Speed of travel, the wearing of seat belts and drink driving were considered (Table 20). All of the men drove to work on a daily basis. Thirty one (44%) of the men knowingly exceeded the speed limit on a daily basis by at least 15 kilometres per hour. Although wearing of seat belts is compulsory in Western Australia, six men indicated that they never wore their seat belts and two indicated that they wore seat belts only 70% of the time. When the eight men were contacted by the researcher, no occupational or medical reason for this behaviour was identified.

While 54 (77%) of the men indicated that they did not drink and drive, 12 (17%) of the men indicated that they had driven twelve or more times during the past month after they had drunk alcohol. In checking these drink drivers against occupation, it was found that five of the men were university lecturers, four were lawyers, and three were accountants. Four men who were identified as self employed business men had driven at least once after consuming alcohol during the past month.

Table 20

Driving Behaviours

Driving Behaviours	N = 70	Percentage
Exceeding speed limit daily > 15 kph	31	44.28
Never wore seat belts	6	8.57
Wore seat belts 70% of time	2	2.85
Drink driving > 12 times in last month	12	17.14
Driven at least once after consuming alcohol	4	5.71

Alcohol consumption patterns

When the degree of alcohol consumption was further examined (Table 21) it was found that 18 (26%) of the men in the group were non drinkers. Thirty five (50%) of the men consumed between one and three glasses of alcohol daily and 17 (24%) consumed more than three glasses of alcohol daily. When the total number of alcoholic drinks per week was considered 16 (23%) drank between eight and 24 glasses of alcohol per week.

When the researcher re-examined the answers provided by the twelve respondents who had indicated that they had driven twelve or more times in the past month while under the influence of alcohol, it was found that these men were within the sub group of nineteen men (27%) who consumed alcohol on between five and seven days per week.

Table 21

Alcohol consumption patterns

Alcohol Consumption	N = 70	Percentage
Non drinkers	18	25.70
Drink 1-3 glasses daily	35	50.00
> 3 glasses daily	17	24.28
Drink < 7 drinks/week	46	65.71
8 - 24 drinks /week	16	22.85
> 25 drinks/week	8	11.42
Drink < 2 days per week	33	47.14
Drink 2 - 4 days per week	18	25.71
Drink 5 - 7 days per week	19	27.14

Assessment of self care behaviours

Self care behaviours and environmental factors which could affect health risk status were assessed. Questions in the "men only" section explored the knowledge of the self testicular examination procedure and determined the frequency of testicular and prostate examination. Table 22 demonstrated that 32 (45.7%) of the men in the group had never had their prostate examined. The correlation between age and time since prostate examination was .84165 ($p = .000$).

Table 22

Timing of prostate examination by age group

Age group	N=70	< 1 yr. ago	One yr. ago	2 yr. ago	3 yr. ago	Never
40 - 45	16	2	2	1	1	10
46 - 50	27	7	0	2	2	16
51 - 55	14	6	2	2	2	2
56 - 60	13	7	1	1	0	4
Total	70	22	5	6	5	32

Thirty one (44%) of the men did not know how to examine their testes.

Twenty six (37%) indicated that they were not sure and 18% of the men considered that they did know how to undertake the testicular self examination procedure (Table 23). In addition, 52 (74%) of the men indicated that they rarely or had never practiced self examination of the testes. Furthermore, men were not having their testes examined by health professionals (Table 24).

Table 23

Knowledge of testicular self examination by age group

Age group	N =70	Yes	No	Not sure
40 - 45	16	2	7	7
46 - 50	27	5	11	11
51 - 55	14	3	7	4
56 - 60	13	3	6	4
Total	70	13 (18.6%)	31 (44.3%)	26 (37.1%)

Table 24

Frequency of testicular examination by self or health practitioner

Age group	Monthly	Occasionally	Never
40 - 45	0	5	9
46 - 50	2	3	23
51 - 55	0	3	11
56 - 60	2	1	11
N = 70	4 (5.8%)	12 (17.1%)	54 (77.1%)

Obesity, malnutrition and frequency of exercise

Obesity, malnutrition and frequency of exercise were identified as health related issues of concern for this group (Table 15). When the frequency of cardiovascular exercise (Table 25) is considered in combination with the degree and distribution of obesity in the group (Table 26) it appears that the men who are obese do not exercise regularly.

Eight of the men were considered to be underweight for their frame. Sixty two men were found to be overweight. The average weight excess was 12.3 kilos. The average percentage overweight for frames was 17.8%. The most obese group were aged 45 -60 (Table 26).

Table 25

Cardiovascular exercise activity

Exercise Frequency	N = 70	40 - 44 yrs	45 - 59 yrs	60 yrs
3 times week or more	14 (20%)	3 (4.3%)	8 (11.4%)	3 (4.3%)
1 - 2 times per week	17 (24.2%)	3 (4.3%)	14 (20%)	0
Less than once per week	39 (55.7%)	6 (8.6%)	33 (47.1%)	1 (1.4%)

Table 26

Degree and distribution of obesity in the group.

Degree of obesity	N=70	Percent	40 - 44 yrs	45 - 59 yrs	60 years
Underweight for frame	8	7.2%	4 (5.7%)	2 (2.85%)	2 (2.85%)
Overweight for frame	62	88.5%	8 (11.4%)	52 (74.28%)	2 (2.85%)
0 - 9% overweight	14	20%	1 (1.4%)	11 (15.7%)	2 (2.8%)
10 - 20% overweight	26	37.1%	1 (1.4%)	25 (35.7%)	0
> 20% overweight	22	31.4%	6 (8.5%)	16 (22.98%)	0

Consumption of high fibre and high cholesterol foods

Food consumption was also examined with two of the questions identifying the types of food consumed. High fibre was consumed on a daily basis by 67 (95.7%) of the

men. However, the results demonstrated that high cholesterol foods were consumed on a daily basis by 49 (70%) of the group.

Perceptions of health status

The perceived health status of the men was assessed in the demographics section prior to commencing the life style assessment and then more detail in the health risk appraisal. The findings are presented in Table (27).

Nineteen (27%) of the men considered that their health status was excellent, and 45 (64.3%) considered that their health status was good. Four men (5.7%) indicated that their health was fair and one poor. The latter category was confirmed to be accurate as five men indicated on their questionnaires that they were suffering from illnesses. Two had just come out of hospital following coronary by pass surgery, two had been treated for cancer (bowel and prostate) one was an insulin dependent diabetic. The diabetic identified his health status as poor. This suggests that this man considered himself to be unhealthy because of his diabetic state rather than being a controlled healthy diabetic.

Assessment of stress levels

Satisfaction with life, involvement in angry altercations and the presence of personal loss or grief in the past twelve months was also considered to give some assessment of stress levels. These circumstances predispose to the development of disease processes within a two year period. Fifteen (21%) of the men had experienced one serious loss and 4 (6%) two or more serious losses during the past year (Table 28). In terms of witnessing or being involved in a violent fight where there was a chance of injuring somebody within the past year, 66 (94%) answered either once or

never (Table 29). Four were not sure. In general however, the group were satisfied with their life (Table 30).

Table 27

Perceived Health Status

Perceived Health Status	N=70	% of sample
<u>Assessment in demographics section</u>		
Perceived to be fit and well	67	95.71
Perceived to be unfit	3	4.29
<u>LAQ Assessment</u>		
Considered health status to be excellent	19	27.15
Considered health status was good.	46	65.72
Considered health was fair	4	5.71
Considered health was poor	1	1.42

Table 28

Serious loss within the past year

Loss experienced in past year	N = 70	% of sample
Did not experience a serious loss	51	72.86
Experienced one serious loss	15	21.43
Two or more serious losses	4	5.71
Total	70	100.00

Table 29

Witness of or presence in an angry altercation

Witness or involvement in violent fight where there was a chance of injury in the past year	N = 70	% of sample
Once or never	66	94.28
Not sure	4	5.72

Table 30

Satisfaction with life

Value label	N = 70	% of sample
Mostly satisfied	49	70.00
Partly satisfied	19	27.14
Not satisfied	2	2.85

Section 4: The identification of topics of interest

Respondents were asked to select four topics from a list of forty three topics that they considered would promote personal growth. It was noted that the men often identified more than four topics to be of interest. The 70 men made 239 selections from among 34 choices. All topics selected have been included in the assessment. Table 31 ranks the topics in order of selection. The frequency of selection is expressed in numbers and as a percentage of the 239 selections made by the respondents.

Table 31

Topics of interest for personal growth

Selection Ranking	Topics Selected	N=239	Percentage
1	Self testes examination	23	32.9
2	Exercise programmes	19	27.1
3	Men's issues	15	21.4
4	Time management	14	20.0
5	Sexuality	13	18.6
6	Weight reduction	13	18.6
7	Stress reduction	13	18.6
8	Relaxation	10	14.3
9	Coping with anxiety	8	11.4
10	Enhancing relationships	8	11.4
11	Speed reading	8	11.4
12	Financial management	8	11.4
13	Recreation and leisure	8	11.4
14	Biofeedback for tension	7	10.0
15	Communication skills	7	10.0
16	Couple problems	6	8.6
17	Responsible alcohol use	5	7.1
18	Stop smoking	5	7.1
19	Nutrition	5	7.1
20	Ageing	5	7.1
21	Environmental issues	5	7.1
23	Depression	4	5.7
24	Parenting skills	4	5.7
25	Career planning	4	5.7
26	Medical self care	4	5.7
27	Assertiveness training	3	4.3
28	Overcoming fears	3	4.3
29	Spiritual values	3	4.3
30	Loneliness	2	2.9
31	Medical emergencies	2	2.9
32	Self esteem	2	2.9
33	Death and dying	2	1.4
34	Substance abuse	1	1.4

Summary

The comprehensive LAQ questionnaire has enabled the health risk and wellness status of the men in the study group to be examined within six dimensions and to be compared with American men (the LAQ group). This process has provided information which relates health risk status to lifestyle. Topics of interest to this group of men have been identified and information on the availability of men's health information has been obtained. The significance of the data collected and the results will be discussed in Chapter Six.

Chapter VI

DISCUSSION AND RECOMMENDATIONS

In this chapter, the significant findings will be discussed under the LAQ sections and essentially the same headings that were used for the presentation of the results. The implications of this research for nursing will be considered and recommendations made for future research.

Section 1: Personal data and demographics

The sample population

Men aged between 40 and 60 years were offered the opportunity to participate in this study. The age frequency distribution of the sample population demonstrated that 64% of the men were aged between 45 - 55 years. This could be due to the small sample size. Tickell's (1992) observation that Australian men in this age range wish to find out more about their health status is also confirmed. Sheehy (1995) and Katchadourian (1987) also reported that during the process of considering mortality and longevity status, middle aged men developed an interest in health issues and were more likely to take personal responsibility for their health status during their fifth decade.

Employment status

Major organisational restructuring within Australian organisations has meant that many middle aged men, and in particular those employed in middle management, are unemployed (Mackay, 1993). All of the respondents were employed. Sixty nine of the

men were employed full time. One man was employed part time and when contacted by the researcher indicated that he worked from home.

Occupation

The majority of the men in this study (96%) worked in white collar occupations that were also sedentary in nature. Fifteen men (21%) were employed as academics or lecturers and 15 (21%) worked in management or supervisory roles. Three (4%) were accountants and two (3%) were financial planners. Three (4%) were architects. Ten men (14%) were clerical workers or public servants. Six men (8%) were supervisory engineers. There was one teacher, lawyer, counsellor, commercial artist and a journalist. The blue collar workers (4%) were identified as a bus driver, three labourers and two servicemen. It was not possible to compare the health risk status of the two occupation classification groups due to the size discrepancy.

Education, and financial status

Fifty one percent of the men surveyed had received a tertiary education. Thirty four percent had a post graduate degree. The majority were employed in sedentary professional white collar occupations according to market research guidelines (Appendix J). Sixty eight percent of the men earned in excess of \$40,000. Thirty one percent earned in excess of \$60,000 per year.

These circumstances were reflected in the high intellectual and occupational dimensional scores recorded by the Perth group. These levels demonstrated that the men were employed in circumstances which provided mental stimulation, opportunities for the

expansion of personal knowledge and circumstances where this knowledge could be shared with others. Work as a primary frame of reference provided satisfaction and enrichment.

Perceptions of health status

An educated financial, upper middle class group often has an exaggerated perception of good health (Berger, 1994). This concept was supported by this study. Sixty seven of the men (98%) considered themselves to be fit and well. This perception was not supported by the LAQ group health and wellness status and health risk status scores. This group of men had an above average chance of dying within the next ten years of heart attack, lung cancer, oesophageal cancer and motor vehicle accident.

Time spent watching television

Fifty two of the men (74%) indicated that they watched between one and three hours of television on an average day. This finding suggests that these men spend most of their working day and leisure time in a sedentary position. The researcher contacted the thirteen men who indicated that they did not watch television on an average day. These men either worked late or attended meetings in the evening. Without exception, the thirteen men indicated that when not involved in work related activities they preferred to spend their evenings dining out, reading a book, or listening to music rather than watching television. The man who watched television for in excess of eight hours was a solo father with a pre school child. He worked from home. Television was on for most of the day. In the evenings he relaxed by listening to music or spending time with friends.

Marital status

Fifty four (77%) of the men were married. Five of the men were widowers. Twelve (17%) of the men indicated that they had broken marriages. Six were separated and six divorced. These findings support the American studies which identified marital disillusion to be common among professional men during middle age (Sheehy, 1981). There were no questions to identify if the 17 (23%) men who indicated that they were not married lived alone.

Section 2: Lifestyle Assessment

In this section of the LAQ, questions related to physical exercise, nutrition, self care behaviours; vehicles safety, drug usage and awareness; social and environmental factors; emotional management, awareness and acceptance; as well as intellectual, occupation and spiritual activities. Scores were developed which provided an indication of levels of wellness. These Australian group scores can be compared with the LAQ reference group (Table 32).

Table 32

Comparison of Australian wellness scores with the LAQ reference group

Group Scores	Physical	Social	Emotional	Intellect	Occupat	Spiritual
Australian	71	71	78	70	78	58
LAQ group	69	73	78	63	70	69

Comparison of Australian group wellness with the American LAQ reference group

The Perth group dimensional scores compared favourably with the LAQ reference group of men the same age. The Australian scores were lower in the social and spiritual dimensions, but scores in physical, intellectual and occupational dimensions were higher. There was no difference in the emotional scores.

The high Perth group scores in the physical, intellectual and occupational wellness sections of the lifestyle assessment may reflect education and financial status. Given the sedentary nature of the occupations the higher physical scores were unexpected. These findings may reflect the climatic differences between USA and Australia, with the Australians having more opportunity to be outdoors. While the type of physical activity undertaken by the men was not specifically identified, the academic respondents from the University campus had access to a supervised exercise programme during working hours.

When spiritual scores were compared, the Australian group was lower than the American group. This may reflect full employment and long hours of work. The Perth men may be so focused on their work that they have not yet considered the spiritual aspects of their lives. The spiritual dimension measures an individual's ongoing involvement in seeking meaning and purpose in human existence, including an appreciation for the depth and expanse of life and the natural forces that exist in the universe. This finding supports Biddulph (1995), Townsend (1994), and Gates & Hammond (1994) who recommended that Australian men need to be aware that work can create a spiritual imbalance. In addition, the majority of the men in the study were aged under 50 years. Men are slower to

develop their spiritual sense of self than women and often do not do so until well in to their fifth decade (Sheehy, 1981).

While there may be some concern at comparing an Australian population against an American reference sample, discussion with the National Wellness Institute in Wisconsin suggested that as lifestyles and morbidity statistics are similar, Caucasian populations could be compared. If other ethnic groups participated in the study however, it would be necessary to have the Australian morbidity and mortality statistic incorporated in the algorithms. This work is done by Carter Emory University in the United States (Personal communication, L. Chapin, September 1994). Fletcher (1993a) an Australian men's health researcher has compared Australian and American morbidity and mortality statistics and found them to be similar by age group.

Section 3: Health Appraisal

According to Hettler (1989) 16% of deaths can be attributed to heredity factors, 21% to the environment, 10% to the health system and 53% due to lifestyle choices. The major risk factors identified for the group which related to life style choices were: body weight in excess of 10% or above, exercising less than once weekly, smoking and male risk taking behaviours which included not wearing seat belts and drink driving (Table 15).

Blood pressure and cholesterol data

To ensure accuracy of the personal result reports, the respondents were asked to be sure that they provided information about their weight, height, blood pressure and

cholesterol recordings. If the information was not provided, average figures from the LAQ reference group by age, were used in the calculations of health age and achievable age.

When asked to identify their systolic and diastolic blood pressure recordings, 48 (68%) of the men were unable to provide all of these details. The software provides for this situation by inserting a standard default rate for age. These findings suggest that the 48 men who did not know their blood pressure may not have visited a doctor recently or may have forgotten the details if the blood pressure was recorded. Few men were aware of their cholesterol data. These results support the findings of O'Hehir, (1994a, 1995) and suggest that general practitioners may not be recording their clients blood pressure on a regular basis as well as not making men aware of the significance of these vital signs.

Smoking

Ten percent of the sample group still smoked (Table 19). This habit placed these men at risk of lung cancer, emphysema, oesophageal cancer, coronary artery disease, impotence and prostate disease. The average number of years since quitting smoking was fifteen years. These findings suggest that public opinion against smoking and the annual QUIT programmes run in Western Australia are having an effect.

Male risk taking behaviour

Male risk taking behaviour was apparent in the arenas of drink driving and the wearing of seat belts. This deliberate flouting of road rules may demonstrate rebellious behaviour associated with the mid-life emotional crisis. The combination of drink and driving (Table 20) is of some concern, considering the health promotions that have been presented within the past three years focusing on this area. These findings appear to

support Huggin's (1995) opinion that alcohol consumption is an accepted Australian male behaviour with the potential to cause accidents, and the consumption of alcohol may also be seen to be a normal part of some work group subcultures.

In 1997 there is a growing critique of public health interventions, including levels of funding for and the success of health education. Nursing interventions and health education play a small part in changing identified men's health needs which may have their origins in unemployment or overwork in sedentary occupations. It is recognised however that nurses have a contribution to make in drawing men's attention to the effects of high alcohol consumption as well as drink driving and other risk taking behaviours (Fletcher, 1993a). Success in this arena could presuppose social change which could benefit other members of the community at large.

Prostate and testicular examination

The fact that 45.7 % of the men had never had their prostate examined (Table 24), appears to support the suggestion that men lack the necessary prophylactic knowledge, have difficulty requesting a prostate examination, or that medical practitioners are not taking the initiative to ensure that middle aged men at risk have this examination (O'Hehir, 1995; Pinnock, O'Brien & Marshall, 1996; Yung, 1993). It was also apparent that these men knew little about testicular examination (Table 23) but wished to receive information on this procedure. These results support the findings of O'Hehir, (1995), as well as nursing research undertaken by Webster, Patterson, Chin & Sharp, (1992).

Exercise, obesity, and nutrition

Table 25 outlined the distribution of obesity within the group. Most of the men were known to be employed in sedentary occupations. It appeared that the men either chose not to exercise, or did not appreciate that cardiovascular exercise undertaken for at least twenty minutes three times per week could benefit their health status. Not only does this activity assist with weight maintenance but it is beneficial in reducing stress. The combination of excess weight and lack of exercise predisposed the men in this group to cardiovascular disease, strokes, diabetes and osteoporosis.

Daily dietary content was considered in two questions within the health risk appraisal. Two food lists were provided. The first contained foods high in fibre and the second foods high in cholesterol and fat. The men were asked to answer yes or no as to whether or not they consumed these food groups on a daily basis. The results supported the studies undertaken by O'Hehir (1995). While high fibre was reportedly eaten on a daily basis by 95% of the men, 70 % of the men studied also consumed food high in cholesterol on a daily basis. Stanton (1995), a nutritionist and Egger (1992 & 1995) the developer of the Gutbuster men's weight loss program agree that men in general do not understand which foods contain fat or cholesterol. In addition, they appear not to understand the relationship between poor nutrition, lack of exercise, obesity and the onset of cardiovascular disease, diabetes and bowel cancer in middle age. Again the findings were similar to the results found in the South Australia (O'Hehir, 1995).

Section 4: Identification of topics of interest

Selection of topics of interest

When the topics selected by the men in this study group were listed (Figure 2), it was apparent that men are seeking information about stress related issues. This situation may reflect the emotional turmoil that is known to be associated with middle age as well as the constant need for men and their families to adapt to change.

It was noted that men in the Perth study often identified more than four topics to be of interest. This may demonstrate a desire for information or that these men had not correctly read the question. The additional selections were all included in the assessment of topics (Table 31).

Some men, and notably the ten men who indicated that they did not wish to receive a copy of their personal health and wellness assessment, did not identify any topics of interest. This may mean that the men already had the required knowledge. Alternatively it may mean that as they did not wish to receive feed back about the research or their personalised LAQ report, they did not tick the section on topics of interest.

The LAQ software has the provision to generate information regarding the selected topics for the respondent. This is why the selection is restricted to four topics. Should the LAQ be considered again for use in Australia, where possible, references should be made to Australian texts and services that are relevant to the topics selected. This will require changes to be made within the LAQ computer processing software.

Hall (1997) Western Australia	Donily (1994) Queensland	O'Hehir (1994) South Australia	Williams & Were (1993) Tasmania
Self testes examination	Managing anger	Stress management	Opportunities to learn
Exercise programmes	Coping with grief	Prostate Cancer	Coping with unemployment
Men's issues	Back care	Exercise, nutrition and weigh reduction	Using services that exist
Time management	Learning to relax	Impotence	Improving fitness
Sexuality	Communicating better	Male sexuality	Standing up for your rights
Weight reduction	Prostate and testicular cancer	Testicular cancer	Managing money
Stress reduction	Checking BP and blood sugar	Male mid-life crisis	Job applications and job interviews
Relaxation	Standing up for yourself and your rights	Recovery from heart attack	Communicating better
Coping with anxiety	Enjoying life more	Male role in the family	Enjoying life more
Enhancing relationships	Managing money	Suicide and violence	Becoming more confident
Speed reading	Improving fitness	Men and disease	Developing friendships
Financial management	Coping with unemployment		Coping with sadness loss separation
Recreation and leisure	Parenting: dad or step dad		Managing anger
Biofeedback for tension	Developing friendships		Learning to relax
Communication skills	Retirement		Learning to cook
Couple problems	Check ups STDs and contraception		Check ups STDs contraception
Responsible alcohol use	Becoming more confident		Parenting being a dad or step dad
Stop smoking	Services available to men		Smoking alcohol drug and gambling
Nutrition	Applications and job interviews		Learning to relax
Ageing	Courses available		
Environmental issues	Mid-life crisis		
Depression	Learning to cook		
Parenting skills	Smoking alcohol drugs and gambling		
Career planning	Impotence		
Medical self care	Conflict resolution		
Assertiveness training	Facing hopelessness		
Overcoming fears	Teenage male suicide		
Spiritual values			
Loneliness			
Medical emergencies			
Self esteem			
Death and dying			
Substance abuse			

Figure 2

Topics identified to be of interest to men in Australia

Topics of interest to men identified in Australian research

In terms of topics identified to be of interest to men (Figure 2), it is difficult to compare the West Australian findings with other research undertaken in Australia. The topic lists were different. While the LAQ asked respondents to identify four topics of interest, the Innisfail and Tasmanian studies asked respondents to rate a list of topics on a Likert scale in degree of usefulness. The trend of listing stress management related topics ahead of physical issues supports the findings of the community health needs surveys undertaken by Donily (1994), O'Hehir (1994), and Williams and Were (1993). This topic list may assist future researchers to develop questions related to topics of interest to middle aged men.

The availability of men's health information

When the respondents were asked if they found it difficult to obtain information on men's health issues, 29 (41%) of the men answered yes, 31 (44%) answered no, and 10 (14%) did not respond (Table 12). When contacted, most of the non respondents indicated that they had never tried. Given their educational qualifications, it could be assumed that most of the men in the study group could access a library.

Inspection of two large suburban community libraries demonstrated that there was no book section labelled men's health. Furthermore, there was just one title which included the words 'men's health' in the university library. A check of major book shops in Perth by the researcher, identified only three books that incorporated these words on the label and three books relevant to mid-life crisis. The shop keepers indicated that books on men's health were not good sellers.

Specific men's health educational leaflets were not available from the West Australian Health Department. Information on diet, exercise, the benefits of quitting smoking and reducing alcohol consumption were however available. Television advertising was also run on these topics during 1995 and 1996.

The lack of readily available information on specific men's health issues, suggests that the men who answered no to this question may consider that they could obtain information from their medical practitioner or the above mentioned sources. A convenience check of ten medical practitioner's surgeries identified no pamphlets or booklets on men's health issues. One practice however, had a newsletter which included an article on the importance of learning to undertake testicular self examination. Posters relevant to women's health were identified, including breast self examination and mammogram screening. This means that men would need to ask for information.

Pamphlets on nutrition, bowel cancer, stress exercise, AIDS and prostate disease have been produced by a pharmacy chain and are available throughout Australia. Information on prostate cancer, was available from the Cancer Foundation (Cancer Foundation 1994, 1995a, b). The Urological Research Institute at Sir Charles Gairdner Hospital had leaflets on prostate cancer and self testicular examination as well as a newsletter for the Prostate Cancer support group. These locations however are unlikely to be frequented by the general public on a regular basis. Again these results support O'Hehir (1995) and Bentley & Booth (1994) who reported that it is not easy for the general public to find information about men's health issues in general and emotional and psychosocial and stress related issues in particular.

The use of the Lifestyle Assessment Questionnaire as an educational tool

The National Health and Wellness Institute Inc. Lifestyle Assessment Questionnaire (1989) has been invaluable in providing a structure for this study. Men's health issues have been identified and a range of topics of interest determined. Furthermore, the anecdotal feed back from the men involved, suggests that the experience of completing the questionnaire is educational.

A number of men voluntarily sent notes back with their questionnaires and result sheets. These communications indicated that the men had enjoyed participating in the study. They also felt that the experience had redefined personal perceptions of health and well-being. Most had for the first time considered the emotional and spiritual components of health. They had also been stimulated to consider if their life was in balance and if their lifestyle and socialised behaviours affected their health and wellness status. This is an objective of health risk appraisals.

Four of the men indicated that the "men only" section prompted them to attend their medical practitioner so that their prostate could be examined and they could learn the procedure of testicular self examination. It was also stated that the questionnaire made it possible to obtain information that under normal circumstances men would be reluctant to request.

The fact that information on testicular self examination was the most frequently chosen topic appears to support this view. The men's level of awareness may also have been raised by the national Apex "Check below the belt" promotion and the fact that testicular self examination had been a television news topic during 1995 (Hockey, 1994a,

b, 1995). While self testicular examination is most relevant to men younger than the sample, as middle aged men are known to share health information (Sheehy, 1981), these men have the potential to teach younger family members.

The assessment of health status, lifestyle and quality of life does appear to provide health professionals with an opportunity to raise issues that men may not normally initiate. Completion of health risk appraisals and the review of the results provide an opportunity for educational information to be disseminated. The American experience has demonstrated that nurses can use the instrument in a variety of settings. These range from General Practitioner's surgeries, in individual's homes and within organisations as well as at health promotional fairs (Goeppinger & Labuhun, 1992).

A number of men in this study chose to keep the questionnaire. Part of the educational value of the LAQ, is that the questionnaire can, under normal circumstances, be kept as a reference source for the respondent to repeat at their leisure. This enables learnt information to be reinforced and the effect of lifestyle changes to be measured at a later date (National Wellness Institute, 1989, 1992).

A guide for the way that the LAQ can be used by nurses as a nursing intervention tool to assist men experiencing the mid-life crisis is demonstrated in Figure 3. Based on the systems theory, this flow chart identifies the stress-illness and coping-wellness cycle in middle age. Assessment of lifestyle and health risk status provides an opportunity for nurses to draw men's attention to attitudes, behaviours, beliefs and knowledge deficits which may be affecting their level of wellness, their ability to cope with the mid-life

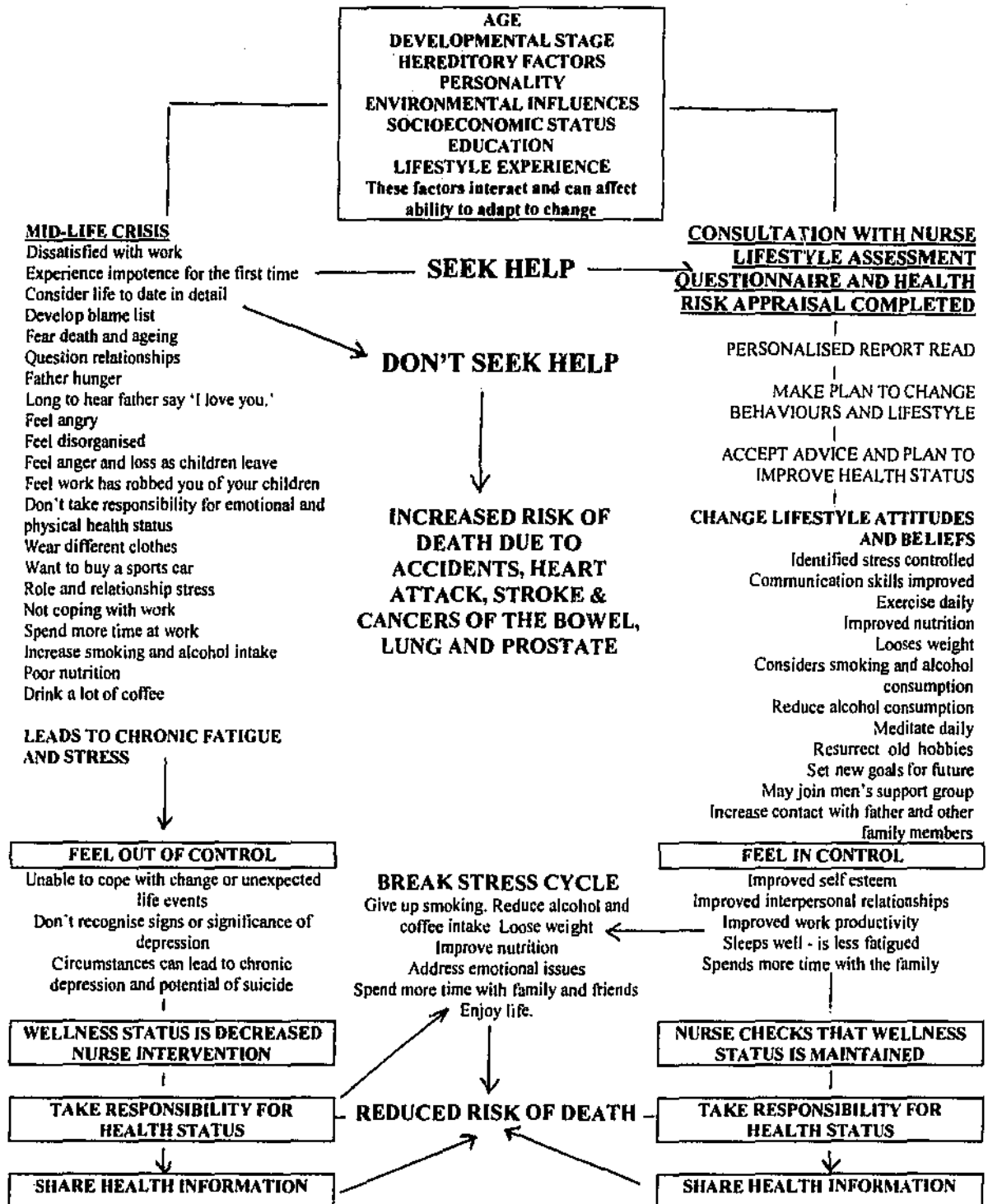


Figure 3

The stress-illness and coping-wellness cycle in middle age

developmental process and the stress associated with the need to constantly adapt to change.

Nurses can provide information to assist men to change their lifestyle, attitudes and beliefs. In this way the stress cycle can be broken, reducing the risk of death due to lifestyle related disease processes. Men who are not aware of the chronic stress that can be associated with the mid-life crisis and who also do not maintain a healthy lifestyle, are at increased risk of chronic fatigue, depression, and death due to heart attack, stroke, accidents, cancers and possibly suicide.

Implications for nursing

The process of completing the literature review and undertaking this study has identified that there is a major need for nurses to undertake research in the area of men's health on a broad range of topics. There are however impediments to nurses who wish to undertake research in this specialty field.

The availability of information on men's health issues.

1. Schools of Nursing need to be aware that the difficulty in identifying and obtaining articles and research papers does not permit research to be completed within a short time frame.
2. Information relating to men's health issues internationally is fragmented, non scientific and is often found in newspapers, organisational newsletters, magazines and periodicals. Many of these non scientific articles provide a valuable 'grass roots perspective.'

3. Funding needs to be made available to compile a comprehensive data base of these articles for reference purposes.
4. The few Australian nursing researchers in this field should be invited to contribute to that reference data base.
5. The data base should be available and accessible to all members of the community.
6. It is recommended that funding be made available for the establishment of a men's health and men's issues category in all university and Schools of Nursing libraries.
7. Men's health, women's health and family issues are multi-disciplinary topics. The selection of texts needs to be sufficiently large so as to encompass physical, developmental and gender issues as well as occupational health and holistic wellness.
8. Funding needs to be made available for the publication of a nursing text relating to men's health issues
9. To facilitate men's health research it is essential that funding be available for nurses to be able to study the issues full time.

Recommendations for nursing education

Bozett & Forrester (1989), Fletcher (1993a), and Winke (1990) suggest that nursing schools should consider the development of a research orientated men's nurse practitioner course at a Masters level.

1. Nurses need an appropriate specialty postgraduate programme which combines theory and clinical practice.
2. Nurses already have primary health care skills that can be used with individuals in a group care setting. Consideration should be given to a programme that could lead to

registration as an independent Health and wellness practitioner. This would require a minimum of two years, and possibly a third year, the latter dedicated to research and practical experience.

3. The support from the community for the 1995 semester course and distance education Certificate Course in Men's Health available from Curtin University for Technology in Perth, has confirmed the need for health professionals and men's groups co-ordinators to extend their knowledge in this area.
4. There is still a need however, for a nursing school to develop a comprehensive multi-disciplinary postgraduate course which incorporates the following subjects. The literature review from this study suggests that nurses must be able to teach nutrition, parenting skills, communication and conflict resolution skills. Information on the relationship between men's health status and models of masculinity, recognition of men's unique health needs, developmental psychology and counselling roles of the nurse are significant topics for consideration and inclusion in such a program (Allen & Whatley, 1986; Forrester, 1986; Fletcher, 1993a, b, c; Kaufman, 1987).
5. The following topics are recommended for inclusion:-
 - An introduction to men's health issues - the historical perspective
 - Why is men's health such a serious issue?.
 - Constructions of masculinities: the historical focus
 - Constructions of masculinities: What does it mean to be or not to be a man in Australian society?

- Identification of the positive and negative aspects of Australian culture that impact on the enculturation and socialisation of men.
- Identify the legacies of feminism, socialisation and enculturation that impact on the men's health status
- Is social inequality associated with Australian men's health risk behaviour
- Men's sub cultures : their role and implications for men's health
- HIV/Aids: Gay men and general practice
- Gay and bisexual young men:
- Older men (straight gay and bisexual)
- Aboriginal men: mortality and morbidity. The impact of alcohol and tobacco
- What are the special health needs of Aboriginal men?
- Identification of the special needs of other ethnic groups of men
- The ethical implications of re-negotiating male gender roles
- Constructing a new androgynous society: implications for men and their health
- Developing new models of masculinity: What needs to be discarded?
- Changing the enculturation of boys in Australia: the implications for men's health
- The education of boys within a multi-cultural society
- Male development through the life span: the developmental transition periods
- Age related men's health issues: childhood, adolescence, young adult, middle age, retirement and old age
- The identification of health educational needs for each of these age groups

- Men and aging - the emotional and social issues
- Men and wellness factors: the stress disease relationship
- Identify factors and strategies that may contribute to wellness models of health, particularly for traditional at risk groups of men
- Healthy lifestyle, health promotion and men. Do men get the message? Is this reflected in their behaviour?
- The dissemination of health educational information to men: How is it now?
How could the process be improved?
- The role of service organisations in men's health promotion
- Men's groups: fulfilling men's needs - how, when and where?
- The development of the men's health movement in Australia
- Nutritional knowledge, obesity and programmes that address these issues
- Weight loss counselling: assessment of levels of obesity, nutritional needs and caloric intake levels
- Teaching men to purchase health foods
- Teaching men to cook
- Men and heart disease
- Men and cancer
- Screening for prostate cancer: what are the issues
- Testicular cancer: teaching testicular self examination process
- Men's sexual health and dysfunction in Australia
- The role of the nurse : sexual dysfunction and incontinence education

- Men and deafness: examining hearing levels in the community and industry
- Men in general: health promotion within general medical practices
- Developing men's health educational models
- Developing a more healthy lifestyle for men
- Physical exercise: for young, middle aged and older men
- Assessing community health educational needs
- Establishing a men's health education programme in a community
- Men and masculinity. The relationship with control, power, abuse, domestic violence and crime.
- Men: the social, emotional and mental health issues
- Male communication patterns - the differences between men and women
- Men and grief
- Developing counselling skills
- Health and wellness counselling
- Relationship counselling
- Grief counselling
- Conflict resolution skills
- Coping with pregnancy and parenting: The impact on young and middle aged parents
- The dual career family partnership: parenting issues
- Ante-natal and postnatal education for fathers
- Teaching parenting skills

- Men's health policy: where is it now in states, regions and Australia?
- Men's health - where to now?

Recommendations for future research

Changes that should be made to this questionnaire, should this study be replicated

1. Suggested changes to the Australian version of the personal data and demographics section include:
2. It is recommended that there be three answer options for question 15 relating to the availability of men's health information: Yes, no and never tried.
3. An additional question should be added to identify where men currently obtain information. Answer options could include: newspapers, magazines in general, men's magazines, books, general practitioner, nurse, family, friends, men's group, pharmacy and any other source.
4. It is recommended that this research should be replicated with a larger sample population and mixed gender group, with an age group that extends from 25 - 75. This might identify the age when changes in emotional health status occurs during the associated developmental periods. In addition, periods of interest in health status, as well as topics of interest to both men and women should be able to be determined and compared.
5. To ensure the accuracy of the physical information, weight, height, blood pressure and cholesterol levels should be measured and recorded by the researcher. If this

information is not provided by the respondent, the health risk appraisal is calculated using a default value data from the American reference group.

6. When identifying sub groups for data analysis it is recommended that they be the same as Australian statistical data collection processes to enable comparison between American and Australian populations.

Men's health research topics.

A number of topics for research have been identified from within the literature that was reviewed for this study. All would be suited to nurses undertaking an Honours or Master of Nursing Degree.

1. The relationship between nutrition and men's emotional health status should be explored (Cook and Benton, 1993). It is suggested that the study be undertaken within a corporate structure. Currently there is anecdotal evidence which suggests that many management staff take their tea and meal breaks at their desks, often working ten to twelve hours per day. A study of this type may identify both nutritional deficits as well as stress levels and fatigue levels which appear to accumulate toward the end of the working week. As many men also work on weekends it appears that insufficient leisure time may also impact on time for shopping and meal preparation.
2. There is a need for funded longitudinal research. In particular it is recommended that adolescents be followed through to middle age to determine changes in emotional status and life satisfaction (Sheehy, 1996).
3. The concept of the absent father and its perceived relationship with the mid-life crisis needs to be explored.

4. Men's perceived middle age fears and emotional issues need to be identified.
5. The lived experience of mid-life needs to be documented.
6. Identified fears and emotional issues significant to men need to be related to developmental age. Many of the fears and socialisation issues may be normal when developmental age is taken in to consideration. Furthermore, this information would be invaluable for mentors functioning within men's groups as well as to nurses counsellors.

Development of software for health and wellness research

Informatic software suitable for health needs and health risk status assessment needs to be developed (Sandhu and Jayasuriya, 1994; Wass, 1994).

1. The format utilised by Sheehy (1996) in standardising past epidemiological and environmental data to assist providers to identify future trends within population groups looks to be excellent for identifying social trends.
2. Consideration could be given to developing an Australian version of the instrument used in this study in association with the internationally recognised National Health and Wellness Institute, Wisconsin, U.S.A.

Recommendations for nursing practice interventions

Nursing Roles for graduates of a Master of Nursing Men's Health Programme

1. Nurse graduates of a Master of Men's Health programme could work with and provide support for community groups and men's groups in particular as recommended by Fletcher (1993a).

2. Nurse health wellness counsellor practitioners could work closely with general medical practitioners and within group practices. Currently medical practitioners within a bulk billing payment system do not have the time to consider the psychosocial issues. Many of the client problems that do surface do not require the services of a psychologist or psychiatrist (O'Hehir, 1995). Nurses could identify and address total health and wellness status, as well as being able to address psychosocial problems at their source.
3. The LAQ could be completed in association with a physical examination. Following the recording of weight, height, blood pressure and preferably cholesterol levels, the LAQ survey could be explained. While the practitioner is seeing another client, the respondent could enter the data directly in to a lap top computer. This process takes approximately 45 minutes. The individual's report is then produced. The results can be discussed, and an initial plan made to make any necessary lifestyle changes. The process can then be repeated at a later date to assess if behavioural changes have been maintained.
4. Nurses could make men more aware of physical examination details. A wallet sized card that included details of blood pressure, cholesterol, height, weight and immunisation status as well as identifying when the next physical examination was due could be helpful.
5. Nurses could work as consultants to industry to develop health educational programmes and strategies to improve the health and wellness status of staff.
6. Nurses could also function as consultants within the community at large and work in close association with social workers.

7. The utilisation of skilled nurses in counselling roles not only has the potential to fill the current gap in support systems but has the potential to reduce community medical and pharmaceutical costs.

Addressing parenting issues and providing support for parents during pregnancy

Sheehy (1996) has identified some parenting issues associated with delayed parenthood, as well as second and blended families during middle age. Many couples are not prepared for parenthood. Many new parents are in their third and fourth decade. Set in their ways and not having received any educational information, they find that personal space is invaded by children and each other. Interpersonal relationships are often disrupted through what should be a happy event (Sheehy, 1996).

1. A partner's pregnancy has been found to overwhelm some men and there is a need to develop appropriate educational and support programmes (Nursing Review, 1996b; Personal communication P. O'Donogue, Community Nurse, Bunbury, Western Australia, November 15th, 1996).
2. In addition to the current ante-natal instruction that is available, it is recommended that couples be prepared for early discharge from hospital, the post partum period as well as the possible impact that babies and toddlers may have on both personal space and their interpersonal relationships. Education in this area is still ante-natal, labour and disease orientated (Nursing Review, 1996b; Personal communication P. O' Donogue, Community Nurse, Bunbury, Western Australia, November 15th, 1996).
3. There is a need for support, education and counselling for blended families.

The Occupational Health Nurse

Townsend (1993) and Sheehy (1981) both identified that the mid-life crisis can commence in the early thirties with dissatisfaction at work.

1. The LAQ assessment used in this study with its individualised report, provides nurses with the opportunity to identify and discuss topics of interest as well as physical, emotional and work issues.
2. It is recommended that nurses use the LAQ to assist men to identify the effect of work stress on family and within the community.
3. Nurses should also write about these issues in organisational newsletters as well as within educational programmes.

Health-Wellness Advisor and educator role in the community

As the life span increases, the trend will move towards developing policy and educational programmes which will encourage personal responsibility for health status to reduce health costs (Wass, 1994).

1. It is essential that nurses consider how individuals can be educated and empowered to take personal responsibility for their health and wellness status.
2. Nurses need to recognise the contribution that Men's service clubs such as Apex and Rotary are making in disseminating men's health information on testicular cancer and prostate disease.
3. Nurses need to be aware of the excellent men's group model developed by The Men's Health and Well-being Association (W.A). Inc.

4. Nurses need to both support and work closely with men's groups. Men of all age groups and middle aged men in particular, benefit from the opportunity to develop friendship and to gain support from other men in a non threatening environment.
5. Nurses should offer their assistance with personal development and health education programmes run by men's groups.
6. Nurses can contribute to and support these organisations in a health-wellness advisory role.
7. Nurses also need to provide support and to work closely with the network of men's support groups which are currently evolving within Australia (Fletcher 1995a, b).

The role of the school nurse

Nurses should consider the role of the school nurse in relation to boys and men's issues. Already initiatives have commenced to address the socialisation of boys in schools and gender equity differences (Fletcher, 1995a, b). Parents however, are not yet aware of the role that they play in developing their children's societal bias, mores or the effects that some of the perpetrated beliefs can have on health status. Parents who communicate in an autocratic manner contribute to the low self esteem which may be associated with adolescent suicide and girls with anorexia (Browne and Fletcher, 1995).

1. Nurses can liase with school staff and parents to ensure that children are taught about self esteem promotion, goal setting and problems solving from an early age.
2. Consideration also needs to be given to the identification of topics that will assist students and their parents to adapt to the rapidly changing world.

3. The compulsory incorporation of health educational modules in both the primary and secondary school curriculum should be considered. In this way anatomy and physiology, nutrition, meal planning, meal preparation, safe sex, planning for pregnancy, and relationships knowledge deficits can be addressed.
4. School health nurses report that there is evidence that schools are already cutting out health education due to funding difficulties (Personal communication M. Whittle CHN, November, 10th 1995). This is both a nursing and community issue and nurses need to raise their concern to schools, health officials and politicians.

The production and availability of men's health educational materials

This research activity has demonstrated that men have health knowledge deficits. Furthermore, many men may not have the base knowledge to understand health promotional messages. The difficulties that members of the public experience obtaining men's health information needs to be addressed by nurses. When this project was considered, the researcher was unaware that information on men's health issues and those that affect middle aged men in particular would be so difficult to obtain. Nurses can assist by:-

1. Networking with other Australian men and women interested in men's health and lobbying for urgent funding to be made available for research prior to the production of health educational pamphlets.
2. Nurses should then market these educational pamphlets to men.
3. Nurses need to consider where men's health information should be made available to the public. Research is demonstrating that men do read newspaper and magazine

articles regarding men's health issues before they consult their general practitioner (Pinnock, O'Brien and Marshall, 1995).

4. Nurses can contribute men's health related articles to periodicals and newspapers.
5. Nurses need to make men and their families aware of the availability of men's health information from some pharmacies.
6. Nurses need to identify in their community if specific information is available from organisations such as the Heart Foundation, The Cancer Society or the Urological Research Foundation.

Men's health policy

The development of men's health policy has not occurred without opposition. Men have feared change, and women have expressed concern that government funding might be diverted from research and medical facilities for women. Some men have feared that attempts may be made to stop men from being men. Others have been more enlightened. Men's health has been seen as a women's health problem as well as being an issue that can affect a whole community (Bucchorn, 1992 & 1995, Fletcher, 1993, 1995a, b; O' Hehir, 1995).

1. It is important that nurses be aware of the draft National Men's Health Policy (Commonwealth Department of Human Services and Health, 1996).
2. Nurses need to both contribute to this policy and to lobby politicians for its adoption within National Health policy
3. Nurses should be involved in the development of Australian primary health care policy with recognition of the role of nurses within the field of men's health (Prenesti, 1995a).

Summary

This study has provided insight in to the complexity of Australian men's health issues. In addition to providing insight in to men's health issues in general, the review of literature has demonstrated that between the age of forty and sixty years men may experience difficulty coping with physical, emotional and psychosocial issues. Stress associated with the developmental process can be related to a number of specific personal concerns which include father son relationships, dissatisfaction with work and the need to face up to inevitable mortality. This stress can be compounded by knowledge deficits as well as by a socialised reluctance to seek information and advice. Chronic fatigue and stress may lead these men to feel out of control when they feel unable to cope with change or unexpected life events. Interpersonal relationships can be affected. Prolonged stress increases the risk of death due to heart attack, stroke accidents, cancers of the bowel, lung and prostate. Often depression results which has the potential to increase risk of accidents and has the potential to lead to suicide.

The LAQ instrument has been demonstrated to be a valuable resource for nurses. Completion of the questionnaire assists men to recognise their behaviours associated with their health risk status and to identify knowledge deficits. Participation in the research process and the personalised report both educates and provides direction for men to consider if their life is in balance. Nurses and their clients can then develop plans to make behavioural and life style changes which have the potential to improve health and longevity. This interaction occurs at a time when men are developmentally most likely to

be interested in improving their wellness status and at a time when men are likely to share this information with other men.

The data obtained in this study has provided base line information for future research. The findings have also supported the limited Australian men's health research that is available at this time. Topics for future research have been identified.

Nursing interventions and direction for the development of health educational materials for men have been provided. Recommendations include the need to develop postgraduate educational programmes for nurses which will provide counseling skills as well as a better understanding of the psychosocial issues associated with the mid-life emotional crisis. Fletcher's (1993) suggestion that there is a need for Australian nurses to play a major role in developing health educational materials for men, to support established men's support groups and to contribute to men's health policy has been confirmed.

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Appendix A

The Instrument

THE INSTRUMENT (Australian Demographic Section)

SECTION 1: PERSONAL DATA INSTRUCTIONS: (Australian)

Please complete the following general information about yourself by circling marking answers to questions. Transfer answers 1-9 to the LAQ answer sheet. Please take your time and read each question carefully.

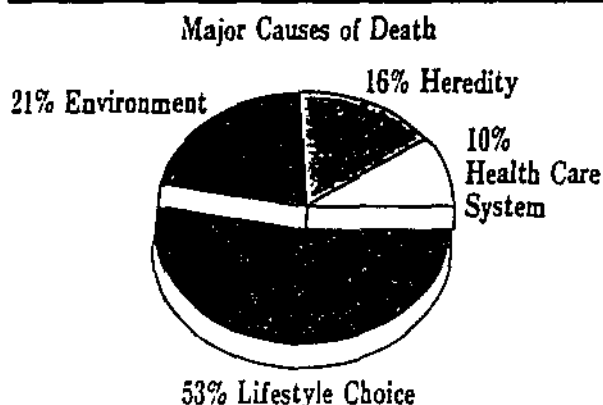
1. **Sex** (a) male (b) female
2. **Race** (a) white (c) mediterranean (d) asian (e) aborigine (f) other
3. **Age**
4. **Height** (Please identify feet and inches or centimetres)
5. **Weight** (Please identify pounds or kilograms)
6. **Body frame size** (a) small (b) medium (c) large
7. **Marital status** (a) married (b) widowed (c) separated
(d) divorced (e) single (f) cohabiting.
8. **What was the total gross income of your household last year?**
(a) under \$12,000 (b) \$12,001 - \$20,000 (c) \$20,001 - \$30,000
(d) \$30,001 - \$40,000 (e) \$40,001 - \$50,000 (f) \$50,001 - \$60,000
(g) over \$60,000
9. **What is the highest level of education you have completed?**
(a) primary (b) some high school (c) high school graduate
(d) TAFE or technical school (e) University graduate
(f) postgraduate or professional degree
10. **On the average day, how many hours do you watch television**
(a) 0 hours (b) 1-3 hours (c) 4-7 hours (d) more than 8 hours
11. **Employment:** (a) unemployed (b) casual (c) part time (d) full time
12. **Occupation:** _____
13. **Health status:** (a) Fit and well (b) Unwell
14. **Illness** (a) heart disease (b) cancer (c) kidney disease (d) other serious condition
15. **Do you find it difficult to obtain men's health information?** (a) yes (b) no

Appendix A continued

THE LIFESTYLE ASSESSMENT QUESTIONNAIRE (USA)

National Wellness Institute, Stevens Point Wisconsin.

You and Your Lifestyle Are the Major Determinants for Joyful Living



The circle graph to the left indicates the factors which contribute to your enjoyment and quality of life. While medical professionals contribute to the quality of your life, this graph clearly shows that the majority of those factors which contribute to your well-being are controlled by you. As you make responsible, informed choices, your chances of improving your health and well-being increase.

The LAQ's Role . . .

We believe this instrument is useful in helping individuals identify the most likely causes of death and disability. More importantly, it identifies those areas of self-improvement which will lead to higher levels of health and well-being.

The areas assessed in the LAQ emphasize the importance of creating a balance among the many different aspects of your lifestyle. Each of these areas affects one another and determines your overall wellness status. Also, each provides an opportunity for learning, making responsible decisions, and personal growth.

We invite you to use the information provided by the LAQ to your best advantage to increase your level of wellness.

Words from the Past

Wellness is a term that has enjoyed growing popularity during the past several decades. Although the term was introduced relatively recently, the concept of prevention has been present for centuries. The following passages provide a brief glimpse of the wellness philosophy through the years. Wellness is a movement which has become a major part of modern culture and is the most important weapon available to combat lifestyle illnesses.

"For many years, while engaged in the practice of medicine, the author of this volume has been more and more impressed with the idea that the causes of suffering, diseases, and premature deaths, which we witness around us on every hand, lie near our own doors . . . and that the men and women of today, are, at least, equally as responsible for existing suffering, as those who have gone before them, and often much more so. In fact, he feels satisfied that by far the greatest portion of all the suffering, disease, deformity, and premature deaths which occur are the direct result of either the violation of, or the want of compliance with the laws of our being; calamities, which, were the requisite knowledge possessed by the community, can and should be avoided."

—JOHN ELLIS, M.D., 1859

"It is universally admitted at the present time that preventive medicine is of far greater importance than curative medication, and many of the most eminent members of the profession are devoting themselves exclusively to this branch."

—J. H. KELLOGG, M.D., 1902

"To ward off disease or recover health, men as a rule find it easier to depend on the healers than to attempt the more difficult task of living wisely."

—RENE DUBOS, Ph.D., 1959

"It's what you do hour by hour, day by day, that largely determines the state of your health; whether you get sick, what you get sick with, and perhaps when you die."

—LESTER BRESLOW, M.D., 1969

Section 1: PERSONAL DATA

INSTRUCTIONS:

Please complete the following general information about yourself by marking your answers in the appropriate places on the LAQ answer sheet. Please take your time and read each question carefully.

Complete
Sheet
Personal
Data
Australian

1. Sex
 - a) male
 - b) female
2. Race
 - a) White
 - b) Black
 - c) Hispanic
 - d) Asian
 - e) American Indian
 - f) other
3. Age
4. Height (feet and inches)
5. Weight (pounds)
6. Body frame size
 - a) small
 - b) medium
 - c) large
7. Marital Status
 - a) married
 - b) widowed
 - c) separated
 - d) divorced
 - e) single
 - f) cohabiting
8. What was the total gross income of your household last year?
 - a) under \$12,000
 - b) \$12,000-\$20,000
 - c) \$20,001-\$30,000
 - d) \$30,001-\$40,000
 - e) \$40,001-\$50,000
 - f) \$50,001-\$60,000
 - g) over \$60,000
9. What is the highest level of education you have completed?
 - a) grade school or less
 - b) some high school
 - c) high school graduate
 - d) some college or technical school
 - e) college graduate
 - f) postgraduate or professional degree
10. On the average day, how many hours do you watch television?
 - a) 0 hours
 - b) 1-3 hours
 - c) 4-7 hours
 - d) more than 8 hours
11. Where do you live?
 - a) in the country
 - b) in a city
 - c) suburb
 - d) small town
12. If you live in a city, suburb, or small town, what is the population?
 - a) under 20,000
 - b) 20,000-50,000
 - c) 50,001-100,000
 - d) 100,001-500,000
 - e) over 500,000

Section 2: LIFESTYLE

INSTRUCTIONS:

This section will help determine your level of wellness. It will also give you ideas for areas in which you might improve. Some questions touch on very personal subjects. Therefore, if you prefer to skip certain questions, you may. However, the more questions you answer, the more you will learn about your health and how to improve it.

Please respond to these statements using the following responses. If an item does not apply to you, do not mark it.

- A Almost always (90% or more of the time)
B Very often (approximately 75% of the time)
C Often (approximately 50% of the time)
D Occasionally (approximately 25% of the time)
E Almost never (less than 10% of the time)

PHYSICAL EXERCISE

Measures one's commitment to maintaining physical fitness.

1. I exercise vigorously for at least 20 minutes three or more times per week.
2. I determine my activity level by monitoring my heart rate.
3. I stop exercising before I feel exhausted.
4. I exercise in a relaxed, calm, and joyful manner.
5. I stretch before exercising.
6. I stretch after exercising.
7. I walk or bike whenever possible.
8. I participate in a strenuous activity (tennis, running, brisk walking, water exercise, swimming, handball, basketball, etc.).
9. If I am not in shape, I avoid sporadic (once a week or less often), strenuous exercise.
10. After vigorous exercise, I "cool down" (very light exercise such as walking) for at least five minutes before sitting or lying down.

NUTRITION

Measures the degree to which one chooses foods that are consistent with the dietary goals of the United States as published by the Senate Select Committee on Nutrition and Human Needs

11. When choosing non-vegetable protein, I select lean cuts of meat, poultry, fish, and low-fat dairy products.
12. I maintain an appropriate weight for my height and frame.
13. I minimize salt intake.
14. I eat fruits and vegetables, fresh and uncooked.
15. I eat breakfast.
16. I intentionally include fiber in my diet on a daily basis.
17. I drink enough fluid to keep my urine light yellow.
18. I plan my diet to insure an adequate amount of vitamins and minerals.
19. I minimize foods in my diet that contain large amounts of refined flour (bleached white flour, typical store bread, cakes, etc.).
20. I minimize my intake of fats and oils including margarine and animal fats.

21. I include items from all four basic food groups in my diet each day (fruits and vegetables; milk group; breads and cereals; meat, fowl, fish or vegetable proteins).
22. To avoid unnecessary calories, I choose water as one of the beverages I drink.
23. I avoid adding sugar to my foods. I minimize my intake of pre-sweetened foods (sugarcoated cereals, syrups, chocolate milk, and most processed and fast foods).

SELF-CARE

Measures the behaviors which help one prevent or detect early illnesses.

24. I use footwear of good quality designed for the activity or the job in which I participate.
25. I record immunizations to maintain up-to-date immunization records.
26. I examine my breasts or testes on a monthly basis.
27. I have my breasts or testes examined yearly by a physician.
28. I balance the type and amount of food I eat with exercise to maintain a healthy percent body fat.
29. I take action to minimize my exposure to tobacco smoke.
30. When I experience illness or injury, I take necessary steps to correct the problem.
31. I engage in activities which keep my blood pressure in a range which minimizes my chances of disease (e.g., stroke, heart attack, and kidney disease).
32. I brush my teeth after eating.
33. I floss my teeth after eating.
34. My resting pulse is 60 or less.
35. I get an adequate amount of sleep.
36. If I were to have sex, I would take action to prevent unplanned pregnancy.
37. If I were to have sex, I would take action to prevent giving and/or getting sexually transmitted disease.

VEHICLE SAFETY

Measures one's ability to minimize chances of injury or death in a vehicle accident.

38. I do not operate vehicles while I am under the influence of alcohol or other drugs.
39. I do not ride with drivers who are under the influence of alcohol or other drugs.
40. I stay within the speed limit.
41. I practice defensive driving techniques.
42. When traffic lights change from green to yellow, I prepare to stop.
43. I maintain a safe driving distance between cars based on speed and road conditions.
44. Vehicles which I drive are maintained to assure safety.
45. Because they are safer, I use radial tires on cars that I drive.
46. When I ride a bicycle or motorcycle, I wear a helmet and have adequate lights/reflectors.
47. Children riding in my car are secured in an approved car seat or seat belt.
48. I use my seat belt while driving or riding in a vehicle.

DRUG USAGE AND AWARENESS

Measures the degree to which one functions without the unnecessary use of chemicals.

49. I use prescription drugs and over-the-counter medications only when necessary.
50. If I consume alcohol, I limit my consumption to not more than one drink per hour and no more than two drinks per day.
51. I avoid the use of tobacco.
52. Because of the potentially harmful effects of caffeine (e.g., coffee, tea, cola, etc.), I limit my consumption.
53. I avoid the use of marijuana.
54. I avoid the use of hallucinogens (LSD, PCP, MDA, etc.).
55. I avoid the use of stimulants ("uppers"—e.g., cocaine, amphetamines, "pep pills," etc.).
56. I avoid the use of nonmedically prescribed depressants ("downers"—e.g., barbituates, quaaludes, minor tranquilizers, etc.).
57. I avoid using a combination of drugs unless under medical supervision.
58. I follow the instructions provided with any drug I take.
59. I avoid using drugs obtained from illegal sources.
60. I understand the expected effect of drugs I take.
61. I consider alternatives to drugs.
62. If I experience discomfort from stress or tension, I use relaxation techniques, exercise, and meditation instead of taking drugs.
63. I get clear directions for taking my medicine from my doctor or pharmacist.

SOCIAL/ENVIRONMENTAL

Measures the degree to which one contributes to the common welfare of the community. This emphasizes interdependence with others and nature.

64. I conserve energy at home.
65. I consider energy conservation when choosing a mode of transportation.
66. My social ties with family are strong.
67. I contribute to the feeling of acceptance within my family.
68. I develop and maintain strong friendships.
69. I do my part to promote a clean environment (i.e., air, water, noise, etc.).
70. When I see a safety hazard, I take action (warn others or correct the problem).
71. I avoid unnecessary radiation.
72. I report criminal acts I observe.
73. I contribute time and/or money to community projects.
74. I actively seek to become acquainted with individuals in my community.
75. I use my creativity in constructive ways.
76. My behavior reflects fairness and justice.
77. When possible, I choose an environment which is free of noise pollution.
78. When possible, I choose an environment which is free of air pollution.
79. I participate in volunteer activities benefiting others.
80. I help others in need.
81. I beautify those parts of my environment under my control.

- 82. Because of limited resources, I do my part to conserve.
- 83. I recycle aluminum, glass, and paper products.
- 84. I involve myself with people who support a positive lifestyle.

EMOTIONAL AWARENESS AND ACCEPTANCE

Measures the degree to which one has an awareness and acceptance of one's feelings. This includes the degree to which one feels positive and enthusiastic about oneself and life.

- 85. I have a good sense of humor.
- 86. I feel positive about myself.
- 87. I feel there is a satisfying amount of excitement in my life.
- 88. My emotional life is stable.
- 89. I am aware of my needs.
- 90. I trust and value my own judgment.
- 91. When I make mistakes, I learn from them.
- 92. I feel comfortable when complimented for jobs well done.
- 93. It is okay for me to cry.
- 94. I have feelings of sensitivity for others.
- 95. I feel enthusiastic about life.
- 96. I find it easy to laugh.
- 97. I am able to give love.
- 98. I am able to receive love.
- 99. I enjoy my life.
- 100. I have plenty of energy.
- 101. My sleep is restful.
- 102. I trust others.
- 103. I feel others trust me.
- 104. I accept my sexual desires.
- 105. I understand how I create my feelings.
- 106. At times, I can be both strong and sensitive.
- 107. I am aware when I feel angry.
- 108. I accept my anger.
- 109. I am aware when I feel sad.
- 110. I accept my sadness.
- 111. I am aware when I feel happy.
- 112. I accept my happiness.
- 113. I am aware when I feel frightened.
- 114. I accept my feelings of fear.
- 115. I am aware of my feelings about death.
- 116. I accept my feelings about death.

EMOTIONAL MANAGEMENT

Measures the degree to which one controls and expresses feelings, and engages in effective, related behaviors.

- 117. I share my feelings with those with whom I am close.
- 118. I express my feelings of anger in appropriate ways.
- 119. I express my feelings of sadness in healthy ways.
- 120. I express my feelings of happiness in desirable ways.
- 121. I express my feelings of fear in appropriate ways.
- 122. I compliment myself for a job well done.
- 123. I accept constructive criticism without reacting defensively.
- 124. I set appropriate limits for myself.

- 125. I stay within the limits that I have set.
- 126. I recognize that I can have wide variations of feelings about the same person (such as loving someone even though you are angry with her/him at the moment).
- 127. I am able to develop close, intimate relationships.
- 128. I say "no" without feeling guilty.
- 129. I would feel comfortable seeking professional help to better understand and cope with my feelings.
- 130. I reduce feelings of failure by setting achievable goals.
- 131. I relax my body and mind without using drugs.
- 132. I can be alone without feeling lonely.
- 133. I am able to be spontaneous in expressing my feelings.
- 134. I accept responsibility for my actions.
- 135. I am willing to take the risks that come with making change.
- 136. I manage my feelings to avoid unnecessary suffering.
- 137. I make decisions with a minimum of stress and worry.
- 138. I accept the responsibility for creating my own feelings.
- 139. I can express my feelings about death.
- 140. I recognize grieving as a healthy response to loss.

INTELLECTUAL

Measures the degree to which one engages her/his mind in creative, stimulating mental activities, expanding knowledge, and improving skills.

- 141. I read a newspaper daily.
- 142. I read twelve or more books yearly.
- 143. On the average, I read one or more national magazines per week.
- 144. When I watch TV, I choose programs with informational/educational value.
- 145. I visit a museum or art show at least three times yearly.
- 146. I attend lectures, workshops, and demonstrations at least three times yearly.
- 147. I regularly use some of my time participating in hobbies such as photography, gardening, woodworking, sewing, painting, baking, art, music, writing, pottery, etc.
- 148. I read about local, state, national, and international political/public issues.
- 149. I learn the meaning of new words.
- 150. I engage in some type of writing activity such as a regular journal, letter writing, preparation of papers or manuscripts, etc.
- 151. I am interested in understanding the views of others.
- 152. I share ideas, concepts, thoughts, or procedures with others.
- 153. I gather information to enable me to make decisions.
- 154. I listen to radio and/or TV news.
- 155. I think about ideas different than my own.

OCCUPATIONAL

Measures the satisfaction gained from one's work and the degree to which one is enriched by that work. Please answer these items from your primary frame of reference, (e.g., your job, student, homemaker, etc.).

- 156. I enjoy my work.

157. My work contributes to my personal needs.
158. I feel that my job in some way contributes to my well-being.
159. I cooperate with others in my work.
160. I take advantage of opportunities to learn new work-related skills.
161. My work is challenging.
162. I feel my job responsibilities are consistent with my values.
163. I find satisfaction from the work I do.
164. I find healthy ways of reducing excessive job-related stress.
165. I use recommended health and safety precautions.
166. I make recommendations for improving worksite health and safety.
167. I am satisfied with the degree of freedom I have in my job to exercise independent judgments.
168. I am satisfied with the amount of variety in my work.
169. I believe I am competent in my job.
170. My co-workers and supervisors respect me as a competent individual.
171. My communication with others in my work place is enriching for me.

SPIRITUAL

Measures one's ongoing involvement in seeking meaning and purpose in human existence. It includes an appreciation for the depth and expanse of life and natural forces that exist in the universe.

172. I feel good about my spiritual life.
173. Prayer, meditation, and/or quiet personal reflection is/are important part(s) of my life.
174. I contemplate my purpose in life.
175. I reflect on the meaning of events in my life.
176. My values guide my daily life.
177. My values and beliefs help me to meet daily challenges.
178. I recognize that my spiritual growth is a lifelong process.
179. I am concerned about humanitarian issues.
180. I enjoy participating in discussions about spiritual values.
181. I feel a sense of compassion for others in need.
182. I seek spiritual knowledge.
183. My spiritual awareness occurs other than at times of crisis.
184. I believe in something greater or that I am part of something greater than myself.
185. I share my spiritual values.

Section 3: HEALTH RISK APPRAISAL

INSTRUCTIONS:

This section is intended to help you identify the problems most likely to interfere with the quality of your life. It will also show you choices you can make to stay healthy and avoid the most common causes of death for a person your age and sex.

This Health Risk Appraisal is not a substitute for a checkup or physical exam that you get from a doctor or nurse. It only gives you some ideas for lowering your risk of getting sick or injured in the future. It is NOT designed for people who already have HEART DISEASE, CANCER, KIDNEY DISEASE, OR OTHER SERIOUS CONDITIONS. If you have any of these problems and you want a Health Risk Appraisal anyway, ask your doctor or nurse to read this section of the printout with you.

If you don't know or are unsure of an answer, please leave that item blank.

1. Have you ever been told that you have diabetes (or sugar diabetes)?
 - a. yes
 - b. no
2. Does your natural mother, father, sister or brother have diabetes?
 - a. yes
 - b. no
 - c. not sure
3. Did either of your natural parents die of a heart attack before age 60? (If your parents are younger than 60, mark no).
 - a. yes, one of them
 - b. yes, both of them
 - c. no
 - d. not sure
4. Are you now taking medicine for high blood pressure?
 - a. yes
 - b. no
5. What is your blood pressure now?
 - a. _____ systolic (high number)
 - b. _____ diastolic (low number)
6. If you *do not* know the number, select the answer that describes your blood pressure.
 - a. high
 - b. normal or low
 - c. don't know
7. What is your TOTAL cholesterol level (based on a blood test)? _____ (mg/dl)
8. What is your High Density Lipoprotein (HDL) cholesterol level (based on a blood test)? _____ (mg/dl)
9. How many cigars do you usually smoke per day? _____
10. How many pipes of tobacco do you usually smoke per day? _____
11. How many times per day do you usually use smokeless tobacco (chewing tobacco, snuff, pouches, etc.)? _____
12. How would you describe your cigarette smoking habits?
 - a. never smoked Go to 15
 - b. used to smoke Go to 14
 - c. still smoke Go to 13

13. How many cigarettes a day do you smoke?
 _____ cigarettes per day Go to 15
14. a. How many years has it been since you smoked cigarettes regularly?
 _____ years
- b. What was the average number of cigarettes per day that you smoked in the 2 years before you quit?
 _____ cigarettes per day
15. In the next 12 months, how many thousands of miles will you probably travel by each of the following?
 (NOTE: U.S. average = 10,000 miles)
- a. car, truck, or van: _____,000 miles
- b. motorcycle: _____,000 miles
16. On a typical day how do you USUALLY travel?
 (Check one only)
- a. walk
- b. bicycle
- c. motorcycle
- d. sub-compact or compact car
- e. mid-size or full-size car
- f. truck or van
- g. bus, subway, or train
- h. mostly stay home
17. What percent of the time do you usually buckle your safety belt when driving or riding?
 _____%
18. On the average, how close to the speed limit do you usually drive?
- a. within 5 mph of limit
- b. 6-10 mph over limit
- c. 11-15 mph over limit
- d. more than 15 mph over limit
19. How many times in the last month did you drive or ride when the driver had perhaps too much alcohol to drink?
 _____ times last month
20. When you drink alcoholic beverages, how many drinks do you consume in an average day? (If you never drink alcoholic beverages, write 0.)
 _____ alcoholic beverages/average day
21. On the average, how many days per week do you consume alcohol?
 _____ days/week

(MEN GO TO QUESTION 31)

WOMEN ONLY (QUESTIONS 22-30)

22. At what age did you have your first menstrual period?
 _____ years old
23. How old were you when your first child was born? (If no children, write 0.)
 _____ years old
24. How long has it been since your last breast x-ray (mammogram)?
- a. less than 1 year ago
- b. 1 year ago
- c. 2 years ago
- d. 3 or more years ago
- e. never
25. How many women in your natural family (mother and sisters only) have had breast cancer?
 _____ women

26. Have you had a hysterectomy?

- a. yes
- b. no
- c. not sure

27. How long has it been since you had a pap smear test?

- a. less than 1 year ago
- b. 1 year ago
- c. 2 years ago
- d. 3 or more years ago
- e. never

28. How often do you examine your breasts for lumps?

- a. monthly
- b. once every few months
- c. rarely or never

29. About how long has it been since you had your breasts examined by a physician or nurse?

- a. less than 1 year ago
- b. 1 year ago
- c. 2 years ago
- d. 3 or more years ago
- e. never

30. About how long has it been since you had a rectal exam?

- a. less than 1 year ago
- b. 1 year ago
- c. 2 years ago
- d. 3 or more years ago
- e. never

WOMEN GO TO QUESTION 35

MEN ONLY (QUESTIONS 31-34)

31. About how long has it been since you had a rectal or prostate exam?

- a. less than 1 year ago
- b. 1 year ago
- c. 2 years ago
- d. 3 or more years ago
- e. never

32. Do you know how to properly examine your testes for lumps?

- a. yes
- b. no
- c. not sure

33. How often do you examine your testes for lumps?

- a. monthly
- b. once every few months
- c. rarely or never

34. About how long has it been since you had your testes examined by a physician or nurse?

- a. less than one year ago
- b. 1 year ago
- c. 2 years ago
- d. 3 or more years ago
- e. never

35. How many times in the last year did you witness or become involved in a violent fight or attack where there was a good chance of a serious injury to someone?

- a. 4 or more times
- b. 2 or 3 times
- c. 1 time or never
- d. not sure

36. Considering your age, how would you describe your overall physical health?
 - a. excellent
 - b. good
 - c. fair
 - d. poor
37. In an average week, how many times do you engage in physical activity (exercise or work which lasts at least 20 minutes without stopping and which is hard enough to make you breathe heavier and your heart beat faster)?
 - a. less than 1 time per week
 - b. 1 or 2 times per week
 - c. at least 3 times per week
38. If you ride a motorcycle or all-terrain vehicle (ATV), what percent of the time do you wear a helmet?
 - a. 75% to 100%
 - b. 25% to 74%
 - c. less than 25%
 - d. does not apply to me
39. Do you eat some food every day that is high in fiber, such as whole grain bread, cereal, fresh fruits, or vegetables?
 - a. yes
 - b. no
40. Do you eat foods every day that are high in cholesterol or fat, such as fatty meat, cheese, fried foods, or eggs?
 - a. yes
 - b. no
41. In general, how satisfied are you with your life?
 - a. mostly satisfied
 - b. partly satisfied
 - c. not satisfied
42. Have you suffered a personal loss or misfortune in the past year that had a serious impact on your life? (For example, a job loss, disability, separation, jail term, or the death of someone close to you.)
 - a. yes, 1 serious loss or misfortune
 - b. yes, 2 or more
 - c. no

Section 4: TOPICS FOR PERSONAL GROWTH

This section will help you identify areas in which you would like more information. In response to your selection from the following topics, we will provide you with resources or services to meet your requests.

Select topics on which you would like information. (Maximum of 4 topics.)

- | | |
|---|---|
| 1. Responsible alcohol use | 20. Spiritual or philosophical values |
| 2. Stop-smoking programs | 21. Communication skills |
| 3. Sexuality | 22. Automobile safety |
| 4. Gay issues | 23. Suicide thoughts or attempts |
| 5. Depression | 24. Substance abuse |
| 6. Loneliness | 25. Anxiety associated with public speaking, tests, writing, etc. |
| 7. Exercise programs | 26. Enhancing relationships |
| 8. Weight reduction | 27. Time-management skills |
| 9. Self-breast exam | 28. Death and dying |
| 10. Medical emergencies | 29. Learning skills (i.e., speed-reading, comprehension, etc.) |
| 11. Nutrition | 30. Financial management |
| 12. Relaxation | 31. Divorce |
| 13. Stress reduction | 32. Alcoholism |
| 14. Parenting skills | 33. Men's issues |
| 15. Marital or couples problems | 34. Women's issues |
| 16. Assertiveness training (how to say "no" without feeling guilty) | 35. Medical self-care |
| 17. Biofeedback for tension headache and pain | 36. Dental self-care |
| 18. Overcoming fears (i.e., high places, crowded rooms, etc.) | 37. Self-testes exam |
| 19. Educational career goal setting/planning | 38. Aging |
| | 39. Self-esteem |
| | 40. Premenstrual syndrome (PMS) |
| | 41. Osteoporosis |
| | 42. Recreation and leisure |
| | 43. Environmental issues |

IMPORTANT— If you have finished completing all sections of the LAQ, please make sure you have answered the questions in Section 1 requesting your sex, race, age, height and weight. Results cannot be generated for the Health Risk Appraisal section without this information.

Appendix B

REQUEST FOR PERMISSION TO USE INSTRUMENT

Ms Linda Chapin, Executive Director National Wellness Institute, Inc.

P O Box 827, Stevens Point, Wisconsin USA 54481-0827

Phone (715) 342-2969 Fax (715) 342-2979.

Further to our telephone conversation, I request permission to:- use the LAQ (1989)

Questionnaire as the instrument for my Master of Nursing Study entitled Health

Educational Needs of Middle Aged Men. This will be undertaken in Perth Western

Australia. I have discussed with Rochelle the necessity to change the terminology of the

demographic section so that it reflects Australian circumstances. Rochelle has indicated

that no other part of the questionnaire is to be changed. I provide documentation which

confirms that I am currently enrolled as a full time student at Edith Cowan University. I

agree to purchase the software and questionnaires. In addition, a copy of the completed

thesis will be provided to the National Wellness Institute, Stevens Point Wisconsin, at my

expense, on completion of the study.

Thank you for your assistance

Beth Hall.

Appendix C**LICENSE TO USE NATIONAL WELLNESS INSTITUTE INC. SOFTWARE**



Important Information **PLEASE READ**

Dear Lifestyle Assessment Questionnaire® Owner:

Enclosed is Version 5.5 of the Lifestyle Assessment Questionnaire (LAQ). In order to be eligible for reduced prices on future program updates, you must return your signed Software License Agreement to the National Wellness Institute.


Please sign BOTH copies of the LAQ Version 5.5 Software License Agreement immediately, and return to the National Wellness Institute. An authorized representative will sign both copies of your Software License Agreement and return one copy to you. The other copy will be kept on file at the National Wellness Institute office.

Return Software License Agreement to:

ATTN: LAQ Software License Agreement
National Wellness Institute, Inc.
1045 Clark Street Suite 210
Stevens Point, WI 54481

If you have any questions, please feel free to contact me.

Healthfully yours,


Linda R. Chapin, D.D.S., M.P.S.
Executive Director
National Wellness Institute, Inc.

Appendix D

SAMPLE OF INDIVIDUALISED LAQ REPORT

Introducing You to the Lifestyle Assessment Questionnaire

Thank you for participating in the Lifestyle Assessment Questionnaire (LAQ) program. The results of your Lifestyle Assessment Questionnaire are contained in this packet. Your results include an analysis of your lifestyle, divided into three parts, and a guide on strategies for behavioral change. Each segment provides you with valuable information.

The **Wellness Inventory** section provides you with a snapshot of your current lifestyle. This snapshot describes your level of wellness within each of the six dimensions of wellness and their sub-categories.

The **Health Risk Appraisal** section evaluates the potential effects of your present lifestyle on your risk of dying in the next ten years from specific causes. This section also suggests ways you can reduce the risk of dying from these causes.

The **Topics for Personal Growth** section provides you with resources for the topics you requested.

In the event that the analysis of your LAQ has stimulated an interest in making some lifestyle changes, "Making Wellness Work For You" will assist you with a pleasant and successful plan for change. Not only will this study guide help you to develop and implement a plan, but it will also assist you in determining what behavior to start with and whether you are ready to change that behavior.

Interpreting Your Results

Before you begin reviewing your report, please make sure that the data in the box labeled "Vital Information" (on page one of the report) is correct. If it is not correct, please call our office immediately at 715-342-2969.

If you left the questions blank for systolic and diastolic blood pressure, cholesterol, and HDL on the Health Risk Appraisal, your scores for your risk of dying from heart disease, stroke, and diabetes will automatically be increased. The National Wellness Institute encourages everyone to have his/her blood cholesterol level and blood pressure checked annually by a physician.

If you have any questions after reviewing your results, you may wish to discuss your results with the person responsible for administering the LAQ to you, or your personal physician. You are also welcome to contact the National Wellness Institute at 715-342-2969. Our hours are 8:00 a.m.-5:00 p.m., CST, Monday - Friday.

Please make sure that the vital information below is accurate (age, race, sex, height, and weight). Any errors in this information can invalidate the results of your LAQ.

VITAL INFORMATION

Age: 44
Race: White
Sex: Male

Height: 5'11"
Weight: 155

If you have any questions about the accuracy of the printout information, we recommend that you discuss them with the person responsible for administering the LAQ to you. If you find any of the above information incorrect, contact us with the correct information and we will rescore your LAQ for you.

WELLNESS INVENTORY SECTION,

1. Six Dimensions of Wellness

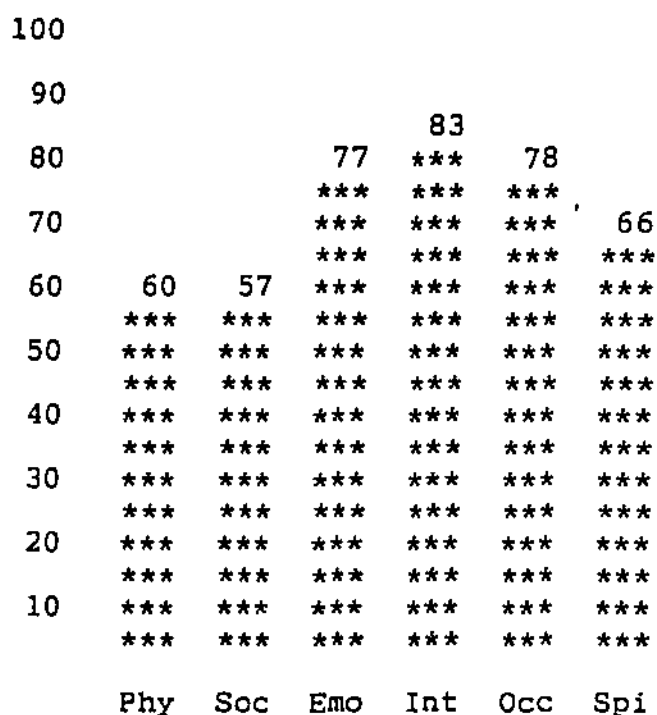
The National Wellness Institute, Inc. has adopted a wellness model which incorporates six dimensions. These dimensions are: Physical, Social, Emotional, Intellectual, Occupational, and Spiritual. We have provided a definition of each dimension in your LAQ Results Interpretation Guide.

This six-dimensional model emphasizes the importance of creating a balance in the many different areas which make up your daily life. Each of these dimensions are interrelated. High scores in any one dimension may impact positively in the other dimensions. Low scores may impact negatively.

Understanding Your Six Dimensions of Wellness Scores

This section was designed to help you assess your current level of wellness within each of the six dimensions of wellness. The graph shown below represents your score in each dimension. The scores for each dimension range from 0 to 100. Your score is the percent of possible points for each area. The higher your score, the higher your level of wellness for that dimension

Six Dimensions of Wellness



2. Wellness Subcategories

The Physical and Emotional dimensions of wellness have been divided into subcategories. The subcategories for the Physical dimension are Exercise, Nutrition, Self-Care, Vehicle Safety, and Drug Usage. The subcategories for the Emotional dimension are Emotional Awareness & Acceptance, and Emotional Management.

Understanding Your Wellness Subcategories Scores

The first bar in the graph below represents your score in each of the various wellness dimensions and subcategories. Your score is the percent of possible points for each area. The range for each score is 0 to 100. The second bar graph represents the average score for the group with whom you took the LAQ. The third bar graph is the average score of other people in your age and sex group in the LAQ database.

The higher your score, the higher your level of wellness for that particular wellness dimension or subcategory.

Wellness Subcategories

EXERCISE

Your Score	* 3
Group Average	##### 46
Your Age/Sex Group Average	***** 52

NUTRITION

Your Score	***** 79
Group Average	##### 75
Your Age/Sex Group Average	***** 63

Wellness Subcategories (continued)

SELF-CARE

Your Score	***** 52
Group Average	##### 59
Your Age/Sex Group Average	***** 59

VEHICLE SAFETY

Your Score	***** 89
Group Average	##### 86
Your Age/Sex Group Average	***** 79

DRUG USAGE

Your Score	***** 78
Group Average	##### 89
Your Age/Sex Group Average	***** 86

SOCIAL/ENVIRONMENTAL

Your Score	***** 57
Group Average	##### 71
Your Age/Sex Group Average	***** 74

EMOTIONAL AWARENESS & ACCEPTANCE

Your Score	***** 83
Group Average	##### 82
Your Age/Sex Group Average	***** 79

EMOTIONAL MANAGEMENT

Your Score	***** 72
Group Average	##### 74
Your Age/Sex Group Average	***** 72

Wellness Subcategories (continued)

INTELLECTUAL

Your Score	***** 83
Group Average	##### 70
Your Age/Sex Group Average	***** 66

OCCUPATIONAL

Your Score	***** 78
Group Average	##### 78
Your Age/Sex Group Average	***** 78

SPIRITUAL

Your Score	***** 66
Group Average	##### 58
Your Age/Sex Group Average	***** 68

COMPOSITE SCORE

Your Score	***** 70
Group Average	##### 73
Your Age/Sex Group Average	***** 72

Wellness Inventory Summary

Congratulations, you have demonstrated a high level of wellness in the following areas:

Vehicle Safety
Intellectual
Emotional Awareness and Acceptance

Build on the great start you have made in your personal wellness by making positive lifestyle changes in the following areas

Nutrition
Drug Usage and Awareness
Occupational
Emotional Management
Spiritual
Social/Environmental
Self-care

Your current LAQ assessment indicates that the following area may need the most attention at the present time:

Exercise

IMPROVING YOUR WELLNESS LEVELS

If you choose to improve your lifestyle in any of the wellness areas, a good way to start is to look over your answers for the category in which you want to improve. You may want to change your lifestyle habits until you can answer either an "A" or a "B" to all of the questions in the category.

To assist you in learning how to make positive lifestyle changes, we have provided you with the "Making Wellness Work for You" section of this printout. It offers an easy-to-follow plan you can use to improve your personal wellness.

HEALTH RISK APPRAISAL SECTION

Your Actual Age vs. Your Appraised Health Age

Although your present age is 44, your appraised health age is 46. This means that based upon the Lifestyle Assessment Questionnaire you have filled out, your estimated risk of dying within the next 10 years is the same as if you were the average 46 year old male.

Achievable Health Age

If you follow all the suggestions we have given you for improving your present lifestyle, you can reduce your health age to 41.

POSITIVE AREAS OF YOUR LIFESTYLE

- * Good blood pressure
- * Weight near desirable range
- * Good seat belt usage
- * Good physical activity level
- * Eating high fiber foods
- * Low violence risk
- * Regular rectal&prostate exam

The graphs below show how your group's risk compares to that of the average 44 year old male.

Listing of Your Group's Top Ten Risks of Death

Risk of Death	Chances per 100,000 Deaths From This Cause During the Next 10 Years
---------------	---

1. Heart Attack

Your Group *****	1,384
Average #####	1,240

The risk of dying from Heart Attack of a group of people like you is 12% above average. You can reduce your risk if you:

- * Quit smoking (get help if needed)!
- * Maintain a balanced diet which contains lean meats, poultry and fish, grains, fruits and vegetables.
- * Maintain healthy eating patterns which consist of foods low in salt and fat.

2. Lung Cancer

Your Group *****	983
Average #####	532

The risk of dying from Lung Cancer of a group of people like you is 85% above average. You can reduce your risk if you:

- * Quit smoking (get help if needed)!
- * Avoid inhaling toxic chemicals and pollutants, especially asbestos.
- * Eat foods rich in Vitamin A, such as carrots and dark green, leafy vegetables
- * If you drink, reduce the amount of alcohol consumed to no more than 1 - 2 drinks (1 - 2 oz. of alcohol) per day.

3. Esophageal Cancer

Your Group *****	268
Average #	54

The risk of dying from Esophageal Cancer of a group of people like you is 397% above average. You can reduce your risk if you:

- * Quit smoking (get help if needed)!
- * Eat foods rich in Vitamins A and C.
- * Reduce the amount of alcohol consumed to no more than 1 - 2 drinks (1 - 2 oz. of alcohol) per day.
- * Decrease the amount of smoked, salted and pickled foods consumed.

4. Suicide
Your Group ***** 216
Average ##### 216

The risk of dying from Suicide of a group of people like you is the same as average. You can reduce your risk if you:

- * Learn to recognize the symptoms of depression in yourself.
- * Develop a support network of people you feel comfortable talking with about personal issues.
- * Recognize when you may benefit by seeking professional help.
- * Seek professional care for help in overcoming thoughts of suicide.

5. Stroke
Your Group **** 187
Average ##### 188

The risk of dying from Stroke of a group of people like you is 0% below average. You can reduce your risk if you:

- * Quit smoking (get help if needed)!
- * Maintain healthy eating patterns which consist of foods low in salt and fat.
- * Maintain a balanced diet which contains lean meats, poultry and fish, grains, fruits and

vegetables.

- * Continue to have routine physical examinations -- early detection is the key.
- * Maintain a proper weight for your height, age, sex, and body frame size.

6. Motor Vehicle Injury

Your Group ****	180
Average ###	165

The risk of dying from Motor Vehicle Injury of a group of people like you is 9% above average. You can reduce your risk if you:

- * Drive at or below the speed limit.
- * Obey all the rules of the road.
- * Drive defensively.
- * Do not drive when tired.
- * Do not drive when under the influence of any drug.

7. HIV/AIDS

Your Group ****	172
Average ###	172

The risk of dying from HIV/AIDS of a group of people like you is the same as average. You can reduce your risk if you:

- * Practice safe sex.
- * Avoid IV drugs from unlicensed sources.
- * Consider HIV testing.

8. Other Injuries

Your Group ***	136
Average ###	136

The risk of dying from Other Injuries of a group of people like you is the same as average. You can reduce your risk if you:

- * Obey all occupational safety rules in the workplace.
- * Have an emergency kit and emergency phone numbers handy.

9. Homicide/Assault

Your Group ***	119
Average ###	119

The risk of dying from Homicide/Assault of a group of people like you is the same as average. You can reduce your risk if you:

- * Do not argue with people you don't know.
- * Do not go out alone in dangerous or unfamiliar area, especially at night.
- * Make sure your car is in good working order and has plenty of gas.
- * Avoid deserted streets, parking lots, parks, and shortcuts.
- * Never hitch-hike.
- * Seek help for persistent domestic conflict.

10. Liver Cirrhosis

Your Group ***	115
Average #####	255

The risk of dying from Liver Cirrhosis of a group of people like you is 55% below average. You can reduce your risk if you:

- * Maintain a balanced diet rich in fresh fruits and vegetables.

Life Expectancy Results

Expected years of life
remaining for a group of people like you ***** 27

Average years of
remaining life in your sex, age and race group ***** 29

Achievable years of life
remaining for your group with changes in present lifestyle ***** 32

The following suggestions will help you increase your expected years of remaining life

To improve your risk profile	Risk Years Gained
* Quit smoking	4.7 Years
* Drive at or below the speed limit	0.3 Years
TOTAL RISK YEARS YOU CAN GAIN	5.0 Years

Height and Weight

For Height 5'11" and a medium frame, the desirable weight range is from 147 pounds to 163 pounds. Your reported weight is 155 pounds.

Results Computed For: 370 4508
Record 70 of THESIS File

June 24, 1996
Page: 13

Missing Data

You reported that you did not know the following items. We recommend that you consult with your physician to determine how your actual values compare to the healthy ranges shown.

Missing Items	Healthy Range for Your Age Race and Sex Group
* Total Cholesterol Level	
* HDL Cholesterol	

*** HEALTH RISK APPRAISAL FORECAST ***

If you continue your present lifestyle over the next 15 years, the following is what your forecast would look like.

If your present age were 59, your appraised health age would be 61. This means that based upon the Lifestyle Assessment Questionnaire you have filled out, your estimated risk of dying within the next 10 years at age 59 is the same as if you were the average 61 year old male.

The graphs below show how your group's risk compares to that of the average 59 year old male.

Listing of Your Group's Top Ten Risks of Death

Risk of Death	Chances, per 100,000 Deaths From This Cause During the Next 10 Years	
	Your Group	Average
1. Heart Attack		
Your Group	*****	5,274
Average	#####	5,429
Risk is 3% below average.		
2. Lung Cancer		
Your Group	*****	5,139
Average	#####	2,671
Risk is 92% above average.		
3. Stroke		
Your Group	*****	1,159
Average	####	815
Risk is 42% above average.		

4. Emphysema/Chronic Bronchitis

Your Group *****	1,159
Average #####	885

Risk is 31% above average.

5. Esophageal Cancer

Your Group *****	1,143
Average #	216

Risk is 429% above average.

6. Colon Cancer

Your Group ***	550
Average ###	550

Risk is the same as average.

7. Pneumonia/Influenza

Your Group ***	465
Average ##	352

Risk is 32% above average.

8. Prostatic Cancer

Your Group ***	432
Average ###	432

Risk is the same as average.

9. Pancreatic Cancer

Your Group ***	424
Average ##	312

Risk is 36% above average.

10. Arterial Vascular Disease

Your Group **	370
Average ##	370

Risk is the same as average.

Life Expectancy Results

Expected years of life
remaining for a group ***** 15
of people like you

Average years of
remaining life in your ***** 17
sex, age and race group

Achievable years of life
remaining for your group ***** 20
with changes in present
lifestyle

PERSONAL GROWTH SECTION

The following resources have been helpful to individuals in learning more about the topics you selected.

2. STOP-SMOKING PROGRAMS

American Cancer Society
Public Information Department
777 Third Avenue
New York, NY 10017
800/ACS-2345
Pamphlet: Smart Move! A stop Smoking Guide

American Heart Association
7320 Greenville Avenue
Dallas, TX 75231
Pamphlet: Calling it Quits

American Lung Association
Public Information Department
777 Third Avenue
New York, NY 10017
800/242-5160
Pamphlets: Quitters Kit
Freedom From Smoking in Twenty Days
Freedom From Smoking for Your and Your Family

A Lifetime of Freedom From Smoking

BOOKS

The No-Nag, No-Guilt, Do-It-Your-Own-Way Guide to
Quitting Smoking
Tom Ferguson, M.D.
1988, Ballantine, New York, NY

Women Smokers Can Quit: A Different Approach
Sue Delaney, M.A.
1989, Women's Healthcare, Evanston, IL

3. SEXUALITY

Planned Parenthood Federation of America
810 7th Avenue
New York, NY 10019
212/541-7800 or 800/669-0156
(Catalog of pamphlets available.)

Sex Information and Education Council of the United States
130 W. 42nd Street, Suite 2500
New York, NY 10036
212/819-9770

BOOKS

The Hazards of Being Male: Surviving the Myth of
Masculine Privilege
Herb Goldberg, Ph.D.
1977, NAC-Dutton, New York, NY

The New Joy of Sex
Alex Comfort, Ph.D.
1991, Crown, New York, NY

The New Our Bodies, Ourselves
The Boston Women's Health Book Collective Staff
1985, Simon and Schuster, New York, NY

Out of the Shadows: Understanding Sexual Addiction
Patrick Carnes, Ph.D.
1985, CompCare, Minneapolis, MN

Why Men Are The Way They Are

Warren Farrell, Ph.D.
1988, Berkley Publishers, New York, NY

7. EXERCISE PROGRAMS

BOOKS

ACSM Fitness Book
American College of Sports Medicine
1992, Leisure Press, Champaign, IL

The Aerobics Program For Total Wellbeing
Kenneth Cooper, M.D.
1983, Bantam, New York, NY

The Complete Yoga Book
James Hewitt
1989, Shoken, New York, NY

Dynamics of Fitness: A Practical Approach,
George McGlynn
1990, W.C. Brown, Dubuque, IA

Exercise as You Grow Older
Naomi Lederach, Nona Kaufman and Beth Lederach
1986, Good Books, Intercourse, PA

The Exercise Habit
James Gavin, Ph.D.
1992, Leisure Press, Champaign, IL

Getting Stronger
Bill Pearle
1988, Random House, New York, NY

Living With Exercise
Steven N. Blair, P.E.D.
1991, American Health Publishing, Dallas, TX

The Stanford Health and Exercise Handbook
Stanford Alumni Association
1987, Leisure Press, Champaign, IL

Stretching
Bob Anderson
1980, Random House, New York, NY

8. WEIGHT REDUCTION

Weight Watchers International
500 North Broadway, Jericho Atrium
Jericho, NY 11753-2196
516/939-0400

BOOKS

Fat is a Feminist Issue: A Self-Help Guide for
Compulsive Eaters
Susan Orbach
1978, Berkley Books, New York, NY

Fat is a Feminist Issue II: A Program to Conquer
Compulsive Eating
Susan Orbach
1982, Berkley Books, New York, NY

Choose to Lose Diet: A Food Lover's Guide to Permanent
Weight Loss
Ronald S. Goor and Nancy Goor
1990, Houghton Mifflin, New York, NY

Making Peace With Food
Susan Kano
1989, Harper and Row, New York, NY

The New American Diet
Sonia L. Connor & William E. Connor
1989, Simon and Schuster, New York, NY

Overcoming Overeating
Jane R. Hirschmann and Carol H. Munter
1988, Ballantinen, New York, NY

14. PARENTING SKILLS

National Institute of Mental Health
U.S. Department of Health and Human Services
5600 Fishers Lane, Room 15C-05
Rockville, MD 20857
301/443-4513
Pamphlets: When Parents Divorce
Stimulating Baby Senses

Plain Talk About Adolescence
Importance of Play
Learning While Growing: Cognitive Development

Planned Parenthood Federation of America
810 7th Avenue
New York, NY 10019
212/541-7800 or 800/669-0156
(Catalog of pamphlets available.)

BOOKS

How to Talk So Kids Will Listen and Listen So Kids Will Talk
Adele Faber and Elaine Mazlish
1982, Avon, New York, NY

Love and Power, Parent and Child: How to Raise
Competent, Confident Children
Claudette Wassil-Grimm
1988, R.J. Erdmann, San Marcos, CA

Parenting for the '90s
Phillip Osborne
1989, Good Book, Intercourse, PA

Working Parents, Happy Child
Caryl Waller Krueger
1990, Abingdon Press, Nashville, TN

15. MARITAL OR COUPLES PROBLEMS

National Mental Health Association
1021 Prince Street
Alexandria, VA 22314-2971
703-684-7722

BOOKS

After the Honeymoon: Turning Conflict into Understanding
Daniel Wile
1988, Wiley, New York, NY

Creating a Good Relationship
William J. Lederer
1984, Norton, New York, NY

Dance of Intimacy
Harriet Lerner, Ph.D.
1991, Harper Collins, New York, NY

Do I Have To Give Up Me To Be Loved By You?
Paul Jordan and Margaret Paul
1983, Compcare, Minneapolis, MN

Getting the Love You Want: A Guide for Couples
Harville Hendrix, Ph.D.
1992, Harper Collins, New York, NY

The Intimate Enemy: How to Fight Fair in Love and Marriage
George Bach and Peter Wyden
1976, Avon, New York, NY

Loving Each Other
Leo F. Buscaglia
1986, Fawcett, New York, NY

The Secret of a Happy Family: How to Find Freedom,
Fulfillment and Love Together
1989, Doubleday, New York, NY

24. SUBSTANCE ABUSE

Nar-Anon
World Service Office
P.O. Box 2562
Paol Verdes, CA 90274
213/547-5800

Narcotic Anonymous
P.O. Box 9999
Van Nuys, CA 91409
818/780-3951

BOOKS

The Addiction Experience
Stanton Peele
1980, Hazelden, San Francisco, CA

Beyond Co-Dependency
Melody Beattie
1989, Harper, San Francisco, CA

Denial
Melody Beattie
1986, Hazelden, San Francisco, CA

The Language of Letting Go
Melody Beattie
1990, Harper, San Francisco, CA

Lost in the Shuffle: The Co-Dependent Reality
1987, Health Communication, Deefield Beach, FL

The Truth About Addiction and Recovery
Stanton Peele and Archie Brodsky
1991, Simon and Schuster, New York, NY

25. ANXIETY REDUCTION

Toastmasters International
P.O. Box 9052
Mission Viejo, CA 92690
714/858-8255

BOOKS

Always At Ease: Overcoming Anxiety and Shyness
in Every Situation
Christopher J. McCollough
1990, J.P. Tarcher, Los Angeles, CA

Anxiety and its Treatment
John Griest
1987, Warner Books, New York, NY

How to Study in College
Walter Pauk
1988, Houghton Mifflin, Boston, MA

Panic: Facing Fears, Phobias and Anxiety
Stewart Agras
1985, W.H. Freeman, New York, NY

Quick and Easy Way to Effective Speaking
Dale Carnegie
1981, Pocket Books, New York, NY

42. RECREATION AND LEISURE

Leisure Resources

Joseph Bannon

1985, Management Learning Laboratories, Champaign, IL

BOOKS

The Overworked American: The Unexpected Decline of Leisure

Juliet B. Schor

1991, Basic Books, New York, NY

Waiting for the Weekend

Witold Rybczynski

1991, Viking Penguin, New York, NY

What to do After You Turn Off the TV

Frances M. Lappe

1985, Ballantine, New York, NY

Section 1 - PERSONAL DATA

1. A	7. A
2. A	8. D
3. 44	9. D
4. 5'11"	10. B
5. 155	11. B
6. B	12. E

Section 2 - LIFESTYLE

1. E	32. B	63. A	94. A	125. D	156. C
2. E	33. E	64. B	95. B	126. A	157. A
3. E	34. A	65. E	96. B	127. B	158. A
4. D	35. A	66. D	97. A	128. B	159. A
5. E	36. A	67. A	98. C	129. B	160. A
6. E	37. A	68. B	99. C	130. B	161. C
7. E	38. A	69. C	100. C	131. B	162. B
8. E	39. A	70. A	101. B	132. A	163. C
9. E	40. C	71. C	102. B	133. B	164. C
10. E	41. B	72. B	103. A	134. A	165. B
11. B	42. B	73. B	104. A	135. A	166. A
12. A	43. B	74. B	105. B	136. B	167. B
13. A	44. A	75. A	106. A	137. A	168. B
14. B	45. A	76. B	107. A	138. C	169. A
15. C	46. A	77. C	108. A	139. C	170. A
16. C	47. A	78. C	109. A	140. A	171. C
17. A	48. A	79. D	110. A	141. A	172. B
18. A	49. A	80. C	111. A	142. A	173. D
19. C	50. B	81. C	112. A	143. A	174. D
20. C	51. E	82. D	113. A	144. C	175. C
21. A	52. D	83. E	114. A	145. A	176. B
22. B	53. A	84. B	115. C	146. A	177. A
23. A	54. A	85. B	116. C	147. E	178. A
24. A	55. A	86. A	117. B	148. A	179. A
25. E	56. A	87. D	118. B	149. B	180. C
26. E	57. A	88. A	119. C	150. A	181. A
27. E	58. B	89. B	120. A	151. B	182. C
28. C	59. A	90. A	121. B	152. B	183. C
29. E	60. B	91. B	122. C	153. B	184. A
30. C	61. B	92. B	123. C	154. A	185. D
31. C	62. C	93. A	124. E	155. A	

The National Wellness Institute presents.



Making Wellness Work for You

Do you want to know how you can increase your level of wellness?

If you answered "yes" to this question, a plan is outlined below that you can use to increase your level of well-being and potentially reduce your risk of premature death.

STEP 1: Choose a behavior you would like to change.

Target Behavior: _____

STEP 2: Take the Target Behavior Test.

TARGET BEHAVIOR TEST		
	Yes	No
1. I really want to change this behavior.	<input type="checkbox"/>	<input type="checkbox"/>
2. I am likely to be healthier by changing this behavior.	<input type="checkbox"/>	<input type="checkbox"/>
3. If necessary, I am willing to spend some money as part of changing this behavior.	<input type="checkbox"/>	<input type="checkbox"/>
4. I am willing to devote the necessary time to changing this behavior.	<input type="checkbox"/>	<input type="checkbox"/>
5. I have chosen a target behavior that I am able to count or measure.	<input type="checkbox"/>	<input type="checkbox"/>
6. I have selected a goal which I can achieve. (e.g., "I will lose one pound per week by eliminating all between-meal snacks and walking one mile per day" is probably a realistic goal. "I will lose twenty pounds this month" is probably too large of a goal and may be unsafe.)	<input type="checkbox"/>	<input type="checkbox"/>

If you answered "no" to any of these questions, this behavior may not be the best place to start. You may want to choose another behavior which appeals to you and allows you to answer "yes" to all the questions on the Target Behavior Test. When you're ready, go on to the next step.

STEP 3: Create a place to begin.

To measure your success, you will want to know where you started. You can measure your starting point by recording a current behavior which you plan to change. You may create a measure of this starting point by writing down answers to questions like: How much? How little? How often? How long? Where and in what situations does it occur? The following chart will assist you.

BEHAVIOR MEASUREMENT

Name: _____ Date: _____

Target Behavior: _____

	WHERE	HOW OFTEN OR HOW MUCH	WHEN			BEHAVIOR DESCRIPTION What I did & with whom
			Start	Stop	Date	
Day 1						
Day 2						
Day 3						
Day 4						
Day 5						
Day 6						
Day 7						

BEHAVIOR TOTAL

TIME TOTAL

STEP 4: Design your surroundings to make changes easier.

Create a work and/or home space where it is harder to use the old negative pattern.

Examples:

- A. If you want to stop smoking and you usually smoke and talk on the phone, both at home and at work, don't have cigarettes, matches, or an ashtray anywhere near the telephone or in the room.
- B. If you are losing weight and often snack and watch television, write letters, or read a book rather than watch television. Remember, don't bring snacks into the room, house, or office.
- C. Put a quotation or picture which pleases and/or motivates you in a place where you will often see it.

STEP 5: Reward yourself when you act in the wellness way.

Pick a reward which is positive and which you enjoy. You may list your own in the first blanks or pick from the list of suggested rewards.

My rewards or what I like or want:

- 1) _____
- 2) _____
- 3) _____

HINT: Use only one reward each time and use the largest reward for the biggest accomplishment.

SUGGESTED REWARDS:

1. Time with friends.
2. Go to a movie or concert.
3. Buy a new piece of clothing.
4. Enjoy a special food or beverage.
5. Tell yourself how well you are doing.
6. Take a walk or bicycle ride.

MORE HINTS ABOUT REWARDS:

1. Do not demand too much work or success for too little reward.
2. Reward yourself as quickly as possible when you are successful.
3. Change your rewards as necessary.
4. After you are doing well, don't reward yourself as often.

STEP 6: Get help from friends and family.

Use the Contract for Behavior Change or ask for their help.

CONTRACT FOR BEHAVIOR CHANGE					
I, _____, have pledged to meet the following goal(s).					
1) _____					
2) _____					
3) _____					
The goal I will begin with is _____.					
The friends of _____ who have signed below					
have agreed to provide the following: (Please write them down.)					

We will meet on _____, to discuss progress and provide support.					
Month Day Year					
Signed:					

Signature	Date	Signature	Date	Signature	Date

STEP 7: Measure and record your progress.

	Week 1	Week 2	Week 3	Week 4
Behavior Total:				
Time Total:				
What I Learned From Behavior Descriptions:				

FINAL HELPFUL HINTS:

1. Don't criticize yourself; don't expect perfection.
2. Focus on the positive. Develop an optimistic attitude.
3. Learn by watching others who are doing a good job with the behaviors you are changing.
4. Don't stop if the goal is not accomplished quickly. Practice! Practice! Practice!
5. If you have doubts or it seems much too hard, consult with knowledgeable others and/or a professional counselor.

Appendix E

LETTER OF INVITATION FROM HUMAN RESOURCE MANAGERS

Name of organisation

Memorandum:

Division of Human Resource Management

File Ref:

TO: (Staff member's name)

From: Director, Division of Human Resource Management

Subject: **Survey: Health Educational Needs of Middle Aged Men.**

Date:

You are invited to complete the attached questionnaire as part of a master of nursing thesis entitled "Health Educational Needs of Middle Age Men." (Aged between 40 - 60 years inclusive).

The survey is to assist Ms Beth Hall who is completing her Master of Nursing Degree by research at Edith Cowan University.

The Life Style Assessment questionnaire is designed to assist individuals to discover how choices made on a daily basis affect overall health. The result of this survey will be confidential and will not be disclosed without your written consent.

At the completion of this survey Ms Hall will produce your individual life style assessment report which will include computer generated guidelines for health and behaviour management as well as an assessment of health risk status based on the data that you provide.

It is anticipated that the questionnaire will take an hour of your time. It is important that the sealed packages are returned to me in the Human Resources Section by (time and date). If you do not wish to participate DO NOT DISCARD THE QUESTIONNAIRES BUT RETURN THE COMPLETE PACKAGES TO THIS OFFICE (Number provided).

Ms Hall will collect and recycle them. Should you have any queries regarding this survey please contact Beth on (phone/fax number provided).

I thank you in anticipation of your participation.

Signed: Director of Resource Management.

Appendix F

LETTER OF INVITATION (FROM RESEARCHER)

Dear Sir,

As a Registered Nurse, voluntarily lecturing groups of predominantly middle aged men on the subjects of nutrition, self esteem, stress management, and developing a healthy lifestyle, I have a special interest in this group. With Australian statistical evidence demonstrating that despite advances in medicine and technology, male death rates or life expectancy has not improved, my exploratory study will identify the health educational needs of middle aged men. From the results it is hoped to plan a specific educational programme. I would like men aged forty to sixty years inclusive to complete a confidential questionnaire which is designed to help you discover how the choices you make each day affect your overall health. By participating in this assessment you will learn how you can make positive changes to your lifestyle, enabling you to reach a higher level of wellness. You will also have the opportunity to identify specific topics which would interest you.

All participants will be invited to an evening to discuss the results of this study.

Please telephone or fax me on (number provided) if you have any queries regarding this study.

Yours faithfully,

Beth Hall RN

Masters Student Edith Cowan University.

Appendix G

CONSENT FORM

In signing this document, I am giving consent to be interviewed by Beth Hall, Registered Nurse, a Masters student in the School of Nursing at Edith Cowan University. I understand that I am participating in a study which seeks to identify the health educational needs of middle aged men.

I understand that completion of the questionnaire could take up to an hour of my time. I also understand that the information obtained will not only provide information important to this study but will also help me discover how the choices I make each day affects my overall health. The personalised report, should I choose to receive it, will identify positive changes that I can make in my lifestyle and provide guidelines towards achieving a higher level of wellness.

I have been told that the answer sheet will be scanned and computer processed by the researcher in Perth, and that it is identifiable by a coded number known only to the researcher. I have been told that no reports of this study will identify me in any way, nor will my name and address be made available to any other persons for any purpose without my written permission.

I also understand that the researcher may wish to contact me for more information in the future and that if I wish to receive a personalised copy of the research report or be invited to an evening which reviews the results of this group study I will need to provide my contact address and telephone number. I understand that I can direct any questions regarding this research to Beth Hall, fax/phone (079 383 496).

I have read the above information and any questions I have asked have been answered to my satisfaction. I voluntarily agree to participate in this research activity and can refuse to answer any specific questions. I can decide to terminate the interview and withdraw from the study at any time. I agree that the research data gathered for this study may be published provided that my name is not used.

Date: _____ Signed: Respondent: _____ Researcher: _____

I do/do not wish to receive a personalised lifestyle assessment report.

I do/do not wish to participate in any further research project relevant to this topic

Address: _____

Phone/fax: _____

Appendix H.

LETTER OF CLEARANCE TO PROCEED WITH STUDY

Letter of clearance to proceed from the Committee for the Conduct of Ethical Research

Edith Cowan University Perth



EDITH COWAN
UNIVERSITY

PERTH WESTERN AUSTRALIA
JOONDALUP CAMPUS

OFFICE OF RESEARCH AND DEVELOPMENT

Joondalup Drive, Joondalup
Western Australia 6027
Telephone (09) 405 5555
Facsimile (09) 300 1257

COMMITTEE FOR THE CONDUCT OF ETHICAL RESEARCH

ETHICS APPROVAL

RESEARCHER: Beth Hall

CODE: 94/ 65

PROJECT TITLE:

Health Educational Needs of Middle Aged Men.

PERIOD OF APPROVAL:

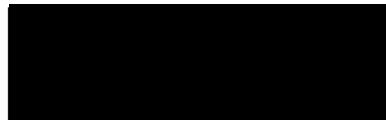
FROM: 30 October 1994

TO: 30 September 1995

This project complies with the provisions contained in the University policy on research involving human subjects.

Date of Approval: 30 September 1994

Committee Representative:



Designation: Executive Officer

Comment: Researchers are required to submit an ethics report as an addendum to that which they submit to their Faculty Research Committee or to the Office of Research and Development.

Appendix I

FORMAT FOR QUESTIONNAIRE FOLLOW UP LETTER

Name of Organisation

Memorandum:

Division of Human Resource Management

File Ref:

TO: (Staff member's name)

From: Director, Division of Human Resource Management

Subject: **Return of Survey: Health Educational Needs of Middle Aged Men.**

Date:

Would you please check to ensure that you have completed and returned the above survey which was forward to you via the internal mail on (date).

If you have already done so, please disregard this letter and I thank you for your participation.

If you do not wish to participate DO NOT DISCARD THE QUESTIONNAIRES BUT RETURN THE COMPLETE PACKAGES TO THIS OFFICE (Number provided).

They will be collected and recycled by the researcher. Should there be any queries please contact Ms Hall (telephone number provided).

Signed: Director of Resource Management.

Appendix J

CLASSIFICATION OF BLUE AND WHITE COLLAR WORKERS

WHITE COLLAR

Manager of small business (less than 5 employees), clerk, secretary, computer programmer, school teacher, nurse, salesperson, shopkeeper, farmer (if owns farm), clergy, 3rd and 4th division public servant.

Owner/manager of medium sized business (5-50) employees, department manager, bank manager, scientist, doctor, lawyer, accountant, headmaster, 2nd division public servant.

Director, manager of large business, (50 or more employees), senior manager, senior public servant, senior professional or technical executive.

BLUE COLLAR WORKER

Unskilled worker: laborer, waiter, postman, tram conductor, farm worker, council worker, storeperson, shop assistant, check out operator, bartender.

Semi-skilled Tradesperson/Worker: fisherman, apprentice, construction worker, driver (road or rail), engine operator, production process worker.

Skilled Tradesperson: tailor, electrician, carpenter, plumber, bricklayer, printer, cook, hairdresser, butcher, farm foreman, police officer, firefighter, armed forces, musician actor.

Source: Personal communication, L. Leek, Market Research Coordinator, September 6, 1994).

Appendix K**Budget.**

National Wellness Institute Inc. software	(AUD)\$1995.00
LAQ questionnaires and answer sheets	(AUD)\$ 250.00
Freight	\$ 50.00
Postage: letters and reports to respondents	\$300.00
Fax and telephone communication with USA	\$300.00
Photocopying of consent forms, letters, reports	\$200.00
TOTAL	\$3095.00