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Early maladaptive schemas in an Australian adult alcohol dependent clinical sample: Differences between men and women

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Signed: *Diana Lanie Janson*

Dated: 26th October 2015

Early Maladaptive Schemas in an Australian Adult Alcohol Dependent Clinical Sample:
Differences between Men and Women

Diana Lanie Janson

A Report Submitted in Partial Fulfilment of the Requirements for the Award of Bachelor of
Arts (Psychology) Honours, Faculty of Health, Engineering and Science.

Edith Cowan University.

Submitted (October, 2015)

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Early Maladaptive Schemas in an Australian Adult Alcohol Dependent Clinical Sample:
Differences between Men and Women

Abstract

Recent literature suggests that there are widespread differences between men and women's Early Maladaptive Schemas (EMSs) and that EMSs are highly prevalent in alcohol dependent populations. The present study examined differences between men and women's EMSs in an Australian clinical sample who had sought treatment specifically for alcohol dependence. A total of 111 men and 114 women completed the Young Schema Questionnaire – Long Form (YSQ-L3) between 2012 and 2015 in order to assess them on 18 EMSs. Despite previous findings suggesting that women report higher levels on a number of EMSs the present study found that women only scored significantly higher than men on the EMS of self-sacrifice (the tendency to excessively help others whilst continually sacrificing one's own needs). Although significant gender differences were not found for the majority of EMSs, Australian men and women reported higher levels of EMSs than found in earlier studies. As elevated EMSs were highly prevalent across the entire sample this provides preliminary support for the suitability of inter-gender Schema Group Therapy as an intervention to assist those with alcohol dependency in Australia.

Diana Lanie Janson

Dr Craig Harms

Dr Robert Segal

Dr Ross Hollett

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Early Maladaptive Schemas in an Australian Adult Alcohol Dependent Clinical Sample:
Differences between Men and Women

The harmful use of alcohol is a widespread concern worldwide and has been reported to be the third leading risk factor for poor health (World Health Organisation [WHO], 2010). According to WHO (2015) approximately 3.3 million deaths (5.9% of all global deaths) were attributed to the hazardous use of alcohol in 2012. Alcohol consumption has been linked with over 200 diseases, injury and psychological impairment (Australian Institute of Health and Welfare [AIHW], 2013; WHO, 2015). During 2013, nearly five million people in Australia, over the age of 14 (26%) were subjected to an alcohol related incident such as crime, domestic violence, child abuse/neglect and family breakdown (AIHW, 2013). Alcohol per capita consumption rates reveal Australians are amongst the highest consumers of alcohol worldwide (top 10%) (WHO, 2014). Additionally, problematic alcohol use was reported to cost the Australian economy an estimated \$15.3 billion, in 2004–05 (Collins & Lapsley, 2008).

There is a great demand for research on the underlying risk factors associated with hazardous or harmful alcohol consumption that would inform approaches to treatment (WHO, 2015). Of particular interest has been why some individuals are more vulnerable to alcohol dependence and the high rates of relapse after abstinence requires further investigation (Kissin, Tang, Ariera, Claus & Orwin, 2014; Walitzer & Dearing, 2006). A greater focus on prevention and treatment programs designed to identify and address the reasons why certain individuals are more susceptible to alcohol dependency is needed (WHO, 2015). Importantly, the negative health and social consequences of harmful alcohol consumption could be reduced through the implementation of cost effective, evidence-based treatment or intervention programs that target individual differences in alcohol dependent populations (Australian Bureau of Statistics [ABS], 2013; AIHW, 2013; WHO, 2015).

Treatment for Alcohol Dependency

A diverse range of alcohol treatment programs are available for individuals seeking alcohol rehabilitation (National Drug and Alcohol Research Centre [NDARC], 2013). Depending on individual requirements and the severity of alcohol dependency, some treatment facilities provide hospitalisation, inpatient residential respite, outpatient programs, brief intervention rehabilitation, self-help programs and community based treatments (Drug and Alcohol Office, [DAO] 2015). Alcohol rehabilitation also integrates a variety of therapeutic interventions such as detoxification, medication, alternative therapies (e.g., music, art, sports, reiki, spiritual), support groups, education and psychotherapy (AIHW, 2015; NDARC, 2013).

Psychotherapy is reported to be the most common form of treatment for individuals presenting with alcohol dependency in Australia. Psychotherapy can be delivered to individuals, groups, couples and families (ABS, 2013; AIHW, 2015; DAO, 2015; NDARC, 2013). Meta-analytic reviews examining the efficacy of psychological interventions for alcohol dependency have for example examined Cognitive Behavioural Therapy (CBT), Motivational Interviewing (MI), Psychodynamic Therapy (PT) and Motivational Enhancement Therapy (MET) (Agosti, Nunes & O'Shea, 2012; Baker, Hiles, Thornton, Hides & Lubman, 2012; Tolin, 2010).

CBT is by far the most widely used therapy, and has been found to be an effective form of treatment for alcohol dependency and many other psychological disorders (Ball, 2007a; Baker et al., 2012; Beck & Haigh, 2014; Butler, Chapman, Foreman & Beck, 2006; Tolin, 2010). CBT was originally developed for the treatment of depression in the 1960s by Aaron T. Beck. It is based on a cognitive model which articulates that thoughts, emotions and behaviours are all interconnected. CBT states that by recognising and modifying

dysfunctional thoughts, behaviours and emotions individuals can begin to overcome their psychological issues (Beck, 2011).

However, CBT has also received some criticism with several studies finding that CBT treatment effects are small or produce similar outcomes to those of other psychological treatments (Cutler & Fishbain, 2005; Magill & Ray, 2009; Project MATCH Research Group, 1997; Riper et al., 2014). Researchers have also found that drop-out rates for CBT are extremely high (Bados, Balaguer & Saldana, 2007; Davis, Hooke & Page, 2006). Some studies have found that CBT is often inadequate in the treatment of alcohol dependency as a significant number of individuals relapse or fail to respond (Agosti et al., 2012; Feeney, Young, Connor, Tucker, McPherson, 2002; Rose, Skelly, Badger, Naylor & Helzer, 2012). It is therefore important to consider other potential psychological treatments for alcohol dependency (Young, Klosko, & Weishaar, 2003).

Schema Therapy (ST) and Early Maladaptive Schemas (EMSs)

There is growing support for Schema Therapy (ST), as a psychotherapeutic intervention for treating alcohol dependency (Young et al., 2003; Young, Rafaeli, & Bernstein, 2011). ST is an integrative therapy which was largely developed by Jeffrey Young over a 20 year period. Recognising that some clients did not respond well to CBT he felt that effective therapy needed to focus more on underlying core schemas related to negative thoughts. ST focuses on the self-concept, which is the collection of beliefs one has about their abilities, uniqueness, behaviours and relationships (Young et al., 2003). Although an empirically based therapy in its own right, the evolution of ST is based on models, theories, methods and techniques that originated in other psychotherapy traditions such as CBT, Gestalt Therapy, psychodynamic theories and attachment theory (Van Vrieswijk, Broersen & Nadort, 2012).

ST targets deeper and more permanent cognitive structures than CBT by challenging core beliefs or schemas. Schemas are mental concepts that enable us to take shortcuts to interpret, classify and predict our environment (Beck & Haigh, 2014). The majority of schemas are adaptive positive cognitions that we use to categorise experiences to better understand and organise our world (Beck & Haigh, 2014; Young et al., 2003). For instance, different social contexts (e.g., rock concert, work, wedding, beach, church) are associated with different expectations, behaviours and even clothing. Learning these associations is important for developing appropriate automated behaviour and expectations in specific situations (Young et al., 2003).

By contrast, maladaptive schemas are typically self-defeating cognitions which can prevent or distort the learning of new information (Ball, 2007a; Beck & Haigh, 2014; Young et al., 2003). Maladaptive schemas are unconditional beliefs and feelings relative to one's environment which when activated produce intense negative emotions, cognitions, memories and bodily sensations (Young et al., 2003). For example when a failure schema (the belief one is incapable of performing as well as others) is triggered individuals may feel stupid or incompetent and, as a result, do not even attempt to pursue achievements. Moreover, when presented with evidence that discredits this schema, individuals with a strong failure schema may unwittingly distort knowledge to sustain the validity of the failure schema (Young et al., 2011).

In order for ST to effectively target these enduring cognitive structures, it is important to conceptualise and measure the dysfunctional schemas that underlie them. One conceptualisation of dysfunctional schemas that is receiving emerging support in the clinical field is the system of Early Maladaptive Schemas (EMS) proposed by Young et al., (2003). Generally acquired in childhood or adolescence EMSs are stable and enduring negative patterns of cognition and emotion that are highly dysfunctional. EMSs are a distortion of the

reality about oneself, the environment and relationships and are often augmented during an individual's lifetime (Ball, 2007a). Moreover, EMSs can have different degrees of intensity and pervasiveness with stronger schemas triggered more frequently and producing longer lasting negative emotions (Rafaeli, Bernstein & Young, 2010; Young et al., 2011).

Often activated by everyday events and emotions, EMSs are then maintained through cognitive distortions, self-defeating patterns of behaviour and unhealthy coping techniques (Ball, 2007b). Cognitive distortions are inaccurate or irrational thought patterns which reinforce negative thoughts and emotions, facilitating unhealthy patterns of behaviour (Ball, 2007a). Individuals are driven to preserve a consistent concept of themselves and their environment and tend to distort information to validate their EMSs (Young et al., 2003).

As well as EMSs there are several other components to ST such as schema modes and schema coping styles (Young et al., 2003). Schema modes are defined as emotional shifts and coping responses that are triggered by the environment. Maladaptive modes occur when EMSs or coping responses are activated through emotions resulting in the over or under reaction to life situations (Young et al., 2011). Schema coping styles are an individual's behavioural responses, usually developed as a child to adapt, maintain or avoid EMSs as a means of evading psychological distress (Ball & Young, 2000; Young et al., 2003).

Accordingly to Young et al., (2003) there are three schema coping styles schema surrender, schema avoidance and schema overcompensation. Schema surrender is where an individual inertly yields to a schema, considers a schema to be the truth and behaves in a way which validates that schema. Schema avoidance can occur in one of three ways, namely emotional, behavioural and cognitive. Emotional avoidance focuses on strategies to block thoughts or feelings that activate schemas which can involve the use of drugs or alcohol. Behavioural avoidance entails averting situations in which a schema could be activated. Cognitive avoidance involves either consciously or unconsciously not thinking or

remembering upsetting or painful events (Rafaeli et al., 2010; Young et al., 2003). Schema overcompensation transpires when an individual behaves in a way that is contradictory to a particular schema to refrain from activating that schema (Young et al., 2011). Coping styles and reactions usually develop during childhood to accommodate problematic life situations, although initially adaptive coping styles ultimately become habitual and maladaptive (Rafaeli et al., 2010). As the current study is interested in the role of EMSs in the treatment of alcohol dependency, understanding triggers for emotional distress that lead to the use of alcohol as a coping strategy is essential.

Schema Domains

According to Young et al., (2003) EMSs can be summarised into five schema domains. These domains are Disconnection and Rejection, Impaired Autonomy and Performance, Impaired Limits, Other Directedness and Over-Vigilance and Inhibition as summarised below:

Disconnection and Rejection refers to an individual's belief that their needs for security, protection, nurturance, love, acceptance and empathy will not be met in a predictable manner. People who identify with EMSs from within this domain often originate from families who were detached, abusive, rejecting, and unpredictable or families that were isolated or separated from the community. Individuals with EMSs (particularly EMSs emotional deprivation, abandonment, mistrust/abuse and social isolation) in this domain generally present with high levels of psychological impairment and are unable to develop secure, fulfilling relationships with others (Young et al., 2003).

Impaired Autonomy and Performance refers to beliefs about oneself and the surrounding environment that restricts one's ability to function independently, survive or be successful without help from others. EMSs from within this domain are associated with an overprotective upbringing, over emotional involvement and parents/peers who failed to

reinforce independence outside the family environment. Individuals in this domain often have a sense of helplessness, fear or failure (Rafaeli et al., 2010).

Impaired Limits refers to a lack of internal boundaries, accountability to others and the inability to plan and stick to long term goals. EMSs from within this domain are related to a childhood in which there was minimal parental guidance or discipline, the belief that one is superior to others, overindulgence and insufficient guidance or direction. Individuals with EMSs in this domain often set unrealistic personal goals and fail to cooperate, commit to or respect the rights of others (Young et al., 2011).

Other Directedness refers to a plethoric fixation on the requirements, needs, desires and reactions of others to the detriment of one's own needs in an attempt to gain love, approval and avoid confrontation. EMSs from within this domain are thought to derive from being in a family environment where parents placed their own needs/desires or social status before that of their children. Often individuals with EMSs in this domain suppress or are unaware of their own emotions or preferences (Young et al., 2003).

Over-Vigilance and Inhibition refers to the withholding of spontaneous impulses, emotions and decisions. It can also involve setting strict, inflexible subjective rules, an excessive emphasis on achievement and ethical behaviour often at the expense of one's own health, happiness, contentment, relationships and individualism. EMSs from within this domain often emerge from a grim, authoritative family environment that is sometimes extremely disciplinary. Individuals with EMSs in this domain are often hyper-vigilant, pessimistic, over cautious, fearful and worrisome (Rafaeli et al., 2010).

The Measurement of EMSs: Young Schema Questionnaire – Long Form (YSQ-L3)

The Young Schema Questionnaire – Long Form (YSQ-L3) (Young & Brown, 2003) has been developed with 232 items (see example questions Appendix A) to capture a total of 18 EMSs (Table 1). Originally created as an assessment tool for clinical purposes the YSQ

was first published by Young and Brown (1990). Young and Brown (2003) also developed an accompanying YSQ Scoring Sheet and an YSQ Interpretation Grid including pre-determined cut off scores for clinical interpretation (see Appendix B and Appendix C). The original YSQ (1990) comprised of 205 items associated with 16 EMS. Since the development of the original YSQ, Young and Brown have developed several revised, short form versions and other Schema Inventories (Schema Therapy Institute, 2015).

Table 1.

Early Maladaptive Schemas (YSQ-L3) (Young & Brown, 2003)

Early Maladaptive Schemas	Description
Disconnection and Rejection (5 Schemas)	
Emotional Deprivation	The expectation that one's emotional needs will not be fulfilled by others.
Abandonment	The conviction that all relationships will imminently end.
Mistrust/Abuse	The expectation people will intentionally harm, abuse, exploit and manipulate others.
Social Isolation	The belief that one is different from others, secluded from the world and doesn't fit in.
Defectiveness	The mindset that one is inwardly defective, bad and subordinate to others.
Impaired Autonomy and Performance (4 Schemas)	
Failure	The assumption that one will never be capable of performing as well as others.
Dependence	The outlook that one is incapable of handling day to day responsibilities without assistance from others.
Vulnerability	The expectation that catastrophic events are likely to occur and cannot be prevented.
Enmeshment	The pattern of over emotional involvement with others.
Impaired Limits (2 Schemas)	
Entitlement	The opinion that one is superior and can do whatever they want even if it is to the detriment of others.
Insufficient Self-Control	The inability to restrain one's impulses or feelings.
Other Directedness (3 Schemas)	
Subjugation	The view that one must surrender control to others to avoid negative consequences.
Self-Sacrifice	Always helping others whilst continually sacrificing one's own needs.
Approval Seeking	An excessive emphasis on seeking the approval of others often at the expense of oneself
Over-Vigilance and Inhibition (4 Schemas)	
Emotional Inhibition	The certitude that one must suppress emotions to avoid retaliation, harming others or being embarrassed.
Unrelenting Standards	The conviction that whatever one does is not good enough.
Negativity/Pessimism	The permeating focus on the negative facets of life whilst minimising the positive aspects.
Punitiveness	The certitude that everyone, including themselves should be harshly punished for making mistakes.

Note: Items in bold represent the five schema domains.

EMSs and Alcohol Dependence

According to ST, EMSs are omnipresent and a pivotal determinate in the evolution and maintenance of alcohol dependency (Rafaeli et al., 2010; Young et al., 2003). That is, addictive behaviours, including alcohol dependence are often used as a way of coping to avoid the pain and discomfort associated with EMSs (Ball, 2007a; Young et al., 2003). High levels of several EMSs have been proposed as personal risk factors for substance dependency. For example, individuals who present with a subjugation EMS often try to suppress their needs, leading to a build-up of angry emotions and provoking maladaptive behaviours such as substance use (Rafaeli et al., 2010). Defectiveness and emotional deprivation EMSs have been primarily associated with avoidance coping styles which often underlie substance dependence (Young et al., 2003). Additionally, addictive behaviours often accompany the insufficient self-control EMSs, through avoidance and/or the inability to set limits on ones feelings or impulses (Ball, 2007a).

Researchers have focused on establishing the link between EMSs, as measured by the various versions of the YSQ, where self-sacrifice, unrelenting standards, insufficient self-control, punitiveness, subjugation, mistrust/abuse, abandonment, defectiveness, emotional deprivation and vulnerability EMSs have been found to be endorsed amongst those with alcohol dependency and have been linked with higher levels of alcohol consumption (Brotchie, Hanes, Wendon, & Waller, 2007; Decouvelaere, Graziani, Gackiere-Eraldi, Rusinek & Hautekeete, 2002; Roper, Dickson, Tinwell, Booth & McGuire, 2010; Shorey, Anderson & Stuart, 2012a; Young et al., 2003). Research indicates that high levels of alcohol consumption are often employed as a coping mechanism in order to circumvent the negative affect elicited through EMSs (Ball, 2007a; Young et al., 2003). This is supported by a number of studies which have shown evidence for a relationship between EMSs and alcohol

dependency (Ball & Cecero, 2001; Brotchie, Meyer, Copello, Kidney & Waller, 2004; Shorey et al., 2012a).

As EMSs are highly prevalent in substance dependent populations targeting EMSs in therapy has been proposed to facilitate individuals in identifying and restructuring dysfunctional thoughts and patterns of self-defeating behaviour (Elmquist, Shorey, Anderson & Stuart, 2015; Griffiths, 2014; Shorey, Anderson & Stuart 2013a; Shorey, Stuart & Anderson, 2013c; Shorey, Stuart & Anderson, 2013d; Young et al., 2003). As an intervention, the aim of ST is to challenge EMSs associated with maladaptive coping styles, such as alcohol use in order to improve health and well-being (Rafaeli et al., 2010). Research indicates that the use of ST to target EMSs has improved treatment outcomes for alcohol dependent individuals (Ball, 2007a; Shorey, Stuart, Anderson & Strong, 2013e; Young et al., 2003). Several studies have also found that women presenting for treatment endorse higher levels of EMSs than men (Brotchie et al., 2004; Pauwels et al., 2013; Shorey et al., 2012a). Roper et al., (2010) found a substantial improvement in individual EMSs levels after short-term residential treatment for alcohol use. Furthermore, a significant reduction was found in 13 EMSs after a four week residential treatment program for substance dependency that specifically focused on the treatment EMSs (Shorey et al., 2013e).

Differences between Men and Women in Alcohol Consumption

Gender differences have been found in the quantity and pattern of alcohol consumption and alcohol related mortality and morbidity rates with men (26%) two times more likely to exceed lifetime risk guidelines than women (10%) (AIHW, 2013; WHO, 2015; Roerecke & Rehm, 2013). Men in Australia are reported to begin drinking at a younger age (15 years) with harmful levels of consumption more likely to occur for men in their late twenties to forties (ABS, 2008; AIHW, 2013). In contrast, Australian women begin drinking at an older age (17 years) and are more likely to consume harmful quantities of alcohol in

their late teens and early twenties (ABS, 2008; AIHW, 2013). According to AIHW (2015) during 2011-2012 there was a rise in the demand for public alcohol treatment programs with approximately 50,000 individuals seeking treatment in Australia. Two thirds of those seeking treatment were men (67%) with over half aged between 20-39 years (55%) (AIHW, 2015).

Recent research in Australia suggests that customary patterns of alcohol consumption are changing and women are now consuming higher levels of alcohol (NDARC, 2013). Gender differences and hazardous levels of alcohol consumption have also been found to be influenced by socio-economic status, education levels, relationship status, psychiatric comorbidity, family history and childhood maltreatment (Fenton et al., 2013; French, Sargent-Cox, Kim & Anstey, 2014; Khan et al., 2013; Kienast, Stoffers, BERPohl, & Lieb, 2014; Shorey et al., 2012a; Shorey, Anderson & Stuart, 2012b). An international study (33 countries – including Australia) and a study conducted in Australia, Korea and the United States found that higher socio-economic status and educational attainment were associated with increased levels of alcohol consumption (French et al., 2014; Grittner, Kuntsche, Gmel & Bloomfield, 2012). Research suggests that marriage is a protective factor against alcohol dependency and relapse especially for men (Elliott, 2013; Walitzer & Dearing, 2006). High levels of alcohol consumption have also been found to be associated with increased psychological comorbidity, especially for women (AIHW, 2013; Kienast et al., 2014; NDARC, 2013). Additionally, a family history of alcohol abuse and exposure to childhood maltreatment has also been linked with increased alcohol use as an adult (Fenton et al., 2013; Keane, Magee & Lee, 2015).

Several studies have found that men and women respond differently to treatment and that gender sensitive treatment results in improved outcomes (Kissin et al., 2014; Walitzer & Dearing, 2006). Research suggests that men and women behave differently in group therapy depending on whether groups are gender specific or of mixed gender (Holmes, 2002; Ogrodniczuk, Piper & Joyce, 2004; Yalom & Leszcz, 2008). Males in mixed gender groups

are more likely to confide in others and show less aggression whereas in male only groups they are more likely to compete and display less intimacy (Ogrodniczuk et al., 2004; Yalom & Leszcz, 2008). In contrast, females in mixed gender groups may feel overpowered, participate less and may defer to male group members (Holmes, 2002; Yalom & Leszcz, 2008). Although, when men are in the minority in a mixed gender group they can feel isolated and excluded (Holmes, 2002; Ogrodniczuk et al., 2004; Yalom & Leszcz, 2008). This could therefore be an indication that mixed gender groups are more beneficial for men than women.

EMSs for Alcohol and Other Drug Disorders (AOD)

Several studies have examined EMS differences between men and women presenting with alcohol and other drug (AOD) disorders (Table 2). Two studies compared clinical (alcohol dependent only) and non-clinical populations where they did not find any significant differences in EMSs between men and women (Decouvellaere et al., 2002; Roper et al., 2010). A further two studies included participants with substance dependency where it was found that women scored significantly higher than men on several EMSs (Pauwels et al., 2013; Shorey et al., 2015). Another study including a clinical (alcohol and opiate dependent) and non-clinical sample found men scored significantly higher for the EMS of emotional inhibition and women scored significantly higher for the EMS of dependence (Brotchie et al., 2004).

There are a number of difficulties in making clear statements about gender differences in EMSs because EMS research has been conducted across a number of populations, including those with both alcohol and substance dependence, clinical and non-clinical groups and individuals with psychological disorders (Elliot, 2013; Saddichha, Kumar & Pradhan, 2012; Shorey, Stuart & Anderson, 2013b; Trincas et al., 2014; Young et al., 2003). Findings in relation to gender differences and EMSs are often conflicting which may be an indication that EMSs differentiate across clinical and non-clinical populations (Brotchie et al., 2004;

Hawke & Provencher, 2012; Pauwels et al., 2013; Shorey et al., 2012a). The research that does include both alcohol and substance disorders indicates that men and women present with similar EMSs although women often score significantly higher than men in the majority of EMSs.

Table 2.

Studies Examining the Differences between Men and Women's EMSs using the YSQ Including Participants with Alcohol and/or Substance Disorders.

Authors/Year	Focus	Sample	Conclusions
Brotchie, Meyer, Copello, Kidney & Waller (2004)	Alcohol, Opiates Clinical/Non-Clinical YSQ-S	Alcohol $N = 44$ Opiates $N = 36$ Alcohol/Opiate $N = 17$ Clinical $N = 97$ Non-Clinical $N = 87$	Clinical group scored sig higher 12/15 EMSs than non-clinical group Males scored higher on EMS emotional inhibition. Females scored higher on EMS dependence.
Decouvelaere, Graziani, Gackiere-Eraldi, Rusinek & Hautekeete (2002)	Alcohol only Clinical/Non-Clinical YSQ (French translated version)	Alcohol dependent (Clinical) $N = 46$ Non-Clinical $N = 50$	Alcohol dependent group scored sig higher on 12/13 EMSs. No significant gender differences were found.
Pauwels et al., (2013)	Alcohol & Substance Use Eating Disorders YSQ-L2	Alcohol & Substance Use $N = 351$ (242 men/109 women) Eating Disorders (218 women)	Women in alcohol & substance group scored sig higher on 7/16 EMSs than men (abandonment, defectiveness, social undesirability, failure, dependence, subjugation & self-sacrifice.
Roper, Dickson, Tinwell, Booth & McGuire (2010)	Alcohol only Clinical/Non-Clinical YSQ-S	Alcohol dependent (Clinical) $N = 50$ Non-Clinical $N = 50$	Alcohol dependent group scored sig higher on 6/15 EMSs (emotional dependence, mistrust, defectiveness, functional dependence, vulnerability, subjugation). No gender differences were found.
Shorey, Elmquist, Anderson & Stuart (2015)	Alcohol & Drug Use Depression Anxiety YSQ-L3	Alcohol & Drug Use $N = 122$ (81 men/41 women)	Alcohol use was sig associated with domain of Impaired Limits. Drug use was sig associated with 4/5 domains (all except disconnection & rejection. Females scored sig higher in 4/5 domains (excluding Impaired Limits)
Shorey, Stuart & Anderson (2012a)	Alcohol only YSQ-L3	Men $N = 628$ Women $N = 226$	Women scored sig higher on 14/18 EMSs with the highest sig including subjugation, enmeshment, self-sacrifice & emotional deprivation

Note: Current study partially based on the study in boldface

Research has generally found that clinical populations report a significantly higher number of EMSs than non-clinical populations (Hawke & Provencher, 2011; Shorey, Stuart &

Anderson, 2014b). That is, specific EMSs are prevalent across multiple forms of psychopathology (Halvorsen, Wang, Eisemann & Waterloo, 2010; Pauwels et al., 2013; Trincas et al., 2014). For instance, many substance dependent individuals present with comorbid psychological disorders such as depression, anxiety, bipolar disorder, personality disorders, obsessive compulsive disorder (OCD), post-traumatic stress disorder (PTSD) and eating disorders (Brenning, Bosmans, Braet & Lewis 2012; Cockram, Drummond & Lee, 2010; Franko et al., 2005; Nilsson, Straarup & Halvorsen, 2014; Shorey, Anderson & Stuart, 2014a; Shorey, Elmquist, Anderson & Stuart, 2015).

With the exception of the study conducted by Shorey et al., (2012a) research has not specifically addressed gender differences in EMSs in an adult alcohol dependent clinical population. In addition, many studies on gender and EMSs have used earlier versions of the Young Schema Questionnaire that only captures 15 or 16 EMSs rather than the more recent and comprehensive version (YSQ-L3) that evaluates 18 EMSs (Young & Brown, 2003). Previous versions of the YSQ contained fewer questions and did not include the EMSs of approval seeking/recognition seeking, negativity/pessimism or punitiveness. Based on empirical research and clinical experience Young and Brown (2003) developed an updated conceptual model of the YSQ-L3 with the aim of targeting a more comprehensive range of EMSs.

Shorey et al., (2012a) examined the responses of 854 patients to the YSQ-L3 who had attended a residential 12 step program for alcohol dependency over a five year period in the United States. Shorey et al., (2012a) found that women scored significantly higher than men on 14 of the 18 EMSs assessed using the YSQ-L3. The 14 EMSs found to be significant were emotional deprivation, abandonment, mistrust/abuse, social isolation, defectiveness, failure, dependence, vulnerability, enmeshment, insufficient self-control, subjugation, self-sacrifice, approval seeking and negativity/pessimism. Results were analysed using multiple *t*-tests with

alpha set at $\alpha = .05$ for each test. If a more stringent alpha was set to control for Type I error (i.e., $\alpha = .01$) then significant differences for vulnerability and negativity/pessimism EMSs would not have been found.

Of these 14 EMSs the largest effect sizes (ranging from small to medium) were for subjugation (the belief that one must surrender control to others to avoid negative consequences); enmeshment (the pattern of over emotional involvement with others); emotional deprivation (the belief that one's emotional needs will not be met by others); and self-sacrifice (always helping others whilst continually sacrificing one's own needs). Across both genders, self-sacrifice, unrelenting standards, insufficient self-control and punitiveness were found to be elevated in individuals with alcohol dependency (Shorey et al., 2012a). Moreover, Shorey et al., (2012a) were the first to find significant gender differences in EMSs in alcohol dependent adults.

The Present Study

Given that only one study to date has examined differences in EMSs between men and women, and that Australia is reported to have one of the highest rates of alcohol consumption in the world (WHO, 2014), it is important to investigate the pattern of EMSs in an Australian context. Research indicates that men and women may also differ in the development of EMSs which could ultimately affect ST treatment outcomes, diagnosis, relapse and response rates (Young et al., 2003). Also given that men and women have different alcohol use patterns; the elevated endorsement of different EMSs would likely have implications for specific treatment approaches for alcohol dependence (ABS, 2008; AIHW, 2013; Young et al., 2003). Should evidence be found that different EMSs are endorsed by each gender this may have implications for the effectiveness of ST. Different cognitive structures may need to be targeted depending on the gender of the client. For example, research indicates that women are more likely to present with a self-sacrifice EMS where one excessively focuses on or put

others needs at the expense of their own emotional needs (Hawke & Provencher, 2012; Shorey et al., 2012a; Shorey, Stuart & Anderson, 2012c). By contrast, men have reported significantly higher entitlement EMSs than women (Hawke & Provencher, 2012; Lachenal-Chevallet, Mauchand, Cottraux, Bouvard & Martin, 2006; Nilsson et al., 2014; Tremblay & Dozois, 2009). Entitlement schemas are associated with the belief that one is superior, entitled to special rights or privileges and are more important than others, whilst having little empathy for the needs or emotions of others (Young et al., 2003).

Should men present with higher entitlement and women with higher self-sacrifice EMSs together in a clinical group treatment setting then it may be difficult for the therapy to effectively target the underlying cognitive structure of both EMSs. Furthermore, the conflicting nature of these particular EMSs in men and women could work to inadvertently reinforce and intensify maladaptive core beliefs (Young et al., 2003). Additionally, the treatment of EMSs that are not elevated would not only be counterproductive, but also a misuse of valuable resources.

To extend upon the work of Shorey et al., (2012a), and because EMSs have been found to be highly prevalent in alcohol dependent populations, the present study examined differences between men and women in EMSs in an Australian adult alcohol dependent sample (Roper et al., 2010; Shorey et al., 2012a; Young et al., 2003). In conformance with Shorey et al.'s, (2012a) study clinical interpretations scores are also investigated to assess gender differences in EMSs from a clinical perspective.

Furthermore, and consistent with Shorey et al. (2012a), the present study used a more comprehensive version of the YSQ that captures a broader range EMSs (Young et al., 2003) than shorter or older versions of the YSQ used by a number of recent studies (Nilsson et al., 2014; Pauwels et al., 2013; Roper et al., 2010). Therefore the aim of the present study was to determine if there are any differences between treatment-seeking alcohol dependent men and

women across all 18 possible EMSs in an Australian sample. Based on the findings reported by Shorey et al., (2012a) it was expected that, consistent with statistical significance as reported by Shorey et al., (2012a) where alpha was less than $\alpha = .01$ women will report significantly elevated levels of EMSs compared to men for emotional deprivation (the belief that one's emotional needs will not be met by others); abandonment (the conviction that all relationships will imminently end); mistrust/abuse (the expectation that people will intentionally harm, abuse, exploit and manipulate others); social isolation (the belief that one is different from others, secluded from the world and doesn't fit in); defectiveness (the mindset that one is inwardly defective, bad and subordinate to others); failure (the assumption that one will never be capable of performing as well as others); dependence (the outlook that one is incapable of handling day to day responsibilities without assistance from others); enmeshment (the pattern of over emotional involvement with others); insufficient self-control (the inability to restrain one's impulses or feelings); subjugation (the belief that one must surrender control to others to avoid negative consequences); self-sacrifice (always helping others whilst continually sacrificing one's own needs) and approval seeking (an excessive emphasis on seeking the approval of others often at the expense of oneself).

Method

Participants

In total, there were 225 participants. Of this total, 111 (49%) were men aged 22-71 ($M = 47.96$, $SD = 12.83$) and 114 were women (51%) aged 20-78 ($M = 48.57$, $SD = 11.82$). The overall mean age of the participants was 48.29 years ($SD = 12.28$). Sampling was purposive, as the study only targeted adults attending therapy for alcohol dependency at a private psychiatric hospital in Western Australia. Thirty two participants attending Schema Group Therapy for alcohol dependency were approached to participate in the proposed study. In

addition, 193 pre-existing patient questionnaires (YSQ-L3) retained by the psychiatric hospital were also included in the data analysis.

All patients were referred by either their general practitioner or psychiatrist to be eligible for inclusion in the program. Patients were screened for both alcohol and drug use. Only patients presenting with alcohol dependency were included in the current study. The clinic offers both detoxification and rehabilitation. If detoxification is necessary then this must be completed under the supervision of qualified medical staff before commencement in the Alcohol and Substance Abuse Program. Participants attending the Alcohol and Substance Abuse Program from July 2015 to September 2015 were invited to participate in the study by consenting to having their completed YSQ-L3 included in the studies data analysis.

Pre-existing patient records from August 2012 to June 2015 were de-identified and included in the data pool for the purpose of this research. All patients were required to sign a Privacy Statement when they are admitted to hospital whereby patients consent to the hospital collecting, using and disclosing information under the Privacy Act 1988. In compliance with all applicable privacy laws, questionnaires and demographic information retrieved from archival data were made non-identifiable for the purpose of this research.

Demographic Information. Demographic information (gender, age, postcode, country of birth and marital status) were obtained directly from participants when the YSQ-L3 was administered or from the private psychiatric hospital admittance records. Of the 225 participants who took part in the study 210 (93%) stated their age. Postcode details were provided by 209 (93%) participants, 31(14%) participants recorded that they were born somewhere else other than Australia. Of the participants in the current study 160 provided details of their marital status, 32 (14.2%) participants were single, 75 (33.3%) were married, 21 (9.4%) were divorced, 32 (14.2%) stated other and 65 (28.9%) did not provide details of marital status.

Postcodes/Socio-Economic Status. Participant's postcodes were used as an indicator of social economic status as socio-economic status has been found to be positively associated with increased alcohol consumption (French et al., 2014; Grittner et al., 2012). Census data from the Socio-economics Indexes for Areas (SEIFA) was obtained and socio-economic status was evaluated by employing the SEIFA (ABS, 2011). The SEIFA is designed to allow distributional analysis of socio-economic advantage and disadvantage within postal areas. Areas are rated using a decile number (1-10) with the lowest socio-economic areas given a decile number of one and the highest socio-economic areas given a decile number of ten (ABS, 2011). Of the 225 participants in the current study 209 provided their postcode (Table 3). Almost 70% of participants resided in areas with a Decile number of eight, nine or ten indicating areas of high socio-economic advantage. That is, the majority of participants in the current study according to the Australian Bureau of Statistics (ABS, 2011) would be expected to have higher than average levels of education and income.

Table 3.

Participants Postcodes Ranked by Decile Number as an Indicator of Socio-Economic Status in Accordance with SEIFA (ABS, 2011).

Decile No	Number of Participants	Percent
Decile 1	0	0.0%
Decile 2	4	1.9%
Decile 3	8	3.8%
Decile 4	0	0.0%
Decile 5	24	11.5%
Decile 6	19	9.1%
Decile 7	9	4.3%
Decile 8	20	9.6%
Decile 9	45	21.5%
Decile 10	80	38.3%
TOTAL	209	100.0%

Materials

Young Schema Questionnaire – Long Form (YSQ-L3) (Young & Brown, 2003).

The YSQ-L3 is a 232 item self-report measure that appraises Young and Brown's (2003) 18 EMSs (see example questions Appendix A). The YSQ-L3 is protected by copyright and was supplied by the hospital. The 18 EMSs are scored using a 6 point Likert scale with higher scores indicative of specific EMSs (range 1 = *completely untrue of me* to 6 = *describes me perfectly*). Potential score ranges for each of the 18 EMSs are as listed: emotional deprivation (9 questions: 0-54), abandonment (17 questions: 0-102), mistrust/abuse (17 questions: 0-102), social isolation (10 questions: 0-60), defectiveness (15 questions: 0-90), failure (9 questions: 0-54), dependence (15 questions: 0-90), vulnerability (12 questions: 0-72), enmeshment (11 questions: 0-66), subjugation (10 questions: 0-60), self-sacrifice (17 questions: 0-102), emotional inhibition (9 questions: 0-54), unrelenting standards (16 questions: 0-96), entitlement (11 questions: 0-66), insufficient self-control (15 questions: 0-90), approval seeking (14 questions: 0-84), negativity/pessimism (11 questions: 0-66) and punitiveness (14 questions: 0-84).

The score for each EMS is calculated by summing the item responses only when a four, five or six was selected on the 6-point Likert scale (Appendix B). The total score for each EMSs can then be classified (low, medium, high or very high) using the Interpretation Grid in order to determine clinical interpretations as devised by Young and Brown (2003) (Appendix C). This scoring method for clinical interpretations is consistent with the scoring method used by Shorey et al., (2012a). Subscales of the YSQ have been found to have high test-retest reliability and internal consistency ($\alpha = .83$ to $.96$), good factor structure and high convergent and discriminant validity (Cockram et al., 2010; Lee, Taylor & Dunn, 1999; Young & Brown, 2003).

Procedure

Patients are required to attend daily group sessions for two and a half weeks. Groups are small and only comprise of a maximum of six to eight patients. The program includes five core modules to educate participants about the underlying function of alcohol and substance dependency and facilitates patients in adopting positive coping strategies. At the conclusion of the program patients are encouraged to attend weekly relapse prevention support groups run at the hospital. At the beginning of session two the participants of each ST group were provided with information on the current research project and were provided with a written information letter explaining the current research inviting them to participate (Appendix D). Participants were asked to sign a consent form agreeing to participate in the current study (Appendix E).

As a group, participants were given instructions and asked to complete the YSQ-L3 individually under clinical supervision. Participants were advised that involvement was voluntary and that they may withdraw from the study at any time, without consequence. All patients were required to complete the YSQ-L3 as part of their therapy regardless of whether or not they took part in the current study. Once completed the YSQ-L3 was handed back to their group therapist. The completed YSQ-L3 obtained from patients consenting to participate in the study were collated with demographic information and de-identified before being analysed. The active phase of data collection from five groups took place over a period of 14 weeks.

Data Analysis

All statistical analyses were conducted using IBM SPSS Statistical V22.0 (Statistical Package for the Social Sciences).

Clinical Interpretations for YSQ-L3 Scores. In order to compare if the proportion of scores falling within score bands established by Young et al, (2003) were consistent with the

results found by Shorey et al., (2012a) clinical interpretations were conducted for men and women for each EMS (Table 4). Using the YSQ-L3 Scoring Sheet the number of questions where a participant stated a number of four, five or six for each EMS are added (Appendix B). These scores are then further categorised according to score bands provided in the Interpretation Grid (Appendix C). Each score for each EMS is then classified as low, medium, high or very high. Scores falling in the high to very high range were indicative of specific EMSs; medium scores indicate that specific EMSs may be present and require further investigation whilst low scores indicate specific EMSs are unlikely (Young & Brown, 2003).

Differences between Men and Women in EMSs. To test the prediction that women would report higher levels of EMSs than men for emotional deprivation, abandonment, mistrust/abuse, social isolation, defectiveness, failure, dependence, enmeshment, insufficient self-control, subjugation, self-sacrifice or approval seeking multiple one-way ANOVA's were conducted to compare each EMS score for men and women (Table 3). Effect sizes (Cohen's *d*) were also calculated and interpreted using Cohen's 1992 guidelines (Cohen, 1992).

Results

Prior to analysis, EMS subscale scores were screened to check for errors in data entry and normal distribution. Skewness (.162) and kurtosis (.323) ranges were interpreted as acceptable for parametric analysis. To screen for potential outliers participant's scores were converted to *z* scores and scores over $z = 3.29$ were classified as outliers. Three outliers were found (participants 3, 80 and 86). To reduce the impact of bias all outliers were substituted with the highest score not considered to be an outlier (Field, 2013).

Clinical Interpretations for YSQ-L3 Scores

Clinical interpretation scores indicated that both men and women endorsed similar EMSs as very high (Table 4). For both men and women the EMS subscale scores for self-sacrifice, unrelenting standards and insufficient self-control were mostly classified as very

high. For women only, emotional deprivation EMS scores were mostly classified as very high. Whereas for men only, social isolation EMS scores were mostly classified as very high.

Table 4.

Early Maladaptive Schemas (YSQ-L3) Clinical Interpretation Scores for Men and Women

Schema	Men %	Women %	Total %	Schema	Men %	Women %	Total %
Emotional Deprivation				Entitlement			
Low	48.6	35.1	41.8	Low	36.0	49.1	42.7
Medium	16.2	14.9	15.6	Medium	18.0	19.3	18.7
High	14.4	16.7	15.6	High	27.9	18.4	23.1
Very High	20.7	33.3	27.1	Very High	18.0	13.2	15.6
Abandonment				Insufficient Self-Control			
Low	29.7	30.7	30.2	Low	15.3	16.7	16.0
Medium	23.4	21.9	22.7	Medium	18.0	28.9	23.6
High	21.6	16.7	19.1	High	27.0	11.4	19.1
Very High	25.2	30.7	28.0	Very High	39.6	43.0	41.3
Mistrust/Abuse				Subjugation			
Low	31.5	37.7	34.7	Low	40.5	34.2	37.3
Medium	22.5	14.9	18.7	Medium	18.9	18.4	18.7
High	17.1	16.7	16.9	High	17.1	19.3	18.2
Very High	28.8	30.7	29.8	Very High	23.4	28.1	25.8
Social Isolation				Self-Sacrifice			
Low	36.9	47.4	42.2	Low	18.0	9.6	13.8
Medium	17.1	11.4	14.2	Medium	10.8	9.6	10.2
High	12.6	12.3	12.4	High	21.6	14.0	17.8
Very High	33.3	28.9	31.1	Very High	49.5	66.7	58.2
Defectiveness				Emotional Inhibition			
Low	45.0	42.1	43.6	Low	40.5	38.6	39.6
Medium	20.7	18.4	19.6	Medium	15.3	22.8	19.1
High	10.8	10.5	10.7	High	22.5	18.4	20.4
Very High	23.4	28.9	26.2	Very High	21.6	20.2	20.9
Failure				Unrelenting Standards			
Low	59.5	49.1	54.2	Low	20.7	15.8	18.2
Medium	16.2	14.0	15.1	Medium	14.4	16.7	15.6
High	8.1	12.3	10.2	High	19.8	18.4	19.1
Very High	16.2	24.6	20.4	Very High	45.0	49.1	47.1
Dependence				Approval Seeking			
Low	55.0	56.1	55.6	Low	31.5	36.8	34.2
Medium	13.5	15.8	14.7	Medium	19.8	14.0	16.9
High	10.8	12.3	11.6	High	23.4	21.1	22.2
Very High	20.7	15.8	18.2	Very High	25.2	28.1	26.7
Vulnerability				Negativity/Pessimism			
Low	44.1	41.2	42.7	Low	31.5	31.6	31.6
Medium	22.5	18.4	20.4	Medium	20.7	22.8	21.8
High	11.7	22.8	17.3	High	15.3	14.0	14.7
Very High	21.6	17.5	19.6	Very High	32.4	31.6	32.0
Enmeshment				Punitiveness			
Low	64.0	64.9	64.4	Low	27.9	24.6	26.2
Medium	18.0	10.5	14.2	Medium	28.8	27.2	28.0
High	11.7	7.9	9.8	High	17.1	16.7	16.9
Very High	6.3	16.7	11.6	Very High	26.1	31.6	28.9

Differences between Men and Women's EMSs

Welch's corrected F ratio (Welch, 1951) was applied for all comparisons as homogeneity of variance was violated for the abandonment, defectiveness, failure, enmeshment and insufficient self-control. To control for familywise error, alpha was adjusted based on the five Schema Domains ($0.5/5 = .01$). Accordingly, alpha was set at $\alpha = .01$.

Table 5.

Means, Standard Deviations, Analysis of Variance (ANOVA) results and Effect Sizes for Men and Women's 18 Early Maladaptive Schemas - Young's Schema Questionnaire – Long Form (YSQ-L3).

Early Maladaptive Schemas	Men		Women		d	F	p
	M	SD	M	SD			
Emotional Deprivation	15.55	16.78	20.96	17.39	.32	5.65	.018
Abandonment	26.16	20.42	28.94	24.63	.12	0.85	.358
Mistrust/Abuse	28.44	23.83	28.71	26.28	.01	0.01	.936
Social Isolation	19.94	17.66	19.06	18.96	.05	0.13	.720
Defectiveness	21.67	22.13	25.48	25.38	.16	1.44	.230
Failure	11.72	15.27	16.22	17.38	.28	4.25	.040
Dependence	19.07	21.36	18.56	22.06	.02	0.03	.860
Vulnerability	15.82	15.62	16.25	16.36	.03	0.04	.839
Enmeshment	8.79	12.46	11.68	15.58	.20	2.36	.125
Entitlement	16.93	14.53	13.98	15.71	.19	2.13	.146
Insufficient Self-Control	35.68	21.31	36.03	25.04	.02	0.01	.912
Subjugation	16.81	15.10	19.95	16.70	.20	2.18	.141
Self-Sacrifice	42.14	26.35	53.55	27.58	.42	10.06	.002*
Emotional Inhibition	16.66	14.11	16.36	14.58	.02	0.02	.876
Unrelenting Standards	37.91	24.93	39.95	25.63	.08	0.37	.546
Approval Seeking	26.63	21.08	26.04	20.59	.03	0.05	.833
Negativity/Pessimism	21.12	17.96	21.22	18.11	.01	0.00	.966
Punitiveness	27.51	21.99	27.44	20.59	.00	0.00	.979

Note: d = Cohen's d .

Alpha set at * $p < .01$.

Items in boldface are significant at $p < .05$.

A significant difference between men and women was found for the self-sacrifice EMS, with women scoring significantly higher than men. Significant gender differences between men and women were not found for the following EMSs: emotional deprivation,

abandonment, mistrust/abuse, social isolation, defectiveness, failure, dependence, enmeshment, insufficient self-control, subjugation or approval seeking. No significant differences between men and women were found for the remaining six EMSs (vulnerability, entitlement, emotional inhibition, unrelenting standards, negativity/pessimism and punitiveness). If using an unadjusted alpha level for each comparison (i.e., $\alpha = .05$) the gender differences on the EMSs of emotional deprivation and failure would also have been considered significant. A small to medium effect size was found for entitlement, subjugation, enmeshment, failure, emotional deprivation and self-sacrifice (Table 5).

Discussion

The present study compared EMS scores between men and women with alcohol dependency in an Australian adult clinical population. To date, only one study has been conducted specifically on gender differences in EMSs in an alcohol dependent population (Shorey et al., 2012a). Consistent with Shorey et al.'s, (2012a) research results revealed that women scored significantly higher than men on the EMS of self-sacrifice. That is, women presented with an elevated self-sacrifice EMS score which indicates women have a greater tendency to excessively focus on or put others needs at the expense of their own emotional needs (Hawke & Provencher, 2012; Shorey et al., 2012a; Shorey, Anderson & Stuart, 2012c).

Contrary to expectation women did not score significantly higher than men on the EMSs of emotional deprivation, abandonment, mistrust/abuse, social isolation, defectiveness, failure, dependence, enmeshment, insufficient self-control, subjugation or approval seeking. There were no significant gender differences found for the remaining six EMSs (vulnerability, entitlement, emotional inhibition, unrelenting standards, negativity/pessimism, and punitiveness). Effect sizes for both studies were in the small to medium range. Therefore, the hypothesis that women would report significantly elevated levels of EMSs compared to men for emotional deprivation, abandonment, mistrust/abuse, social isolation, defectiveness,

failure, dependence, enmeshment, insufficient self-control, subjugation, self-sacrifice or approval seeking was only partially supported.

Elevated mean scores for both men and women, across all 18 EMSs were observed in the current study compared to the EMS mean scores found by Shorey et al., (2012a) (see Appendix F). Both studies found that men and women presented with similar levels of EMSs with the highest mean scores for both genders including self-sacrifice, unrelenting standards and insufficient self-control, respectively. These results suggest that there is an association between alcohol dependency and elevated levels of EMSs especially for the EMSs of self-sacrifice, unrelenting standards and insufficient self-control.

Results are further reflected in the clinical interpretation scores where men and women in the current study had larger percentages in the very high range for every EMS than the clinical interpretation scores found by Shorey et al., (2012a). In the current study women endorsed self-sacrifice, unrelenting standards, insufficient self-control and emotional deprivation where men endorsed self-sacrifice, unrelenting standards, insufficient self-control and social isolation the most frequently as very high. Shorey et al.'s, (2012a) study found that women scored self-sacrifice, unrelenting standards, insufficient self-control and abandonment and men scored self-sacrifice, unrelenting standards, insufficient self-control and punitiveness very high most often. Interestingly, both genders in both studies endorsed three of the same EMSs self-sacrifice, unrelenting standards and insufficient self-control most often as very high. Shorey et al., (2012a) found that one in ten individuals presented with high or very high for all EMS clinical interpretations whereas the results from the current study found nearly one in five individuals endorsed high or very high for all EMS clinical interpretations.

Despite the large number of significant gender differences found by Shorey et al., (2012a) results from the present study found that the only difference between men and women's EMSs were for self-sacrifice. Self-sacrifice epitomises a disproportionate focus on

voluntarily meeting the needs of others whilst denying one's own needs, wants or desires (Young et al., 2003). Individuals presenting with a self-sacrifice EMS often have a natural empathic predisposition as they dislike others feeling pain, feel morally obligated to help others, to preserve relationships with those they discern as being disadvantaged and to avoid feelings of guilt (Rafaeli et al., 2010). The EMS of self-sacrifice often develop when parents/caregivers were weak-willed, immature, dependent, needy and of poor physical or mental health (Young et al., 2003). Children of such parents often assume the parental role from an early age and develop a perceived sense of over-responsibility in helping others. The constant care of others can result in a lack of emotional fulfilment, exploitation by others, psychosomatic complaints and lead to feelings of anger or resentment (Young et al., 2003).

The exact aetiology behind why women often endorse higher levels of the self-sacrifice EMS is unknown. It has been suggested that it may be because women are more likely to present with psychological disorders such as depression, anxiety, PTSD, eating disorders and bipolar than men (American Psychiatric Association [APA] 2013). Women with psychological disorders could be predisposed in the development of problematic EMSs such as self-sacrifice (Young et al., 2003). Strong cultural and religious ideals often place a strong emphasis on women helping others as charitable, unselfish behaviour which is generally held in high regard (Young et al., 2003). Therefore, it is possible that women are expected or feel morally obligated to take on the role of caregiver. Altruistic behaviour such as caregiving could promote a sense of pride and relationships with others and also be a way of avoiding confrontation or retaliation (Young et al., 2003). The reason men may present with lower levels of the EMS self-sacrifice than women is that traditionally men have been expected to provide for the family, spend more time in a work place environment and less time in the family home or caregiving.

In order to cope with a lack of emotional fulfilment, exploitation by others, psychosomatic complaints and feelings of anger or resentment women with a self-sacrifice EMS may employ avoidant strategies such as alcohol or drug use as a way of blocking out stress, feelings and emotions (Rafaeli et al., 2010). EMS activation and avoidance coping styles (i.e., alcohol abuse) of the self-sacrifice EMS are highly susceptible to being triggered especially when women are already involved in substance abusing or maladaptive relationship (Ball, 2007a). Several studies demonstrate that avoidant coping strategies are linked with increased alcohol consumption (Brotchie et al., 2007; Ball, 2007a; Ball & Young, 2000; Rafaeli et al., 2010; Young et al., 2003).

Worth noting is the lack of significant differences that were found in the current study. Shorey et al., (2012a) found an additional 13 EMSs significantly different between men and women including emotional deprivation, abandonment, mistrust/abuse, social isolation, defectiveness, failure, dependence, vulnerability, enmeshment, insufficient self-control, subjugation, approval seeking and negativity/pessimism. Type I error was not controlled for in the study conducted by Shorey et al., (2012a) and therefore the EMSs of vulnerability and negativity/pessimism were found to be statistically significant with an alpha of $\alpha = .05$. In the current study both men and women presented with almost identical levels for the EMSs of vulnerability and negativity/pessimism. Shorey et al., (2012a) found statistical significance of $p = .01$ for mistrust/abuse and insufficient self-control. Where again, in the current study both men and women endorsed similar levels for the EMSs of mistrust/abuse and insufficient self-control.

If the traditional alpha level had been applied as in Shorey et al.'s, (2012a) study then emotional deprivation and failure EMSs would have been considered to be significant in the current study. However, to minimise the possibility of a Type I error (rejecting the null hypothesis when it is likely to be true - interpreting a meaningful difference when there isn't

one) alpha was set at a lower threshold ($\alpha = .01$) for the current study and therefore significance was not found for the emotional deprivation and failure EMSs. By controlling for a Type I error this increases the chance of producing a Type II error (retaining the null hypothesis when it is unlikely to be true - not interpreting a meaningful difference when there is one). Shorey et al.'s, (2012a) study was overpowered as it had a larger sample size, used a traditional alpha value of $\alpha = .05$ and thus vulnerable to Type I error. By contrast, the current study had a smaller sample size and stricter statistical control making it more difficult to achieve statistical significance and thus vulnerable to Type II error. In a more recent study looking at EMSs in alcohol and opioid-dependent women Shorey et al., (2013c) acknowledged that future research should control for Type I errors to increase the power of statistical testing.

According to Young et al., (2003) the self-sacrifice EMS is almost invariably accompanied by an emotional deprivation EMS. This is due to the fact that those with a self-sacrifice EMS focus on meeting the needs of others whilst at the same time their own individual needs are not met (Rafaeli et al., 2010). Women in the current study presented with notably higher levels of emotional deprivation than men. Emotional deprivation is the belief that one's needs for security, protection, nurturance, love, acceptance and empathy will not be met in a predictable manner. Although, again not significant the failure EMS levels were higher for women than men in the current study. Failure is the conviction that one will never be capable of performing as well as others. It often restricts one's ability to function independently, survive or be successful without help from others (Young et al., 2003). It is possible that women with a failure EMS combined with a self-sacrifice EMS may be capable of achieving but as they are always helping others may not have been able to apply themselves or had the time to achieve. The failure EMS is also associated with an avoidance

coping style, including substance abuse which may have interfered with the ability to achieve (Young et al., 2003).

Several EMSs were found to be greater for women than men in the study conducted by Shorey et al., (2012a) but these differences were not found to be as extensive in the current study. Noteworthy, is the fact that the means in the current study, especially for men, were elevated for every EMS in comparison to results found by Shorey et al., (2012a) (see Appendix F). In particular the mean scores for abandonment, mistrust/abuse, social isolation, defectiveness, dependence, insufficient self-control, subjugation and approval seeking were a lot higher for men in the current study than those found by Shorey et al., (2012a). Although the pattern of means for women were comparative with those of Shorey et al., (2012a) the mean scores for defectiveness, failure and unrelenting standards were considerably higher in the current study for women. These results suggest that the lack of significant gender differences in the current study is because the Australian sample of men present with a higher endorsement of EMSs in general. Although significant differences were not found between men and women's EMS levels both men and women endorsed higher levels of EMSs than those found by Shorey et al., (2012a).

One potential explanation for men in the present study endorsing higher EMSs scores is that Australians are amongst the highest consumers of alcohol worldwide (top 10%) (WHO, 2014). Traditionally men in Australia consume more alcohol and are twice as likely as women to surpass the lifetime risk guidelines for alcohol use (WHO, 2015). Additionally, Western Australian adults are more likely to exceed the lifetime risk guidelines for alcohol consumption than adults from any other state in Australia (ABS, 2013). A number of studies have shown evidence for a relationship between alcohol dependency and a high endorsement of EMSs (Ball & Cecero, 2001; Brotchie et al., 2004; Shorey et al., 2012a). Australia has a "drinking culture" and individuals in Australia may not present for medical assistance until

their alcohol dependence has reached a critical stage. Additionally, males with a perpetual cycle of alcohol use and EMS reinforcement may not present for treatment until EMSs have become considerably elevated. High levels of alcohol consumption are often employed as a coping mechanism to avoid EMSs from being activated and the intense emotions and physiological responses that often accompany EMSs (Rafaeli et al., 2010; Young et al., 2003).

External factors can also impact on the differences between men and women's levels of alcohol consumption. Previous research indicates that gender differences and harmful levels of alcohol consumption are influenced by socio-economic status, relationship status, psychiatric comorbidity, family history and childhood maltreatment (Fenton et al., 2013; French et al., 2014; Khan et al., 2013; Kienast, et al., 2014; Shorey et al., 2012a, 2012b). Studies have shown that higher socio-economic status is positively associated with increased alcohol consumption (French et al., 2014; Grittner et al., 2012). Moreover, the price of alcohol in Australia is expensive compared to other countries with Australia being ranked as the sixth most expensive country in the world (WHO, 2010). The current study was conducted at a private psychiatric hospital and the majority of participants came from areas of high socio-economic advantage. The fact that participants may have higher than average levels of income could indicate that alcohol consumption is a more common coping strategy of EMSs for individuals that can afford alcohol. As Shorey et al., (2012a) did not test for socio-economic status amongst his participants it is unclear how the characteristics of the two samples compared on this feature.

It is also possible that the small number of men who were married (only 32 men) in the current study may have impacted on results. Marital status, especially for men is seen as a protective factor against high levels of alcohol use and therefore marriage could lead to lower EMS levels (Elliott, 2013; French et al., 2014; Walitzer & Dearing, 2006). Almost half of the participants in Shorey et al.'s, (2012a) study were married and almost three quarters of his

participants were men. Given that excessive alcohol consumption and elevated EMSs are common amongst those presenting with psychiatric comorbidity, family history of alcohol abuse and childhood maltreatment future screening would benefit from their inclusion (Fenton et al., 2013; Khan et al., 2013; Kienast et al., 2014).

The findings from the present study must be interpreted under the context of several limitations. Firstly, the sample was not necessarily representative of the general population as it was conducted at a private psychiatric hospital and a large percentage of participants populate areas of high socio-economic advantage. Higher socio-economic status has been positively associated with increased alcohol consumption (French et al., 2014; Grittner et al., 2012). Increased alcohol consumption has been associated with elevated levels of EMSs (Ball & Young, 2000; Young et al., 2003). Secondly, participants were not screened for co-morbid psychological disorders which may have impacted on results. Research has shown an association between depression, anxiety, personality disorders, PTSD, psychosomatic disorders and elevated levels of EMSs and substance dependency (Cockram et al., 2010; Kienast et al., 2014; Rafaeli et al., 2010; Shorey et al., 2014a; Young et al., 2003). Thirdly, participants were not screened for the length of their dependency, nor were there any evaluations conducted for the severity of alcohol use. Dependency duration and severity of alcohol consumption have been found to exacerbate psychological disorders and maladaptive behaviours (Ball, 2007a; Rafaeli et al., 2010; Young et al., 2003). It is also possible that length of dependency and severity of alcohol use may impact on men and women differently.

Contrary to Shorey et al.'s, (2012a) study widespread differences between men and women's EMSs levels were not found in the current study. Although the current study did find that EMSs were highly prevalent for both men and women seeking treatment for alcohol dependency. These results add support to the limited number of studies on EMSs in alcohol dependent populations (Ball, 2007a; Brochie et al., 2004; Roper et al., 2010; Shorey et al.,

2012a). Thus, as widespread gender differences were not found this is indicative that inter-gender Schema Group Therapy may be suitable especially in an Australian context.

ST proposes that focusing on EMSs and coping styles can have a substantial impact on a broad range of maladaptive behaviours by interfering with the behavioural and interpersonal sequence of events that facilitates the maintenance of EMSs and alcohol dependency (Ball & Young, 2000; Young et al., 2003). Both the current study and Shorey et al.'s, (2012a) study found that the EMS of self-sacrifice were much higher in women than men and that the effects for the emotional deprivation EMS were strong across both studies. Therefore clinicians should be aware that the EMSs of self-sacrifice and emotional deprivation often accompany each other and that they are consistently elevated in women across cultural contexts (Young et al., 2003). The current findings also indicate that self-sacrifice and emotional deprivation EMSs are highly prevalent in women seeking treatment for substance dependency.

The current study was the first to be conducted in Australia, accessed a large clinical sample, applied strict statistical control and employed a comprehensive assessment of EMSs. Despite any limitations the findings from the present study provides important information on the differences between men and women's EMSs in an Australian adult alcohol dependent clinical sample. Further research should be conducted in Australia on a more heterogeneous population that includes individuals from different socio-economic backgrounds, cultures and both private and public hospital settings in order to provide more representative information about the differences between men and women's EMSs in an alcohol dependent population. Future research may also benefit from additional screening on the severity of participants alcohol use and length of dependency to assess whether there is an association between EMSs and levels of alcohol use and duration of dependency. Additionally, demographic variables such as age, marital status and socio-economic information should be assessed to see if these

attributes provide any protection or vulnerabilities with respect to the levels of EMSs and alcohol use.

In conclusion, this is the first study in Australia to examine the differences between men and women's EMSs in an Australian adult alcohol dependent clinical sample. The only significant gender difference in the current study was for the EMS of self-sacrifice where women scored significantly higher than men. Contrary to our hypothesis, and the results of Shorey et al., (2012a) there were no other significant differences found. Mean scores for both men and women were higher for all EMSs than those found in Shorey et al.'s, (2012a) study. Shorey et al.'s, (2012a) research was conducted in the United States and was the first and only study worldwide to find significant gender differences in 14 out of 18 EMSs in alcohol dependent adults. Gender differences in the current study were not found for the majority of EMSs as men in the Australian sample presented with a lot higher levels of EMSs in general.

As EMSs have been found to be highly prevalent in alcohol dependent populations and as Australians are amongst the highest consumers of alcohol worldwide further investigation into EMS profiles related to alcohol dependency in Australia are needed. Replication of the current study is warranted and the use of statistical controls (such as controlling for Type I error and using the full contemporary version of the YSQ-L3) should be considered when collecting and analysing EMS data. As EMSs scores were mostly similar for both men and women but highly represented in the current sample, the results provide further support for the suitability of inter-gender Schema Group Therapy as an intervention to assist those with alcohol dependency in Australia.

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Appendix A: Example Questions – Young Schema Questionnaire (YSQ-L3)

YSQ-L3**M-127**

Jeffrey Young, Ph.D. & Gary Brown, Ph.D.

Name _____ Date _____

INSTRUCTIONS:

Listed below are statements that someone might use to describe him or herself. Please read each statement and decide how well it describes you. When you are not sure, base your answer on what you emotionally **feel**, not on what you **think** to be true.

If you desire, reword the statement so that it would be *even more accurate* in describing you (but do not change the basic meaning of the question).

Then choose the **highest rating from 1 to 6** that describes you (including your revisions), and write the number on the line before each statement.

RATING SCALE:**1** = Completely untrue of me**4** = Moderately true of me**2** = Mostly untrue of me**5** = Mostly true of me**3** = Slightly more true than untrue**6** = Describes me perfectly**EXAMPLE:**

A. 4 I worry that people ^{I care about} will not like me.

1. _____ People have not been there to meet my emotional needs.

2. _____ I haven't gotten enough love and attention.

3. _____ For the most part, I haven't had someone to depend on for advice and emotional support.

4. _____ Most of the time, I haven't had someone to nurture me, share him/herself with me, or care deeply about everything that happens to me.

5. _____ For much of my life, I haven't had someone who wanted to get close to me and spend a lot of time with me.

6. _____ In general, people have not been there to give me warmth, holding, and affection.

7. _____ For much of my life, I haven't felt that I am special to someone.

8. _____ For the most part, I have not had someone who really listens to me, understands me, or is tuned into my true needs and feelings.

9. _____ I have rarely had a strong person to give me sound advice or direction when I'm not sure what to do.

*ed

10. _____ I worry that the people I love will die soon, even though there is little medical reason to support my concern.

11. _____ I find myself clinging to people I'm close to, because I'm afraid they'll leave me.

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Appendix B: YSQ-L3 Scoring Sheet

M137

**Scoring Sheet for
Young Schema Questionnaire
L3**

Schema Name (Shortened)	YSQ Code	YSQ Item Numbers (Total Items)	Number of Statements You Rated:			Your Total for this Schema (Max. Possible)	Is This One of Your Schemas?
			4	5	6		

SAMPLE	xx	300-309 (10)	1	2	2	26 (60)	<i>High</i>
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Emotional Deprivation	ed	1-9 (9)				(54)	
Abandonment	ab	10-26 (17)				(102)	
Mistrust/Abuse	ma	27-43 (17)				(102)	
Social Isolation	si	44-53 (10)				(60)	
Defectiveness	ds	54-68 (15)				(90)	
Failure	fa	69-77 (9)				(54)	
Dependence	di	78-92 (15)				(90)	
Vulnerability	vu	93-104 (12)				(72)	
Enmeshment	eu	105-115 (11)				(66)	
Subjugation	sb	116-125 (10)				(60)	
Self-Sacrifice	ss	126-142 (17)				(102)	
Emotional Inhibition	ei	143-151 (9)				(54)	
Unrelenting Standards	us	152-167 (16)				(96)	
Entitlement	et	168-178 (11)				(66)	
Insuf. Self-Control	is	179-193 (15)				(90)	
Approval-Seeking	as	194-207 (14)				(84)	
Negativity/Pessimism	np	208-218 (11)				(66)	
Punitiveness	pu	219-232 (14)				(84)	

Appendix C: YSQ-L3 Interpretation Grid

M137

**Interpretation Grid for
Young Schema Questionnaire – L3**

Schema Name (Shortened)	Your Score On This Schema	Graph Your Score On This Schema			
		Low	Medium	High	Very High

SAMPLE	26	0-8	9-18	✓ 19-30	31-60
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Emotional Deprivation		0 - 8	9 - 18	19 - 30	31 - 54
Abandonment		0 - 12	13 - 25	26 - 39	40 - 102
Mistrust/Abuse		0 - 12	13 - 25	26 - 39	40 - 102
Social Isolation		0 - 8	9 - 18	19 - 30	31 - 60
Defectiveness		0 - 12	13 - 25	26 - 39	40 - 90
Failure		0 - 8	9 - 18	19 - 30	31 - 54
Dependence		0 - 12	13 - 25	26 - 39	40 - 90
Vulnerability		0 - 8	9 - 18	19 - 30	31 - 72
Enmeshment		0 - 8	9 - 18	19 - 30	31 - 66
Subjugation		0 - 8	9 - 18	19 - 30	31 - 60
Self-Sacrifice		0 - 12	13 - 25	26 - 39	40 - 102
Emotional Inhibition		0 - 8	9 - 18	19 - 30	31 - 54
Unrelenting Standards		0 - 12	13 - 25	26 - 39	40 - 96
Entitlement		0 - 8	9 - 18	19 - 30	31 - 66
Insuf. Self-Control		0 - 12	13 - 25	26 - 39	40 - 90
Approval-Seeking		0 - 12	13 - 25	26 - 39	40 - 84
Negativity/Pessimism		0 - 8	9 - 18	19 - 30	31 - 66
Punitiveness		0 - 12	13 - 25	26 - 39	40 - 84

Appendix D: Letter to Participants

Gender Differences in Schemas

JOONDALUP CAMPUS

270 Joondalup Drive,
Joondalup
Western Australia 6027
Telephone 134 328
Facsimile: (08) 9300 1257
CRICOS 00279B

ABN 54 361 485 361

My name is Diana Janson and I am conducting research on differences in Schemas as measured by one of the questionnaires (the Young Schema Questionnaire version 3 or YSQ-L3) that you will be asked to complete as part of your participation in the group run by Dr Robert Segal. Schemas are mental concepts that help individuals organise and make sense of events as they happen. Schemas are formed through information gained through life experiences. This research project is being undertaken as part of the requirements for my Honours degree in Psychology at Edith Cowan University. This research project has been approved by the ECU Human Research Committee and Hollywood's Research Ethics Committee. It is hoped that findings from this research project will provide new information on schemas and facilitate improved treatment and prevention programs.

Dr Robert Segal requires completion of this questionnaire for clinical purposes. I am also asking that you allow Hollywood Private Hospital to release completed questionnaires (YSQ-L3) and demographic information (e.g., gender, age, postcode, country of birth and marital status) for inclusion in the proposed research. The YSQ-L3 is expected to take you between 30-40 minutes to complete.

Participation is entirely your choice. Whether you participate or not, all the services you receive at this hospital will continue and nothing will change. Should you agree to participate you are free to withdraw from further participation at any time - without explanation or penalty. Thus, I am asking you that you give me permission to use your responses to the YSQ-L3 for the current research project and any future research I may conduct.

Whilst completing the YSQ-L3 should you at any time feel distressed please alert Dr Robert Segal immediately as he will be available throughout completion of the YSQ-L3 supervising Diana Janson in the distribution of the questionnaire.

All information provided for this research project will be non-identifiable (that is you will not be personally identified) so that confidentiality and privacy of all participants will be maintained. Diana Janson and Dr Craig Harms (ECU Supervisor) will only have access to non-identifiable information. Dr Robert Segal will keep all original confidential information stored in a locked filing cabinet in his office and on his computer. Data will be stored for up to ten years and then it will be destroyed.

Results of this research study will be made known in reports, conferences and publications. As all information for this research project will be non-identifiable results will not include any information that may identify individual participants. A summary of the research outcome can be obtained by either contacting the Chief Investigator or Dr Robert Segal in which case an email or letter summarising the results will be sent to participants.

Principal Investigator
Diana Janson
Edith Cowan University
Email:
djanson@our.ecu.edu.au
Ph: 0437 200 206

Supervisor
Dr Robert Segal
Hollywood Private Hospital
Email:
segal@ramsayhealth.com.au
Ph: (08) 9346 6825

Supervisor
Dr Craig Harms
Edith Cowan University
Email:
c.harms@ecu.edu.au
Ph: (08) 9304 5715

If you have any concerns or complaints about the research project and wish to talk to an independent person, you may contact:

Research Ethics Officer
Edith Cowan University
270 Joondalup Drive
JOONDALUP WA 6027
Ph: (08) 6304 2170
Email: research.ethics@ecu.edu.au

Appendix E: Consent Form

CONSENT FORM

Gender Differences in Schemas

By signing below I _____ (participants name) agree that I:

- Have been given a copy of as well as read and understood the information sheet about the study
- Am taking part in this research study voluntarily
- Understand that the information provided by Hollywood Hospital for the purposes of this research proposal will be non-identifiable before the researcher has access to any data
- Understand that participation in the research project will involve the completion of the Young Schema Questionnaire (YSQ-L3) (to be de-identified for the purposes of this research) and that Hollywood Hospital will provide demographic information about myself for the purpose of this research that will include information about my gender, age, postcode, country of birth and marital status.
- Understand that I am free to withdraw from further participation at any time, without explanation or penalty
- Have been given an opportunity to ask questions regarding the intended research and any questions have been answered to my satisfaction
- Am aware that if I have any additional questions that I may contact the research team
- You understand that responses to the Young Schema Questionnaire and non-identifiable demographic information may be used in future research projects.



JOONDALUP CAMPUS

270 Joondalup Drive,
Joondalup
Western Australia 6027
Telephone 134 328
Facsimile: (08) 9300 1257
CRICOS 00279B

ABN 54 361 485 361

Participant's Signature

Date

Principal Investigator

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Supervisor

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Appendix F: Differences in Means, Standard Deviations and Effect Sizes

Comparison of the Current Study and Shorey et al.'s (2012a) Study – Means, Standard Deviations and Effect Sizes

Early Maladaptive Schemas	Men Current Study		Men Shorey		Men Differences Between Studies		Women Current Study		Women Shorey		Women Differences Between Studies		Current Study Effect Sizes	Shorey Effect Sizes	Effect Size Diff
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>D</i>	<i>d</i>	<i>d</i>	<i>d</i>
Emotional Deprivation	15.55	16.78	9.8	13.2	5.75	3.58	20.96	17.39	14.5	15.1	6.46	2.29	.32	.33	-.01
Abandonment	26.16	20.42	18.1	22.3	8.06	-1.88	28.94	24.63	24.8	24.8	4.14	-0.17	.12	.28	-.16
Mistrust/Abuse	28.44	23.83	18.1	22.1	10.34	1.73	28.71	26.28	22.9	24.5	5.81	1.78	.01	.20	-.19
Social Isolation	19.94	17.66	8.8	13.6	11.14	4.26	19.06	18.96	13.4	16.4	5.66	2.56	.05	.30	-.25
Defectiveness	21.67	22.13	11.4	18.4	10.27	3.73	25.48	25.38	16.9	21.7	8.58	3.68	.16	.27	-.11
Failure	11.72	15.27	5.7	10.2	6.02	5.07	16.22	17.38	9.3	13.4	6.92	3.98	.28	.30	-.02
Dependence	19.07	21.36	9.1	15.1	9.97	6.26	18.56	22.06	13.8	19.4	4.76	2.66	.02	.27	-.25
Vulnerability	15.82	15.62	10.5	14.0	5.32	1.62	16.25	16.36	12.8	15.4	3.45	0.96	.03	.15	-.12
Enmeshment	8.79	12.46	6.1	10.9	2.69	1.56	11.68	15.58	10.9	15.3	0.78	0.28	.20	.36	-.16
Entitlement	16.93	14.53	11.4	14.0	5.53	0.53	13.98	15.71	10.1	11.9	3.88	3.81	.19	.10	.9
Insufficient Self-Control	35.68	21.31	23.9	20.7	11.78	0.61	36.03	25.04	29.4	21.4	6.63	3.64	.02	.26	-.24
Subjugation	16.81	15.10	8.4	12.1	8.41	3.00	19.95	16.70	14.6	15.4	5.35	1.30	.20	.44	-.24
Self-Sacrifice	42.14	26.35	37.6	25.7	4.54	0.65	53.55	27.58	46.9	29.8	6.65	-2.22	.42	.33	.09
Emotional Inhibition	16.66	14.11	12.0	13.8	4.66	0.31	16.36	14.58	11.8	12.7	4.56	1.88	.02	.02	.0
Unrelenting Standards	37.91	24.93	33.4	25.1	4.51	-0.17	39.95	25.63	32.3	23.9	7.65	1.73	.08	.04	.04
Approval Seeking	26.63	21.08	16.9	19.5	9.73	1.58	26.04	20.59	23.1	21.6	2.94	-1.01	.03	.30	-.27
Negativity/Pessimism	21.12	17.96	15.4	17.6	5.72	0.36	21.22	18.11	18.8	18.7	2.42	-0.59	.01	.18	-.17
Punitiveness	27.51	21.99	24.2	20.5	3.31	1.49	27.44	20.59	25.2	18.6	2.24	1.99	.00	.05	-.05

Note: d = Cohen's d.