

School of Psychology

**The Association Between Parenting, Attachment Formation and
Gender Role Orientation and its Impact on Accessing Support When in
Need**

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Declaration

“To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgement has been made. This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.’ (see *Rule 10: Degree of Doctor by Research and Rule 11: Degree of Master by Research, Section 11(d)(iii)*).”

Signature _____ Date _____

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Firstly I wish to honour a young man who inspired this work in the hope that one life may make a difference to others.

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Abstract

Attachment theory suggests that children develop internalized expectations of primary care givers that predict the availability of care and protection offered by parents (Bowlby, 1969; 1973; 1980). Parenting practice has been found to significantly impact on the development of internalised attachment schemas (Nickell, et al., 2002). Both one's attachment and conception of gender-role orientation, which define appropriate gender-based behaviour, have been found to correlate (Shaver, et al., 1996). Furthermore access to emotional support has been found to correlate with attachment (Fairchild & Finney, 2006) and gender-role orientation (Houle, et al., 2008). This study used data from a random community sample to explore the impact of recalled parenting experiences on attachment in romantic relationships, gender-role values and the development of emotional support networks. The randomised sample was also used to develop community norms for the Experiences in Close Relationships Questionnaire Revised (ECR-R; Fraley, Waller & Brennan, 2000). Results indicated the importance of paternal indifference and maternal over control in female attachment to romantic partners. Mental health symptoms differed depending on parenting practice experienced and the gender of the participant. Both romantic attachment and gender role orientation impacted on the nature and propensity to access emotional support. Finally, results supported the psychometric properties of the ECR-R.

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CHAPTER ONE

INTRODUCTION TO THE STUDY

Chapter Overview

“The emotional development of an infant starts at the beginning of his life. If we are to judge the way in which a human being deals with his fellow creatures, and see how he builds up his personality and life, we cannot afford to leave out what happens in the earliest years, months and even weeks and days of his life.”

(Winnicott, 1957, p 67).

The following chapter outlines a case study of a young man who tragically took his life and to whom this thesis is dedicated. The details of the young man’s life have been significantly altered to ensure anonymity of his family whilst still maintaining the clinical integrity of his story. His story will be used as a framework to integrate literature on parenting, attachment, gender role development and help-seeking behaviour. Finally a brief overview of chapters in the thesis will be presented.

As many parents will support, when looking into the eyes of their infant they can be left with a sense of wonder at not only the unique character that slowly emerges in the weeks and months that follow but also at the unknown potential that will emerge in the years ahead. They can also be struck by the awesome perceived responsibility, dedication and skills required to not only protect and provide for this fragile life but to structure experiences that will assist in nurturing and realising this child’s fullest potential and ultimate happiness.

This PhD is an exploration into the interplay of systemic variables within families that shape the development of interpersonal relationships, impacting on the

establishment of values and behaviour which significantly influence psychosocial health. Principally this research explores the differential impact of maternal and paternal parenting practice on individuals' ability to form intimate relationships. A number of key parenting variables will be measured including parental indifference, over control and abuse, exploring their impact on a number of key interpersonal variables including romantic attachment and gender role identity.

One aim of this research is to explore the enduring impact of early parent and child interactions on interpersonal processes within the context of romantic relationships and the extent these experiences also influence the development of values that define appropriate gender-based behaviour. This exploration will also set the foundation to explore an important aspect of interpersonal relationships, specifically the nature and propensity of an individual to access emotional support within their social ecology (including one's romantic partner, family friends and helping professionals).

Finally the research outlined in this thesis will aim to provide important psychometric data on a popular measure of romantic attachment using a randomised sample of the general population.

Many scientific journeys begin with an experience that arouses us to question and make sense of the world and our experience of it. The impetus for this work was the tragic suicide of an adolescent client named Adam, and the inevitable search a clinician makes into causes, correlates and reflections on clinical practice. The young man's name has been changed, as have many of his details, incorporating aspects of other similar cases of young homeless adults accessing a drug counselling

service. These changes were made to ensure anonymity whilst also attempting to remain true to Adam's narrative with an emphasis on clinically relevant details. Informed signed consent was provided for discussion of Adam's story with other professionals and for clinical supervision purposes at the commencement of treatment. Key areas in his clinical presentation are covered in the ensuing chapters with the hope that this will place a human face to a scientific exploration. The case will be used as a framework on which to integrate scientific literature, clinical practice and the research findings of this thesis. Equally importantly is the expectation that the results will make some small contribution to scientific literature and further scientific debate on clinical service delivery.

1.1 Adam from where it begins

Adam was born in a rural town in Australia. He was the youngest of four children with a sister three years older and two brothers, one five years older the other seven. His father was a blue-collar worker working in the transport industry, who often worked long hours and was absent from the family. Adam's mother initially was the full-time caregiver and then worked part-time as the children grew.

Adam described his father as a strong man who was not emotionally warm or very affectionate and who was primarily responsible for discipline in the home. His father held strong values concerning being a "real man", was strong in stature and took charge of the family and its activities.

Adam described his mother as warm and caring though he had only few recollections of her. He reported that his family often visited his grandparents who lived on a farm nearby where he would play and with whom he had a close

relationship. Adam reported doing well at preschool and early primary school where he was a popular student with a broad circle of friends. He reported that he initially enjoyed schoolwork, doing well in his studies and finding favour with a number of teachers.

He recalled that his parent's relationship was often conflictual with frequent arguments. He recalled nights where he was not able to sleep due to raised voices and at times the smashing of property. Adam reported seeing his father storm out the house and his mother often crying. The conflict between his parents often left him distressed.

On one occasion this tension and conflict between his parents culminated in the tragic death of Adam's mother. His mother and father had been arguing, resulting in his mother leaving the house highly distressed. Adam reported being in the lounge and watching his mother enter her car, back quickly out of the driveway and into the oncoming path of a goods truck. In the resulting accident, Adam witnessed his mother trapped in the burning vehicle from which his father was unable to rescue her.

In the intervening months, Adam's grandparents took care of the four children, supporting their daughter's husband. Adam reported that he felt helpless in being able to save his mum and blamed his father for her death. He said that this was the beginning of his problem behaviour at school and acting out at home. He reported that he would not do his school work and was disruptive in class, whilst at home he was compliant and withdrawn.

Twelve months following the death, Adam's father began a relationship with his wife's best friend, eventually deciding to move to the city, leaving the four children with their grandparents in the small country town. Adam's oldest brother left the family at this point, at first following his father to the city and then moving interstate at 15 years of age. Adam had infrequent contact with him over subsequent years with his brother often in prison or marginally employed.

In the ensuing couple of years following his mother death Adam was taken to see a number of counsellors whom he reported were "OK". In these times he would discuss his mother's death, his father's move to the capital city, his emotions and behaviour at home and school. Though he found these counsellors useful he was nevertheless dismissive of their impact and benefit. He had the belief that he could tie psychologists around his little finger by telling them what they wanted to know.

He recalled that periods of therapy were often brief and often forced upon him by well-meaning teachers. He had not been in therapy since primary school believing that therapy was ineffectual and that he didn't need to talk to counsellors. He stated that he preferred to deal with his own problems and talking to people was a sign of personal weakness.

The following four years were characterised by infrequent visits by Adam's father, his new wife and two stepchildren, and Adam's continued behaviour problems at school. During this time, Adam's siblings began truanting, became involved in school behaviour management programs due to antisocial behaviour and involvement in the juvenile justice system. Adam's grandparents increasingly found it difficult to manage Adam and his siblings' behaviour.

Adam's father and wife decided to combine the two families resulting in the three children moving from the country to the city. Adam reported that after the initial settling-in period, conflict occurred between his stepmother and his brother and sister. Both his older siblings, now in their teens, had begun using illicit substances, truanting school and stealing. This behaviour resulted in increased conflict in the house and the eventual demand that both leave.

Adam reported that his stepmother tended to favour her children and he believed that his father supported them over his own children. This resulted in Adam distancing himself emotionally from his father and developing a strong alignment with his sister and brother whom he idolised. Adam reported that his father used increasingly harsh discipline in an attempt to manage both Adam's and his siblings' behaviour with little success. With increasing conflict in the family, including between the father and stepmother, and Adam's offending behaviour, his grandparents decided to move to the city to provide support to their grandchildren and bought a home near the family.

At the time of referral, Adam was 18 years of age and had been expelled from high school for disruptive antisocial behaviour the year before. Although he was very popular with both students and staff due to his 'charming character' and intelligence, his drug use and antisocial behaviour could not be tolerated at the school. He was perceived as the leader whom other adolescents followed, having both a tough quality and a warm, engaging personality. Teachers had reported him to be highly intelligent and creative with the ability to complete his studies when he desired.

Twelve months prior to referral, Adam had been asked to leave his father's home due to his illicit drug use (cannabis and heroin) and the disruption to family life. This period of homelessness and increased instability further impacted on Adam's ability to maintain school engagement. His drug use had begun five years earlier, beginning with alcohol bingeing and cannabis use, then in the 12 months prior to referral progressing to heroin and prescription medications which he reported using two to three times a week. He stated that his sister had introduced him to heroin use through contacts she had with a local dealer. Soon Adam began selling drugs to maintain his drug habit. He had not been charged or convicted of any offences.

As a consequence, Adam began living on the streets with periods of marginal accommodation (living with multiple friends) and eventually residing in a youth homeless refuge. At the time of referral Adam had been living with his best friend and his mother for two months. One condition of this accommodation was to cease the use of heroin. At the time of first contact, Adam was completing home detoxification from heroin addiction under the supervision of a local medical practitioner. The practitioner had prescribed Adam with a number of medications to minimise withdrawal symptoms.

Adam's social ecology was generally made up of transitory friendships and distant or unreliable family relationships. Both his brothers were in prison for drug offences and burglary, whilst his sister was in hiding from drug dealers (whom she owed money) and her violent ex-partner. Adam also had a close friend called Nancy whom he had met on the streets. Nancy had been involved in prostitution and had a

two-year old daughter. Adam had taken on the responsibility of a friend and protector of both Nancy and her daughter, seeing her as a younger sister in need of care and protection due to both sharing many similar life experiences. He often worried for her safety and the safety of her daughter due to the violent romantic relationships she was often in and the nature of her work.

Adam also had a girlfriend (Sam) over the previous three years and with whom he felt emotionally close. Sam was completing the final year of high school education. Adam identified Sam as a strong emotional support, although this relationship often had periods of instability where Adam would end the relationship to go out with other young women. This strong relationship was a significant stabilizing influence for Adam at the time of referral. This relationship both motivated Adam toward addressing his drug use and life issues whilst providing significant emotional support. Finally, Adam's grandparents, whom he frequently visited, provided both emotional and instrumental support to him.

Adam reported having suicidal ideations during his adolescence and had made plans to end his life a number of times. He had never acted on these for a variety of reasons including his relationship with his girlfriend, grandparents and most importantly his relationship with Nancy and her daughter. He viewed taking his life as 'wimpy' and as a cop out.

He reported having low moods at times but was not assessed as depressed by the medical practitioner managing his withdrawal regime and had not been prescribed medication for his low mood. Adam began attending therapy for support in stopping his drug use at the advice of his friend's mother. He identified that his

drug use affected his romantic relationship, and had threatened his accommodation. He also expressed the desire not to repeat the choices his brothers and sister had made.

In the course of a five-month period of weekly contact, Adam successfully ended his use of illicit substances and strengthened his relationship with his family, notably his grandparents and partner, resulting in his moving to his grandparent's residence to live. With increasing therapeutic rapport Adam shared poetry he had written and pieces of art which often explored themes of longing and of love for his mother to whom he felt he had not said goodbye and also felt responsibility for her death.

During the period of therapy, Adam had attempted to re-establish contact with his father which was unsuccessful due to ongoing conflict concerning past incidents where Adam was blamed for the theft of family property. Adam expressed anger at what he believed was injustice at his father's accusation implicating him in the theft. He refused to implicate his brother, whom he revealed was guilty of the theft, due to family loyalty. Adam's perception was that his father was aligned with his new partner and that she wanted nothing to do with his side of the family.

In the course of therapy Adam had begun to resolve grief issues, strengthen his emotional support network, developed a future focus in saving for a car and began work at a local fast food restaurant and began developing adaptive coping strategies.

Over one weekend Adam had a suicidal crisis resulting in hospitalization. He reported that he feared that Nancy was dead due to his inability to contact her. Prior to this time Adam had been in regular contact with Nancy though she was highly transient and often in crisis. This resulted in frequent anxiety and fear for her safety and the safety of her daughter. During this crisis, Adam had become intoxicated and expressed strong suicidal ideations. Adam's girlfriend had taken him to the local hospital emergency department after which he was hospitalised. Adam was diagnosed with depression and his mood stabilized with medication. He was released from hospital and referred to community psychiatric care. In the following weeks Adams drug use increased with frequent use of cannabis, he became increasingly withdrawn from friends, family and his partner and progressively increased cancellation of sessions (both with the therapist and the community psychiatric team). He reported that he believed that Nancy had been killed by either her ex-partner – a drug dealer – or her pimp.

Concern for Adam's health was expressed by his grandparents and his partner as he would not return home for a number of days at a time, had become non-communicative, appeared low in mood and had been frequently intoxicated on alcohol or cannabis. In the week prior to his death Adam could not be found. His partner reported that he continued to fear for Nancy's safety and believed she was dead. One morning he returned home, left a brief note to his grandparents and called his partner to say "hello" and took his life.

The funeral was attended by many hundreds of young people who had come to know Adam through high school or had met him on the streets. Interestingly, many commented that he was their best friend yet many had only known him briefly

and none had known the level of his distress. The funeral was also an opportunity for Adam's family to reunite. The tension between Adam's family members was still evident both at the funeral and in subsequent discussions with Adam's siblings, father and grandparents. Both Adam's brother and father responded to the loss with stoicism and in his father's case, anger and blame toward Adam's older siblings whom he held responsible. Nancy also appeared at the funeral with her daughter. She had been in hiding from her ex-partner after a brief reunion and subsequent violent incident.

1.2 Adam's themes

There are a number of prominent psychological features in Adam's case history including recurrent symptoms of depression, suicide ideation, drug addiction and unresolved loss and grief over his mother's death.

These psychological health features also co-occur with a number of social functioning factors including his estrangement from some of his family, poor attainment of education outcomes, unemployment, homelessness and early onset of behavioural problems and anti-social behaviour both at school and in the community. In the case of Adam's siblings this resulted in both early juvenile justice involvement and consequent adult incarceration.

Interwoven through these indicators of psychosocial functioning is a range of interpersonal relationships operating in Adam's social ecology which evidence varying levels of emotional connection. Many of Adam's relationships can be characterised by insecurity, conflict, loss, rejection, alienation and abandonment.

Adam's significant relationships with his friend Nancy and his partner are characterised by instability and unpredictability. Adam's emotional connection to both women is often insecure with Adam experiencing heightened anxiety over the security of both relationships. Though Adam's romantic relationship extends over a number of years, the relationship is punctuated with break-ups, infidelities and reunions.

Relationships within Adam's ecology also evidence the provision of care, emotional and instrumental support at different junctures both within the immediate ecology and within Adam's broader social ecology. The access to this private and professional support by Adam is often inconsistent and eventually characterised by withdrawal and ambivalence, especially at times when his need and emotional distress was the greatest.

Implicit within Adam's narrative are values that govern his interpersonal relationships. These values minimised emotional vulnerability and expression whilst also minimising the need to access emotional support from family, friends and loved ones or from professional supports available in the local community. When Adam's psychological symptoms, drug use and suicidal ideations are combined with his insecure interpersonal relationships and heightened anxiety, clear markers for a borderline personality disorder are evident.

Adam also held strong values that promoted personal independence and self-reliance. Clearly evident in Adam's narrative is the convergence of a number of areas, which broadly include Adam's experience of family life and parenting in childhood and adolescence, his experience of traumatising events that appear

unresolved and Adam's values that determine appropriate interpersonal behaviour for a young adult male.

A central focus of this thesis is to explore the factors that significantly impact on an individual's ability to development adaptive interpersonal relationships with a primary focus on the relationships of parenting experiences, romantic relationships and values that determine appropriate gender-based behaviour.

The foundational work of Bowlby (1969; 1973; 1980) and attachment theory provides a framework from where we can understand the progressive development of an individual's ability to leave the security of home to explore and interact with the world, develop the social skills and knowledge required to build functional relationships and inter-relate with varying levels of society. More specifically, a child develops mental representations or internal working models of themselves and others from their interactions with caregivers over time. These interactions set a foundation from which the child develops two perceptions: one that the self is worthy of care, and secondly, the perception that significant others are able to provide protection and care when the child is in need (Bowlby).

A second rich body of literature with relevance deals with aspects of parenting practice and focuses on the interactions between family members that are thought to impact on psychosocial wellbeing (Baumrind, 1991; Maccoby and Martin, 1983; Minuchin, 1974). According to this conceptualisation, different parenting styles arise according to the levels of emotional warmth and control evidenced in parenting practice.

Parenting practice and qualities can be understood as a complex pattern of interpersonal interactions that are dynamic in nature. These are viewed in the context of a range of subsystems or dyadic relationships that constitute parts of an entire ecology (i.e. the parent subsystem, father-child subsystem and sibling subsystem) (Minuchin). Family system theorists suggest that individual behaviour cannot be truly understood separate from the interactions of these subsystems. Disruptions to these subsystems or maladaptive interactions result in poor family functioning and psychosocial outcomes (Minuchin). The interaction of these subsystems is clearly seen in Adam's presentation.

Though the family system is understood as the principal setting in which individuals develop, families are imbedded in broader systems that play a significant function in socialization. Moreover, the processes operating in different systems are not independent of each other. At a broader level Adam and his family are imbedded within a local and regional context that influences the transmission of values, define appropriate behaviour and provide emotional support (see figure 1).

Attachment theorists and parenting researchers both focus on the nature of interpersonal relationships with a refined focus on the caregiver and child relationship, then more broadly to the family ecology in which individuals interact, live and learn.

A third body of literature has focused on sociological determinants of behaviour where social values determine appropriate male and female behaviour. It is within this complex dynamic interaction that values concerning appropriate masculine and feminine gender behaviour are emphasised, dismissed and integrated,

drawing on multiple gender values within the broader community (Bem, 1984; Gergen, 1985; Hofstede, 1998). These gender roles impact on both psychological health and access to emotional supports (Zamarripa, Wampold, & Gregory, 2003; Steiner-Pappalardo & Gurung, 2002).

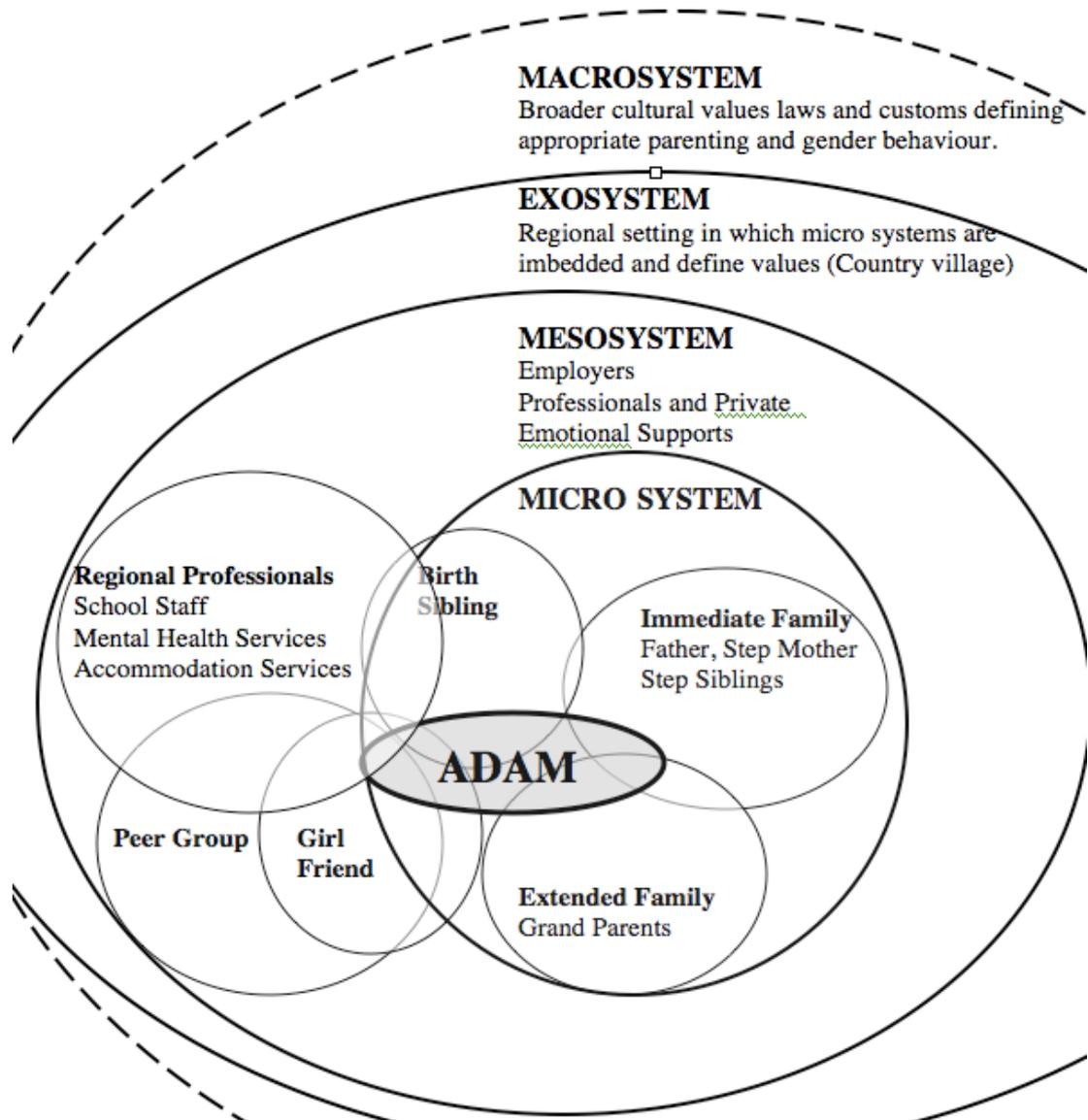


Figure 1. Adam's systemic context.

Together these bodies of literature provide insight into key themes present in Adam's case. Throughout Adam's narrative there are clear indicators of family functioning levels including the presence of family conflict and paternal indifference

and rejection. The lack of resolution around Adam's loss of his mother is evidenced both in Adam's disclosures during therapy and in his anxiety and fear for his friend Nancy.

Adam's clinical presentation is set within the context of a number of strong social values to which he adhered and which defined what he regarded as appropriate interpersonal behaviour for a male. These values determined his unwillingness to disclose emotional vulnerability, less propensity to access emotional support from others and his withdrawal from friends and family leading up to his death. These strong masculine values were echoed in both his father's and brother's stoic presentation following Adam's death.

Adam's narrative provides an opportunity to not only explore the interaction of parenting, attachment and gender role values but also the opportunity to explore the nature of help-seeking attitudes that may arise from the interaction of these factors.

1.3 Thesis overview

This thesis explores the relationship between recollections of adverse parenting practice, measures of romantic attachment, and gender role orientation and their impact on both current mental health symptoms and the nature of emotional supports accessed in the individual's ecology.

The first aim of this research was to provide community norms and scientific evidence for the validity of Experiences in Close Relationships Revised (ECR-R; Fraley, Waller & Bremen, 2000). This measure has been used extensively in

attachment research (Fairchild & Finney, 2006; Fraley, Waller & Bremen, 2000; Sibley, et al., 2005) although studies have yet to establish norms based on general community samples. The overwhelming majority of research tends to be based on university student samples or samples drawn from clinical populations. This study draws on results derived from a randomised sample of the general community.

The second aim was to explore the differential impact of recalled maternal and paternal parenting variables (indifference, over control and abuse) on the formation of both romantic attachment (anxiety and avoidance) and gender role orientation (masculinity and femininity) respectively for males and females. The study further explores the impact of these variables on psychosocial health measures including the presence of symptoms of depression, anxiety and stress and the propensity to access emotional support.

The analysis of these variables enables the exploration of the interplay of psychological and sociological domains thought to impact on interpersonal relationships and psychological health (Shaver et al., 1996). Attachment is evidenced in romantic relationships through levels of anxiety and avoidance that are thought to reflect early interpersonal relationships between caregiver and child (Hazan & Shaver, 1987) whilst values that determine appropriate gender-based interpersonal behaviour are thought to emerge from a range of gender values in a given community transmitted through institutions including the family, schools, employment settings and the media (Connell, 1995).

The family system is understood as the primary influence in the development of adaptive interpersonal relationships with both psychological and social

determinants playing significant roles (Baumrind, 1991; Bowlby 1980; 1982; 1985; Maccoby 2000). Adam's story likewise reflects this interplay. Parental indifference from Adam's father and stepmother is strongly indicated throughout his childhood and adolescence. Insecure attachment is indicated in his reported relationship anxiety with and avoidance of family, friends and loved ones. Adam also expressed strong masculine values that minimised emotional expression and the need for emotional support whilst also strongly adhering to a stoic, independent and self-reliant coping style in times of emotional need.

The final aim is to extend the exploration of parenting variables, attachment and gender role orientation to their respective impact on mental health and the nature and propensity of emotional support accessed. Romantic attachment and gender role orientation have been found to have a high degree of convergence (Shaver et al., 1996) with both having a significant impact on help-seeking behaviour and relationship satisfaction (Burn & Ward 2005; Collins et al., 2006; Houle, et al., 2008; Silby et al., 2005).

Adam's story highlights masculine values that minimised emotional expression and access to emotional support whilst also indicating attitudes that dismissed access to professional support services. As noted, Adam's narrative also evidences aspects of anxious attachment where Adam is frequently distressed concerning the security and safety of his friend whilst also evidencing some level of ambivalence and avoidance in his romantic relationship and relationship with his grandparents. This study provides a unique contribution to the literature by exploring these variables whilst also exploring specific emotional supports likely to

be accessed within both an individual's private ecology and broader community context.

The thesis is structured around a number of chapters that provide a detailed review of the literature in areas of parenting, attachment theory, attachment measurement, gender role orientation and access of emotional support.

Chapter 2 involves the review of the rich body of literature on parenting, exploring both historical developments and recent elaborations of parenting practice thought to underpin healthy adjustment.

In Chapter 3, attachment theory is reviewed and the work of early theorists and recent applications of attachment theory to adult romantic relationships is explored.

Extending the exploration of attachment theory outlined in the previous chapter, Chapter 4 details the evolving measurement of attachment and related theorising and modelling of attachment behaviour. Chapter 4 ends with the development of *The Experiences in Close Relationship (revised)* (Fraley et al., 2000) and research that has established the measures norms.

Chapter 5 introduces a broader sociological dimension to the literature review by introducing systemic and cultural influences on the nature of interpersonal relationships. The chapter explores the mechanisms by which gender roles are transmitted and shape appropriate gender based behaviour.

Chapter 6 involves an integration of the literature reviewed and reintroduces Adam's narrative as a framework for the research reviewed. Help-seeking behaviour and suicide literature are introduced with a focus on key themes in Adam's presentation. The research aims are finally presented in the chapter setting the scene for the subsequent studies.

An outline of the methodology used to generate a random community sample and the measures used in the study is presented in Chapter 7. The results of the study are outlined in Chapter 8. The final chapter integrates the results with current literature and discusses the findings in the context of refining clinical practice and suggesting future research.

CHAPTER TWO

THE IMPACT OF PARENTING ON PSYCHOLOGICAL AND SOCIAL HEALTH

Chapter Overview

‘...parents are never the only source of influence on children, and as children grow older, they are more and more subject to the influence of peers, of schools, and teachers and of television. Also, there are random events—a serious illness or accident, an unexpected success, a residential move, an environmental catastrophe—that can alter the trajectory of a child’s life in ways that have little to do with parenting.’ (Maccoby, 2000, p8).

A historical outline of research into parenting and its impact on the psychosocial health of individuals across the lifespan is provided in the following chapter. Highlighted in the chapter is the evolution of parenting theory toward ecological understandings that incorporate both temperamental and broader environmental factors thought to significantly influence healthy child development. Finally a focus on specific areas of parenting practice shown to significantly impact on child adjustment and found to have a ongoing impact into adult psychosocial health is outlined in the chapter.

Scientists and popular media commentators alike have been fascinated by the influence of parenting practice on children’s psychosocial health and the enduring impact of these early experiences extending well into adulthood. In recent history, debate and opinion have focused on the most appropriate method to raise children to form well-adjusted adults, who integrate into community life and themselves go on to pair and have children. This process includes both the protection and nurturing of

vulnerable children as they grow whilst also incorporating the teaching of morals and values consistent with adaptive integration into general community life (see Baumrind, 1991; Holden, 1997; Maccoby, 2000 for an overview).

Though not the only influence on the socialization of children, the family system and more notably parents, are understood as a significant influence on children's psychosocial development (Maccoby). Though the dynamic nature of socialization across the life span is acknowledged, parents and early childhood are assumed to be foundational to the development of values, social skills, resiliency against developing adverse psychosocial difficulties, personality attributes and social integration (Ainsworth, 1989; Bowlby, 1982; Maccoby).

2.1 Historical understanding of parenting

Over the past decades a number of theoretical orientations have developed in the psychology field with each developing unique perspectives and emphasis on the impact of parents in the socialization of their children. The importance of parenting has been central to scientific explorations in developmental and clinical psychology. In recent years there has been a vigorous debate in the literature as to the relative importance of parenting in the context of other significant influences such as genetics, peers and significant others in the extended family (Borkowski, Ramey & Stile, 2002; Harris, 1998).

Psychoanalytic, behavioural and learning theories briefly outlined above emphasised the primacy of parents in shaping the behaviour of children with researchers exploring significant aspects of parenting that impacted on the psychosocial development of children and adolescents (Bandura, 1969, 1977a,

1977b; De Houwer, Thomas & Baeyens, 2001; Freud, 1923; Gusec, 1992). As will later be outlined in this chapter, research into parenting has often failed to account for child temperamental factors (Collins et al., 2000) or broader systemic (Minuchin, 1985) or ecological factors (Bronfenbrenner, 1979). Early researchers often made strong conclusions regarding the influence of parenting on personality and behaviour based on correlational data that often minimized the effects of heredity (Collins et al., 2000). From this perspective behaviour and psychosocial health are thought to arise from aspects of parenting practice that has a linear relationship with outcome variables. Bi-directional and systemic models have emphasised the dynamic relationship and interplay of factors which influence health, the nature of interpersonal relationships and behaviour over the lifespan (Holden & Millar, 1999; Vandell, 2000). This dynamism is clearly highlighted in the nature vs nurture debate, emphasising the interplay of both temperament and parenting practice in eventual child adjustment (Collins et. al., 2000; Maccoby, 2000).

2.2 The Work of Bronfenbrenner, A Bio-ecological Framework

In today's increasingly complex and demanding world parents confront an array of challenges that make it difficult to maintain the balanced family systems across the developmental continuum as their children grow toward independence. The parenting strategies used by parents are often reflections of the interactions used by members in the broader family system (Bronfenbrenner, 1979). Within this context an extreme family system may use punitive strategies that are less intensive, require comparatively less investment of time, are highly emotive, authoritarian and controlling of the child and adolescent's behaviour with the view of forcing behavioural compliance. Unlike the traditional medical model that emphasises linear relationships, modern family system theory integrates a biopsychosocial

understanding of the influences that shape an individual's adjustment and transition from childhood to adulthood (Bronfenbrenner, 1979).

From this perspective an individual's psychological health and adjustment is set within the interplay of biologically determined characteristics, their stage of cognitive, social or emotional development, their interpersonal context (family or marital system) and broader community systems in which they interact. Bronfenbrenner (1979) draws an analogy of his biosocial model where an individual's environment is likened to a Russian doll where the individual is embedded in systems that consecutively become broader with each system interacting and shaping with each other. The ecological context has been found to impact on the nature of parenting practice (varies with different children and influenced by children's behaviour and temperament) whilst also differing over time (Holden & Millar, 1999).

Bronfenbrenner (1979) suggests that an individual develops through bi-directional interactions with four nested structures. At the innermost is the microsystem where the individual is imbedded within the family and learns values and appropriate social behaviour through repeated interactions with immediate family members. This includes relationships between family subsystems including parent-child, sibling and extended family subsystems. The microsystem of the family is embedded within the mesosystem, which represents broader social structures in which the individual interacts including peers, social/recreational groups, the work place and educational institutions. At a regional level the exosystem represent unique regional variations in experiences and values. These variations can be seen in socioeconomic terms, in regional employment differences

and differences in cultural values (i.e. differences in country and city values). The outermost systemic level is the macrosystem which represents the general societal values, laws and customs of a particular culture (Bronfenbrenner).

In this way, parenting practice is imbedded within the cultural norms of a given society. These cultural norms vary from country to country and vary over time reflecting changes in communities and changes in the transmission of cultural values from one generation to the next. Goodnow (1985) suggested that culture is the primary source of information that provides a framework to guide parenting practice used by families. This framework provide the normative standards to which families adhere in their parenting practice.

Theorising on the interplay of culture and parenting practice has focused on concepts of individualistic vs collectivistic cultures as fund in European/North American cultures and Asiatic/Eastern cultures. Individualistic cultures tend to place a greater emphasis on the achievement of personal goals, initiative and autonomy whilst collectivist cultures value parental authority, mutual support and family/social allegiance (Cooper, 1994).

The interplay of culture and parenting practice is clearly seen in the traditional Judeo-Christian cultural views which emphasise a theological view of basic human nature as one that is innately sinful requiring either atonement for this state (through participation in ongoing religious purification ceremonies or maintaining strict rules of behaviour) or spiritual and moral transformation resulting from divine intervention (the Christmas and Easter stories). This cultural view

shapes perceived 'good' parenting practice and from which emanates principles such as 'spare the rod and spoil the child' and 'a child must be seen and not heard'.

Within this social dialogue emphasis is placed on respect and obedience to parents and community standards of behaviour whilst ongoing community debate focuses on decline of moral values and the merits of punishment promote compliance to social values. Recent studies have found evidence for the translation of these religious values into parenting practice (Kendler, Sham, & MacLean, 1997). In a meta-analysis of parenting practice, sociocultural factors were found to significantly influence the increased use of corporal punishment (Gershoff, 2002). In a study of the influence of culture on parenting practice Claes et al., (2003) found that parenting practice (emotional bonds with parents, supervision, tolerance of friends, punitiveness violation of rules and conflict) as reported by adolescents differed between cultures. The research team found that adolescents in North American cultures reported parents to be more egalitarian between male and female children and use less punitive parenting when rules were broken. Whilst Italian and French adolescents reported differences in emotional bonds conflict with parents, parental supervision and less tolerance towards the behaviour of female children to perceived violations of rules (Claes et al., 2003).

2.3 Family Systems Theory and Parenting

Within family systems theory individuals within a family are understood to form a complex pattern of interpersonal interactions that are dynamic in nature and which in turn govern the interactions of individual members (Minuchin, 1974). The family system is viewed in the context of a range of subsystems or dyadic relationships that constitute the whole (i.e. the parent subsystem, father-child

subsystem and sibling subsystem). A central assertion of the theory is that individual behaviour cannot be truly understood separately from the interactions of these subsystems.

In a healthy functioning family, the parents function as a unified front that present a clear and consistent authority that clearly delineates the boundaries between the various family subsystems (Minuchin). Poor family functioning highlights uneven or inappropriate relationships between members and subsystems. In some cases children gain heightened authority or function in parenting roles, a parent may be disengaged or excluded from exercising parenting responsibility or in the case of triangulation a parent and child may develop an inappropriately close relationship that marginalizes one parent (Minuchin).

A family structure that functions poorly with imbalances in parental responsibilities, triangulation and poor family unity/cohesiveness opens the possibility for inconsistent parenting practice, unclear behavioural boundaries and leads to externalising behaviour in children (Schoppe et al., 2001). A family where the parents are in conflict with diminished united authority that sets unclear and inconsistent behavioural expectations, with few appropriate rewards and disincentives for behaviour, increases the probability that the child is rewarded for externalising behaviour (Lindahl & Malik, 1999).

Olson, et. al., (1992) identified a range of family types that incorporated suites of parenting behaviour and characterized the family environment between members of the system. Balanced family systems evidence a moderate level of both cohesion and ability to adapt to change. In these families parents are involved and

engaged in parenting and utilise parenting strategies that maintain family cohesion whilst promoting developmentally appropriate incremental responsibility on their children. Less adaptive family systems (moderately balanced, mid-range and extreme family systems) all evidence either progressively raised or reduced levels of cohesion and adaptability with extreme family systems who function at extreme levels (high or low) on both variables.

Olson and Gorall (2003) suggest that an effective family system often displays a range of qualities including a balance between emotional closeness/warmth and encouragement of independence and individuality, moderate levels of cohesion, demonstrates constructive communication skills, parental involvement/engagement with children, flexibility in parenting, use of egalitarian leadership and evidences democratic principles in decision making within the family. Parents would be expected to use parenting strategies that invest time and focus on negotiation, communication, family cohesion and gaining incremental responsibility. Whereas extreme families may use more punitive strategies, balanced families will negotiate clear behavioural expectations and put in place clear, consistent and appropriate consequences for undesired behaviour.

Emotional support and affection together with monitoring (awareness of adolescent interests, friends and activity schedule) were found to be related to systemic typologies of family functioning with a balanced family functioning typified by high emotional support and monitoring (Henry, Robinson, Neal & Huey, 2006).

In a recent family study Davis, Cummings and Winter (2004) found that children from cohesive families (exhibiting emotionally warm/close relationships, low parental conflict, low co-parenting disagreements, consistent discipline, high spousal affection and parental acceptance of children) were more emotionally secure (as measured by levels of emotional security and regulating self in exposure to conflict). In these balanced cohesive family systems relationships between members are bi-directional and flexible, providing a safe context to offer and receive emotional support whilst also encouraging the development of autonomy.

In enmeshed and disengaged family systems characterized by parental conflict, over control, hostility and ill-defined behavioral expectations, children developed poor interpersonal boundaries due to perceived parental indifference, the application of inconsistent consequences and use of physical and psychological control to gain behavioral compliance.

‘...unsupportive, disengaged family relationships are especially likely to promote dismissing patterns of coping characterized by interpersonal disregard, alienation, and conduct problems. In contrast, diffuse boundaries between subsystems in enmeshed families are postulated to emotionally draw or pull children into family difficulties and, as a result amplify worries and distress.’ (Davis, et al., 2004; p, 547).

2.4 Parenting as an outcome of a multiplicity of factors

Parenting practice is influenced by a multitude of factors including financial concerns, stressful life events, parental conflict and levels of support in addition to genetically determined factors (Kendler, Sham & MacLean, 1997). In a number of

studies maternal depression was found to correlate with a range of parenting practices likely to have detrimental effects on child and adolescent psychosocial functioning including increased rejection, inconsistency in parenting practice, reduced sensitivity toward their children, increased criticism and the expression of negative emotions to the child (Goodman & Gotlieb, 1999; Dix, 1991; Rutter, 1990). Through observing parent/child interactions in a number of settings, Kochanska, Clark and Goldman (1997) found that that a mother's emotional state had an impact on the effectiveness of parenting strategies used with mothers experiencing negative emotions using negative emotions during child and adult interactions, asserting control/power and less warmth and responsiveness. These studies provide evidence that the emotional state of the mother effects nature of the parenting practice they use. Goodman and Gotlieb (1999) reviewed a number of studies that provided evidence that depressed mothers provided poorer parenting than non-depressed mothers and that the psychological health of the father had a positive effect on the psychological health and development of the children of depressed mothers.

It is acknowledged that both paternal and maternal involvement in parenting is influenced from a variety of factors including changes in employment and financial security (Wood & Repetti, 2004). The time that parents spend involved with their children has also been found to differ based on the gender of the child (Aldous, et al., 1998; Lytton & Romney, 1991). Jenkins Tucker, McHale and Crouter (2003) explored parental treatment of adolescents and found a significant tendency for greater parental involvement based on same gender dyads with mothers spending significantly more time with daughters and fathers with their sons. Not only has research suggested the gender of the child influences differential parental

involvement, the gender of the child has also be found to influence the nature of parenting practice particularly in the areas of discipline, activity involvement, and affection (Lytton & Romney, 1991).

The nature of parents' marital relationship has also been found to impact on the nature of parenting provided to children. Parents who describe their marital relationship as loving and supportive have been found to demonstrate higher levels of emotional warmth to their children (Kendler et al., 1997) whilst increased marital conflict has been found to negatively affect parenting practice (Stone, Buehler & Barber, 2002; Erel & Burman, 1995). More broadly, ongoing conflict in families has been found to be a significant negative influence on healthy psychosocial development in children and onwards across the lifespan. Research findings suggest that marital conflict and aggression have been found to significantly influence the emergence of emotional and behavioural problems in children and adolescents including increased emotional insecurity (Harold, Shelton, Goeke-Morey, & Cummings, 2004), increased parent-child conflict (Krishnakumar, Bueler & Barber, 2003), increased risk of suicidal (Wagner, 1997) and externalising behaviour (Harold, et al., 2004). From a systems perspective, inter-parental conflict undermines the emotional security of the child, which increases vulnerability to psychological distress (Davis, Cummings & Winter, 2004).

McHale and Rasmussen (1998) make a useful distinction between marital discord (levels of marriage satisfaction and ability to resolve conflict) and ability to cooperate in parenting (provision of support, emotional warmth and involvement). This distinction highlights that two parents in a marital relationship can still set aside adult differences to co-operate in providing consistent parenting practice.

McHale and Rasmussen also suggest that differences in the amount of parental contact may reflect psychological distancing which lead to the child developing insecurity and anxiety. This imbalance in engagement with the child may also model interpersonal withdrawal as a coping strategy for emotional distress. In this way co-parenting functions in the context of the marital relationship and individual parent-child relationships to structure a unified consistent parenting framework that both parents uphold.

Hostile-competitive co-parenting evident in early childhood has been found to increased externalising behaviour in the early school environment (McHale & Rasmussen 1998; Schoppe et al., 2001) with the quality of a father and child relationship increasing with the strength of the alliance between a couple (McBride & Rane, 1998).

Supportive and affectionate co-parenting provided within an adaptive family structure results in decreased externalising behaviour in children at four years, whilst, undermining behaviour in exercising co-parenting responsibilities results in increased hostile externalising behaviour (Schoppe et al., 2001). In a longitudinal study of the effects of family dynamics and co-parenting conducted with parents and infants, McHale and Rasmussen (1998) found that increased levels of hostile-competitive co-parenting, low family harmony and disputed parenting practice were associated with higher levels of later teacher-reported hostile-aggressive behaviour. Furthermore, increased differences in co-parenting involvement were also found to increase anxious and fearful behaviour observed by teachers in children in a three-year follow up.

The authors suggest that negative co-parenting, where a parent makes private critical appraisals of the other parent to their child, promotes hostile-competitive family interactions, whilst positive co-parenting affirms the strength of the family, promoting emotional warmth and family security.

Together these studies evidence the complex interplay of factors that influence parenting practice and adaptive adjustment of children. These findings highlight that the psychological health of parents, their levels of stress and their level of cooperation adds significantly to providing a stable predictable and safe environment for children.

2.5 The impact of fathers on parenting

The role of fathers in the family has undergone significant changes over the 20th century (Lamb, 2000). The ‘moral teacher role’ of Edwardian and Victorian society was adapted to the ‘breadwinner role’ during the Great War and 1920s eras. The importance of fathers in appropriate gender role development was emphasised in the 1930s and 1940s whilst the nurturing father and emphasis on relationship to children gained favour in the late 1960s (Lamb, 2000).

Many of these changes in views reflect not only significant events in history that impacted on family life and the distribution of work and family responsibilities (i.e. World Wars and the Great Depression) but also the evolution of psychological theorising on parenting practice as it filtered into social discourse (i.e. Psychoanalytic thinking early in the century, the emergence of behaviourism, social learning theory mid-century and attachment theory in the later part of the 20th century).

In its broadest conceptualisation, fathering can be understood in the cultural milieu in which it is found with fathering values changing across cultures and also across the parenting settings in which they are found such as single parents, non-custodial parenting and step-parenting (Cabrera et al., 2000; Lamb, 2004). Paternal parenting practice has also been found to differ based on socio-economic status with fathers in lower economic groups more frequently using verbal and corporal punishment as discipline strategies (Burbach, Fox & Nicholson, 2004).

With the growing emphasis on systemic and biosocial models, paternal influences have been explored and found to significantly impact on both family functioning and child psychological adjustment (Phares & Compas, 1992; Marsiglio et al., 2000). Though generally both maternal and paternal parenting practice has been found to influence child and adolescent adjustment, the significant role of fathers has increasingly been emphasized (Phares & Compas).

The bulk of research has explored parenting with a maternal bias often not involving fathers in the sample or fail to differentiate between parenting practices such as monitoring or knowledge of children's behaviour (Crouter & Head, 2002). A number of studies have noted the difficulty in gaining father participation. Brennan et al, (2003) suggest that results analysing the impact of paternal parenting may have reduced statistical power due to less father participation in studies.

Research has highlighted that fathers generally are more involved in parenting of their children than earlier generations (Wood & Repetti, 2004). Although mothers continue to exercise the greatest contribution to parenting, father

involvement increases with changes in the family system particularly with changes in employment and the financial security of the family (Wood & Repetti, 2004).

Concurrently with changes in parental involvement has also been the changing structure of families with a multitude of family structures resulting in single-parent families with fathers as the sole caregiver, blended families and separated families with co-parenting arrangements (Lamb, 2004). A number of domains have been suggested to underpin paternal involvement including accessibility and availability to their children, engagement and responsibility for direct parenting care of children (Lamb, Pleck, Charnov, & Levine, 1987) and women's attitude to parenting responsibilities and the division of these responsibilities (Allen & Hawkins, 1999). Furthermore, egalitarian paternal attitudes have been found to increase parenting involvement with this attitude being stronger with decreased age and work responsibilities and increased education (Bulanda, 2004).

Morman and Floyd (2006) explored optimal paternal qualities in open-ended questioning of fathers and their sons. The researchers found relatively strong agreement in fathering qualities with many items identified associated with quality of relationship including loving, availability, involvement, support and being a good role model. Though there was general agreement, fathers emphasized the importance of nurturing, being available and listening whilst sons emphasized the importance of fathers granting autonomy through the gradual release of parental control. Indeed literature indicates that a range of paternal parenting practices have significant impact on the wellbeing of children and adolescents (for review see

Marsiglio et al., 2000) with a positive paternal relationship found to increase psychological health of adolescents (Salem, Zimmerman & Notaro, 1998).

A number of studies have highlighted the importance of fathers in reducing externalizing problems and increasing moral regulation (Denham et al., 2000; Kerr, et al., 2004). Flouri (2007) found that father involvement in their children's lives increased pro-social behaviour whilst reducing hyperactive behaviour and overall difficulties children experienced. In comparing maternal and paternal parenting practice Kerr, et al., (2004) found that paternal induction (clear setting of rules and behavioural expectations) and emotional warmth, decreased externalising behaviour in adolescent males. Furthermore, lower levels of induction and more frequent use of physical discipline by mothers increased externalising behaviour in boys (Kerr, et al., 2004). Mothers who reported reduced use of physical punishment and used induction predicted fewer externalizing behaviours and greater levels of moral regulation among boys. In contrast, paternal warmth was a robust predictor of lower levels of boys' externalizing behaviour and also was associated greater levels of boys' moral regulation (Kerr et al.). Results also suggested that fathers' discipline may be characterized by less warmth and inductive control than mothers. These results confirm that paternal parenting behaviour is as influential as maternal behaviour and that it contributes significantly to variations in child outcomes. Paternal induction was positively related to moral regulation in adolescent boys but not linked to externalizing behaviour whilst paternal emotional warmth and parental induction reduced externalizing behaviour in boys across ecological informants (teachers and both parents) (Kerr, et al.).

Together these studies provide evidence into the significant impact of fathers parenting practice in the healthy development of children. A father's paternal induction provides a safe and predictable home environment in which a child can grow, explore and experience their surrounds. Children's behavioural expectations are clearly outlined with clear and consistent applications of rewards and consequences appropriate to the development of the child. The demonstration of emotional warmth, availability and engagement with the child provides emotional security that is internalised. A number of factors have been identified that influence a father's level of engagement in parenting.

The gender of the child has been found to influence the degree of involvement in parenting with fathers more likely to attend and be involved in their son's parenting than their daughters (Aldous, Mulligan, & Bjarnason, 1998; Yeung, Sandberg, Davis-Kean, & Hofferth, 2001). This is thought to reflect the desire of fathers to engender in their sons values and attitudes that enable them to achieve masculine gender-orientated success including; independence, strength, autonomy and instrumental competency (Kenny & Gallagher, 2002).

Likewise the age of the child has also been found to be a further influence in determining paternal involvement in parenting. Yeung, et al., (2001) found that by early adolescence children generally spent less time at play and engaged in interpersonal activities with their fathers with these activities likely to foster stronger relational ties. Though there was an overall decrease in levels of interpersonal activities with children relative to increasing age of the child, paternal involvement was found to increase compared to maternal involvement though this involvement tended toward play rather than parenting responsibilities (Yeung, et al.,

2001). Part of this change could relate to the shift from family to same-sex best friends and peers for aspects of emotional support and children's increased breadth of systems they engage with during the transition from childhood to adulthood including education, recreation and employment settings (Markiewicz et al., 2006).

More broader socioeconomic factors have also been identified to influence parenting practice. Poverty and levels of income have been found to effect both the psychological wellbeing of family members and the nature of parent child relationships (McLoyd, 1998; Mistry, Vandewater, Huston & McLoyd, 2002). This literature suggests that the economic stress that family's experience effect the amount of resources that possess effecting the quality of family life. Resource models emphasize that levels of income effect the material and nonmaterial resources available to a family such as human, social and cultural capital (Duncan & Brooks-Gunn, 2000) and intern effect measures of wellbeing (Kawachi, Kennedy & Glass, 2005).

Recent research suggests that fathers may also be more influential for boys than girls in the domain of intimacy and the development of marital attitudes during adolescence (Risch, Jodl, & Eccles, 2004) with fathers also reported to be more strongly influential in fostering autonomy (Kenny & Gallagher, 2002).

2.6 The emergence of emotional processes in socialization

Whereas earlier conceptualisations of parenting tended toward the parents as teachers shaping a learning environment, modelling child behaviour or the individual resolving intrapsychic forces, Baumrind (1965; 1968; 1971) focused on the role of parental control in socializing toward successfully integrating into both

families and society. Baumrind's (1968) early conceptualisation of parenting focused on normal variations in parenting practice with a focus on parental authority and control of behaviour.

Baumrind developed a tripartite model through which she identified three styles or categories of parenting including permissive (the imposition of few demands encourages autonomy/independence, and is unresponsive/non-controlling of a child's behaviour), authoritarian (applies rules and behavioural control, discourages independence and is unresponsive) and authoritative (which balances control and responsiveness encouraging discourse between the child and parent in decisions and is considered and clear when enforcing rules). Each of these parenting styles encompassed a range of parenting behaviours with each style differing by how control was expressed and used (Baumrind, 1978).

Parenting style is understood to be the emotional climate within the family system through which parents communicate their attitudes toward the child. These parenting behaviours are both goal directed (parenting practices) and non-goal directed including expressions of emotion, tone of voice and gesture (Darling & Steinberg, 1993). These styles of parenting describe the parenting milieu comprising of the emotional relationship between the parent and child, parenting practice and behaviours and the parent's values and beliefs (Darling & Steinberg).

2.7 Parenting style as a two dimensional framework

Whilst Baumrind's three-way categorical typology based on the expression of control was a watershed for research Maccoby and Martin (1983) proposed a model that reinterpreted parenting style along two dimensions of demandingness

and responsiveness. Parental responsiveness (also referred to as parental warmth or emotional support) refers to the extent that parents “intentionally foster individuality, self regulation, and self-assertion by being attuned, supportive and acquiescent to children’s special needs and demands” (Baumrind, 1991, p 62a) whilst parental demandingness (or behavioural control) refers to “the claims parents make on children to become integrated into the family whole, by their mature demands, supervision, disciplinary efforts and willingness to confront the child who disobeys” (Baumrind, 1991a, p 62-63).

The dimensions enabled the creation of four parenting style categories including authoritative (high on both demandingness and responsiveness), authoritarian (high in demandingness and low responsiveness), indulgent (low in demandingness and high in responsiveness) and neglecting parents (low in both demandingness and responsiveness) (Maccoby & Martin, 1983). In this way styles of parenting can be understood as configurations of attitudes and behaviours that the parent express toward the child that create a parenting climate displayed across a variety of situations and contexts (Darling & Steinberg, 1993).

Authoritative parenting that involved parents who were attentive and responsive to children’s needs have been found to be linked with numerous positive psychosocial outcomes for children (Baumrind 1991). Authoritative parenting has been found to positively impact on academic outcomes (Wintre & Yaffe, 2000) increased psychosocial health and school integration (Shucksmith, Hendry & Glendinning, 1995), decreased likelihood of drug use, delinquency, and school behaviour problems (Lamborn, Mounts, Stienberg, Dornbusch, 1991) and better coping (Dusek, & Danko, 1994).

Neglectful parenting (poor relationship with children, inadequate use of parental discipline, poor supervision and use of physical punishment) has been found to significantly increase the risk of offending behaviour after controlling for other offending risk factors (socioeconomic status, culture and previous offending) (Hoeve, et al., 2008).

A further typological model that has attracted popularity in the literature is based on the early work of Parker (1983) which focused on the interaction of care and protection. Parker (1983) identified parental control (over-protection) and low care (emotional warmth) as two specific areas of parenting that when combined as ‘affectionless control’ impacted negatively on the psychosocial development of children. Affectionless control has been suggested to have similar thematic qualities to Bowlby’s conceptualization of pathogenic parenting (Bowlby, 1979) where the absence of parental care combined with children providing care to the parent result in the formation of insecure attachment (Plantes et al., 1988).

2.8 Limitations in the use of typologies

Parenting has been studied using both a typological approach, where parenting variables are aggregated into categories or over-arching parental types, and a dimensional approach where individual groups of variables are disaggregated and analysed.

The typological approach creates a generalised parenting style based on parenting scores on two underlying factors thought to significantly impact on parenting (Maccoby & Martin, 1983). These typologies create distinctive groups

based on scores of identified variables, suggesting participants in these groups are both qualitatively and quantitatively different populations of people. In this way a sample is categorized into discrete groups that will evidence homogeneity of variance within groups and heterogeneity between groups.

The most common method of creating typologies is to use the median split method that which artificially creates differences in scores. This is illustrated in creating gender role typologies (masculinity, femininity, androgyny and undifferentiated) where the median score is identified and participants separated into high or low groupings even if scores are only marginally different from the median (Bem, 1981a). This spitting can infer larger differences between groups than actually exist. Furthermore, it converts interval data into categorical data. In this way significant information on individual differences is lost, reducing estimates of covariance between variables under consideration. The reduction of continuous scales into dichotomies also increases the instance of type I error (Cohen, 1983). The use of typologies obscures individual contributions of each dimension used to create parenting categories (Bean, Barber & Crane, 2006).

A further limitation in the use of typologies has been the inconsistent definition of both emotional warmth and control (DiBartolo & Helt, 2007). Similar to emotional warmth is the concept of parental support, which is understood to reflect the extent parents are accepting and provide emotional warmth to their children including nurturing behaviours such as praise, encouragement, physical affection and general support (Peterson & Hann, 1999). The provision of parental support has been implicated to increase a range of psychosocial outcomes in children and adolescents including school competence and academic outcomes

(Amato 1989; Bean, Bush McKenry & Wilson, 2003), identity formation (Sartor & Youniss, 2002), general life satisfaction (Henry, 1994) and increased self esteem (Bean et al., 2003).

Likewise typological conceptualisations have limited ability to differentiate various aspects of parental control. Control has at times been viewed in a positive context with parents placing appropriate boundaries on behaviour in line with social and cultural expectations (Baumrind, 1991b; Maccoby & Martin, 1983) whilst at other times viewed in a negative context where excessive control, dominance and over protection results in poor adjustment (Muris & Merckelbach, 1998). Furthermore parental control can be understood to have both components of behavioural and psychological control (Barber, 2002; Bean, Bush, McKenry & Wilson, 2003).

2.9 Behavioural control

Behavioural control focuses on regulating and directing child and adolescent behaviour toward normative behaviour that is desired in the family system and which is deemed developmentally and socially appropriate through the use of a range of parenting techniques and practices (Peterson & Hann, 1999). The use of behavioural control has been found to result in decreased behavioural difficulties in adolescence (Grey & Stienburg, 1999; Patterson & Stouthamer-Loeber, 1984). Researchers have identified a number of parenting practises that increase behavioural compliance of children including monitoring (Crouter & Head, 2002), parental induction (Peterson & Hann, 1999) and corporal punishment (Gershoff, 2002).

2.10.1 Monitoring

One such technique is the use of monitoring in which parents attend and actively keep apprised of their child's and adolescent's day-to-day schedules, friends, leisure and sporting activities. Developmentally appropriate monitoring ensures that as the child and adolescent matures, they gain incrementally more responsibility for own behaviour and decisions (Dishion & McMahon, 1998). It allows the child and the adolescent to participate in developmentally appropriate social interactions and recreational pursuits while the parent/s maintain a level of control that ensures safety and adherence to social and family expectations.

Increased parental monitoring has been found to positively influence a range of psychological and behavioural outcomes for adolescents including psychosocial wellbeing (Salem, Zimmerman & Notaro, 1998), increased identity achievement (Sartor & Youniss, 2002) and increased academic achievement (Herman, Dornbusch & Herting, 1997) whilst reducing antisocial behaviour (Brody, 2003; Bean et al., 2006; Crouter & Head, 2002), drug use (Westling, et al., 2008) and risky sexual behaviour (Ria, et al., 2003; Donenbourg, 2002).

In a recent study Henry, Robinson, Neal and Huey (2006) explored adolescent perceptions of family system functioning with a specific focus on parental behaviours including monitoring, provision of emotional and affectional support, parental induction and the use of punitive strategies used in these families. They found that parental support and monitoring were the strongest variables that discriminated between family functioning subtypes (balanced, moderately balanced, mid-range families and extreme families). Of the two variables the provision of support was found in both balanced (moderate levels of both cohesion and

flexibility) and moderately balanced families (moderate levels of either cohesion or flexibility). Adolescents who perceived their families as warm, close and flexible perceived their parents as supportive. Adolescents also reported higher support and monitoring by mothers than by fathers whilst adolescent girls reported greater parental punitiveness than adolescent boys (Henry, Robinson, Neal & Huey 2006).

Gender differences have also been found in the effect of parental monitoring on sexual behaviour in 'at risk' adolescents with increased monitoring more strongly associated with increased sexual risk-taking in troubled girls than troubled boys (Donenberg et al., 2002). When permissiveness was high, females engaged in increased risky sexual behaviour, whilst increased monitoring decreased risky sexual behaviour for both males and females (Donenberg, et al., 2002).

2.10.2 Parental Induction

A second control strategy is the use of parental induction where parents clearly outline behavioural expectations to their children and adolescents in the family using logical reasoning and explanation. Parental induction applies clear behavioural directions with consistent consequences to direct children toward desired behaviour (Peterson & Hann, 1999). The use of parental induction has been found to increase general competence (Amato, 1989), self esteem (Peterson & Hann, 1999) and increase perspective taking (Henry et, al., 1996). In a recent study parental induction and emotional warmth was found to increase moral regulation whilst reducing externalizing behaviour in boys with mothers tending to endorse higher levels of parental induction and emotional warmth than fathers (Kerr, et al., 2004).

2.10.3 Physical control

The use of corporal punishment, its effectiveness to gain behavioural compliance in children and its enduring impact on psychosocial health has been debated both in the literature and in the popular media (see Gershoff, 2002 for review).

Gershoff delineates corporal punishment (slap or spanking) from physical abuse (punch, bashing or burning) by the physical injury that results from the action and suggests that both represent two points on a continuum where the increased frequency of corporal punishment becomes physical abuse (Gershoff, 2002).

The use of physical punishment has been found to differentially impact on males and female adolescents with delinquency increasing in males whilst decreasing in females (Heaven, Newbury & Mak, 2002). The use of corporal punishment has been implicated in damaging the child and parent relationship resulting in increased child fear and avoidance of parents (Grusec, 1997; Grusec & Goodnow, 1994; Maccoby & Martin, 1983).

The enduring impact of physical abuse has been consistently demonstrated in the literature. Childhood physical abuse has been found to increase antisocial behaviour and violent crime (Langsford, et al., 2007; Stouthamer-Loeber, et al., 2001, Wisdom, 199), increase internalizing disorders (Al-Modallal, Peden & Anderson, 2008; Fergusson & Lynskey, 1997), increase suicidal risk (Fergusson & Lynskey, 1997), increase domestic violence in romantic relationships (Arias, 2004), decrease educational attainment (Langsford, et al., 2007), and increase personality disorders (Battle, et al., 2004).

In a study sampling the general population Weiss et al., (1992) found that the use of harsh discipline substantially increased violence across ecological settings including both the home and at school and that the expression of aggression in school was mediated by errors in the processing of social information. In a recent study, physical abuse in the first five years of life was found to significantly increase the risk of juveniles being arrested for violent, and nonviolent offences, increase violence in relationships, reduce the likelihood of high school completion, increase employment instability and increase teen parentage (Lansford, et al., 2007).

In a recent study Kerr, Lopez Olson and Sameroff (2004) found that the use of physical punishment rather than inductive discipline in a family atmosphere that lacked emotional warmth decreased moral regulation (ability to refrain doing wrong through behavioural control) and exhibited heightened externalizing behaviour. Parental induction and emotional warmth were linked with positive child functioning, as reflected in self-regulation according to standards of conduct and fewer externalizing problems.

In a literature review Gershoff (2002) found that the use of physical punishment was generally effective in gaining short-term behavioural compliance but was less effective in long-term compliance (internalisations of moral codes) and that this compliance was stronger in younger children diminishing as the child moved through adolescence.

The high co-occurrence of both physical abuse of children and domestic violence between parents has been demonstrated in the literature (Bourassa, 2007;

Holden et al., 1998). These findings suggest that the tension and violence between adult partners is likely to extend to other members of the family system (Holden et al., 1998). The ongoing emotional tension and violence between parents likely reduces parenting capacity to manage the family environment and as a consequence parents are likely to use violence toward children as a disciplinary strategy consistent with the interpersonal strategy used in their adult relationship (Jaffe et al., 1990). The co-occurrence of physical abuse and exposure to domestic violence in a family system has been found to have a significantly increased impact on adolescents with both increased frequency of externalising (delinquent and aggressive behaviour) and internalising behaviour (somatic complaints, depression and anxiety) (Bourassa, 2007).

2.11 Psychological Control

A second and more intrusive form of control is psychological control where parents use a range of techniques intended to gain a child and adolescent's behavioural compliance through strategies that intrude on and manipulate their children's psychological world.

The use of psychological control by parents has a negative effect on a child's psychological health due to parents using a range of strategies that undermine the child's sense of self and their security in the parent. These strategies can include; invalidating the child's feelings, the promotion of guilt, blame of the child, the provision of love contingent on desired behaviour, belittling and verbal attacks on the child (Barber, 2002; Barber & Harmon, 2002; Doyle & Markiewicz, 2005). Barber found that the use of psychological control by parents contributes

significantly to adolescents' increased externalising behaviour and symptoms of depression and anxiety.

In a positive reframing, psychological control can be reversed to incorporate the promotion of psychological autonomy. Clear developmentally appropriate guidelines for children's behaviour provide a family environment that socializes children in line with family and broader social values that allow integration into the community.

Grey and Steinberg (1999) found that the granting of psychological autonomy by parents indicated by parenting behaviour that was non-coercive, the use of democratic discipline and promotion of a child's individuality resulted in increased psychological health. Increased involvement by parents in their children's lives, the delineation of clear behavioural expectations and the promotion of psychological autonomy have been found to increase adolescent self reports of academic competence, whilst decreasing symptoms of depression and anxiety (Grey & Steinberg).

A wealth of literature has explored the impact of emotional warmth/care and parental control using the Parental Bonding Instrument (PBI) (Gladstone & Parker, 2005). Low care is defined by emotional coldness, neglect and indifference whilst high care is evidenced by emotional warmth, empathy, affection and closeness. High protection is characterized by over protection, intrusion, control, excessive contact and prevention of independence whilst low protection encourages autonomy and independence (Parker, et al., 1979). The lack of parental care has been found to be correlated with a range of mental health disorders including anxiety disorders

(Gerlsma et al., 1990; Silove et al., 1991; Wilborn & Dahl, 1997), depression (Hill et al., 2001; Heaven, et al., 2004; Parker, et al., 1997; Heaven, Newbury & Mak, 2002) and drug dependence (Torresani et al., 2000).

In a recent study Enns et al., (2002) examined the relationship between participant experiences of parenting and indicators for psychological health in a large community sample and found significant correlations between the occurrence of mental health disorders and parenting history as reported by participants. Lack of parental care was found to be the strongest predictor of a range of psychological disorders with recalled maternal parenting experiences found to be a stronger predictor of adult psychopathology than recalled paternal experiences.

For males in the sample, recollection of paternal parenting (lack of care and overprotection) generally had a stronger impact on the presence of psychological disorders than maternal variables, particularly in the areas of drug abuse (alcohol abuse, drug abuse and drug dependence) and antisocial behaviour. Conversely paternal overprotection and authoritarianism increased symptoms of social phobia.

For women in the sample, maternal lack of care significantly impacted on a range of disorders including depression, dysthymia, post-traumatic stress disorder, panic disorder, and agoraphobia. Maternal overprotection likewise had a significant impact on a range of mood disorders. It was likewise a significant factor in increasing social phobia in women participants. Conversely paternal overprotection increased alcohol abuse.

In clustering disorders into anxious misery (depression, dysthymia and generalised anxiety disorder), fear-based disorders (social phobia, simple phobia, agoraphobia and panic disorder) and externalising disorders (drug dependence and antisocial personality disorder) the researchers found differential influences of parenting variables based both on the gender of the parent and of the participant. Lack of maternal care impacted significantly on all three clusters (anxious misery, fear and externalising disorders) for females in the sample whilst paternal lack of care significantly impacted on all three clusters for males in the sample.

In an Australian sample of adolescents, Heaven, Newbury and Mak (2002) found that self-reported adolescent delinquency (drug use, truancy, running away from home) was related to low care/warmth demonstrated by both fathers and mothers, and mother's overprotection. The absence of paternal emotional warmth was found to increase adolescent depression more strongly for female adolescents than males. The significance of care was generally repeated for mothers and their daughters with overprotection also having a significant protective function.

Interestingly, the influence of father's care was stronger than both overprotection and authoritarian behaviour in acting as a protective factor for externalising behaviour, drug abuse, mood disorders and anxiety for mostly male participants. The lack of paternal care when combined with overprotection significantly increased the odds ratio for drug and alcohol abuse. Furthermore, self-report measures of parenting practice indicated that physical parenting (the use of physical punishment) increased delinquency in their male adolescents (Heaven et al., 2002).

2.12 Definitional confusion

One difficulty in the literature has been definitional confusion with terms of psychological control/abuse and emotional abuse often used interchangeably and preferred differently in literature emanating from either Europe or North America (Edmundson & Collier, 1993). This has resulted in research findings being difficult to compare and various measures developed (Edmundson & Collier, 1993; Moran, et al., 2002).

Psychological abuse can take many forms, including parental emotional and/or physical unavailability; where caregivers fail to provide attention, comfort, care and reassurance; fail to provide encouragement and acceptance; or are hostile, reject and denigrate the child (Hart, Binggeli & Brassard, 1998). Moran et al., (2002) defined psychological abuse as cruelty demonstrated by verbal and nonverbal acts by a person in power or responsibility over the child that damages social, cognitive, emotional, or physical development. These acts include humiliating/degrading, terrorizing, extreme rejection, deprivation of basic needs or valued objects, inflicting marked distress/discomfort, corrupting/exploiting, cognitively disorientating, or emotional blackmail. The researchers excluded behaviours of physical or sexual attack, although psychological abuse may accompany these and instances of maltreatment including neglect, antipathy, role reversal, high discipline, or lax supervision (Moran, et al., 2002).

Thompson and Kaplan (1996) identified four key features common to definitions of psychological abuse: adverse parental behavior, a sustained pattern of negative interaction, child vulnerabilities, and damage in terms of emotional and psychological functioning. A range of parenting behaviours have been identified as

risks for psychological abuse including, confinement of children to small spaces, severe verbal abuse, threatening the child, public humiliation, refusal of required mental health treatment, Cinderella syndrome, promotion of delinquent behaviour, denial of social and emotional growth, and not providing a safe and secure home environment (Burnett, 1993).

2.13 Consequences of psychological abuse

The experience of childhood psychological abuse and adverse childhood parenting experiences have been found to have a negative impact on a broad range of psychological health indicators including increased risk of self harm and suicide (Stone, 1993), substance abuse (Kendler, Bulik, Silberg, Hettema, Meyers & Prescott, 2000; Anda, et al., 2006), schizophrenia (Read, et al., 2001), early sexual activity and increased promiscuity and sexual dissatisfaction in adulthood (Kendler et al., 2006). Childhood psychological abuse has also been found to have significant role in the development of eating disorders (Kent et al., 1999; Mullen, et al., 1996).

The experience of psychological abuse in childhood has also been implicated in the presentation of enduring symptoms of both anxiety and depression in adulthood (Fergusson & Lynskey, 1997; Kaufman, 1991; Stone, 1993). In a recent qualitative study DeRobertis (2004) found that maternal psychological abuse resulted in participants experiencing a range of negative appraisals of self including feelings of worthlessness, shame, inadequacy, dissatisfaction with self and disempowerment. These negative self-appraisals were associated with decreased self-esteem, externalizing behaviour, self-directed anger, and pessimism about the future.

Psychological abuse has also been found to increase suicidal risk (Fergusson & Horwood, 1998; Stone, 1993). Furthermore, Morimoto and Sharma (2004) found that college students who experienced verbal aggression from parents were significantly more likely to experience adverse psychological symptoms (obsessive compulsiveness, depression, anxiety and distress) and to perceive themselves as being more depressed, aggressive and to be more overwhelmed in interpersonal relationships than controls. Though the researchers found that impact was uniform for both males and females in the sample the impact of verbal aggression was found to be stronger for females (Morimoto & Sharma).

2.14 Sexual Abuse

Though the impact of both physical abuse and psychological abuse have been shown to have an enduring consequence to psychosocial health, sexual abuse has been found to have similar traumatising effects in the long term (Stevenson, 1999).

An early literature review of published studies on the psychosocial impact of sexual abuse, Kendall-Tackett, et al., (1993) found that PTSD was commonly experienced across studies though psychosocial consequences were not the same in clinical and community samples. The review identified a range of symptoms including internalizing behaviour (depression and anxiety), increased sexualized behaviour, externalizing behaviour (aggression/antisocial behaviour), and interpersonal withdrawal. The authors suggested that a number of factors related to the abuse significantly influenced the nature and severity of psychosocial consequences including the age of the child, the frequency of sexual abuse, the use of force, a negative outlook, the coping style used, the nature of sexual abuse (oral,

anal or vaginal penetration) and the absence of maternal support (Kendall-Tackett et al., 1993).

Silverman et al., (1996) found increased rates of depression, post-traumatic stress disorder, antisocial behaviour and drug abuse in individuals who experienced either physical or sexual abuse. Furthermore, increased rates of suicidal ideation were found in women and increased drug dependence in men.

Finlehor and Brown (1985) suggest four mechanisms involved in the traumatisation of children when exposed to sexual abuse; traumatic sexualisation (socialization/conditioning of inappropriate sexual behaviour), betrayal (insecurity that trusted people will provide care and protection), stigmatisation (the disruption to self esteem and self concept resulting from shame) and powerlessness (related to PTSD symptoms where events are uncontrollable with a fear death or injury).

In a large community study, Moran, et al., (2004) found that a range of childhood abuse experiences significantly increased reported drug use in adolescence with emotional abuse the weakest influence followed by physical, sexual and combined physical and sexual abuse. The study also found differential results based on gender with males more likely than females to use illicit drugs as a consequence of combined physical and sexual abuse whilst females were more likely to use illicit drugs as a consequence of physical abuse.

It has been suggested that experiences of abuse in childhood may disrupt an individual's ability to form long-term relationships in adulthood leading to less stable short-term relationships (Kendler, et al., 2006). The lack of parental warmth

has been suggested as impacting on increased depression and lower self worth in the face of experiencing child abuse whilst abuse itself influences the presentation of PTSD (Weissman Wind & Silvern, 1994). The researchers found that sexual abuse experience itself was related to later post-traumatic stress disorder symptoms whilst the lack of parental emotional warmth increased the risk of low self-esteem and depression.

These studies provide clear evidence to the highly destructive consequence of sexual abuse on not only health psychological development and coping strategies but also on how an individual forms and maintains interpersonal relationships. The experience of sexual abuse in childhood has profound effects with correlations to increased depression, anxiety, post traumatic stress disorder and elevations in suicide risk in adulthood. Furthermore these psychological consequences are often co-occurring with other forms of abuse and set within social challenges such as poverty and homelessness forming bidirectional relationships (Johnson, 2004).

2.15 The moderating influence of resilience.

Resilience is typically understood to refer to positive adaptation in the face of adverse developmental experiences (Luthar, 2006; Rutter, 1985, 1987). In this way an individual's resilience enables them to overcome or avoid negative psychosocial outcomes from unfavorable conditions in their ecology that would normally lead to a maladaptive developmental consequences. From this perspective resilience is viewed as a personal quality or trait that enables the individual to overcome adversity.

Research has tended to focus on identifying factors that are predictive of adaptation to adverse life events and operationalize this as resiliency including internal qualities, external environmental factors and interpersonal experiences (Straudinger, Marsiske & Baltes, 1995). Due to this range of factors Bronfenbrenner and Crouter (1983) suggested a social ecological model that explored the interaction of individual factors, contextual risk and protective factors and processes in the ecology that impacted on positive adaptation. More recently Greve and Straudinger (2006) suggested that resilience arise out of the interaction of individual resources (capacities, competencies/skills and attributes) and development challenges or problems experienced (obstacles, losses experiences). Within this broad interaction of personal qualities and ecological influences a number of internal resiliency factors have been identified including; intelligence (Masten, 1994), Gender (Rutter, 1982), temperament (Rothbart & Putman, 2002), internal locus of control (Luthar & Ziglar, 1992), interpersonal awareness (Luthar, 1991), Insight (Wolin & Wolin 1993) and self esteem or self efficacy (Bandura, 1977a). A number of social skills have also been identified to increase resiliency including problem solving skills (Rutter & Quinton, 1994; Wolin & Wolin, 1993), interpersonal skills (Berndt & Ladd, 1989) and ability to access emotional support (Krause, 2007). Resilience may be viewed as an bridging concept for experiences, coping and adaptive development integrating a variety factors, concepts and models. Many aspects of a child's personality as well as interpersonal and environmental interactions have the potential to develop resilience and positive life adaptation in an individual.

2.16 The Measure of Parenting Style (MOPS)

In response to the importance of parental abuse on psychological health Parker, Roussos, Hadzi-Pavlovic, Mitchell, Wilhelm and Austin (1997b) developed the Measure of Parenting Style (MOPS) which incorporated revised items from the PBI measuring parental indifference and over control and also included an abuse scale.

The authors found that the two measures were inter-correlated with indifference and over control scales of the MOPS related to PBI measures of care and protection. Results also indicated that maternal over control, indifference and abuse together with paternal indifference and over control contributed significantly to depressive symptoms whilst over control (maternal and paternal) increased panic disorder and social phobia.

In a study using both the PBI and MOPS measures of parenting, Parker et al., (1999) explored the relationship between parenting experiences and personality styles in a sample of patients diagnosed with depression. The research team found that both maternal and paternal MOPS scores were significantly correlated with DSM-IV personality styles (American Psychiatric Association, 1999) including paranoid, borderline, anxious, depressive and self-defeating personality styles. Particular personality clusters were found to be related to recalled parenting experiences with Cluster C characteristics (anxious/fearful) found to be associated with both maternal and paternal indifference, over control and abuse, whilst only maternal parenting variables were related to cluster B personality characteristics (dramatic, emotional and erratic). Furthermore parental abuse has been found in sex offenders, with rapists describing their fathers as more abusive, whilst child

molesters describe their mothers as more abusive, in comparison to the controls (Giotakos, Vaidakis, Markianos, Spandoni & Christodoulou, 2004).

In a recent study both paternal and maternal indifference was found to significantly predict female suicide (Ehnvall, Parker, Hadzi-Pavlovic & Malhi, 2008). Females with a history of suicide attempts reported significantly higher maternal and paternal indifference scores than females with no suicide attempt history though this relationship was not found for males. The authors argue that female perceptions of being rejected by parents similarly function in adulthood to reduce help-seeking behaviour for fear of repeating childhood experiences (Ehnvall, et al.).

2.17 Chapter summary

The preceding chapter provided a historical overview of parenting literature with an emphasis on parenting within a broader systemic ecology. This biosocial understanding integrates broader systemic influences with parenting practice and individual constitutional differences to form a dynamic interplay between the child, parents, the local environment, peers and broader cultural values. Both maternal and paternal parenting influences were highlighted as important factors contributing to healthy adjustment. Early work by Baumrind (1991) Maccoby and Martin (1983) and Parker (1983) re-conceptualised parenting, introducing typological understandings that incorporated control, care and protection.

Linking the literature to aspects of Adam's narrative provides some insights into the interplay of parenting variables and psychological adjustment.

Systemic factors are clearly evident in Adam's presentation. These factors include his intimate family system, the significant influence of peers, his school environment and his local community.

Furthermore these systemic factors are dynamic in nature, responding to changes in Adam's ecology. Adam's family system changes between his childhood family, his grandparents as primary care-givers, to his stepfamily. Likewise Adam's local community and peers change as he moves from a country to urban area. These interrelated systems are implicated in promoting healthy adjustment (Henggeler, et al., 1998).

A strong factor emerging in both the literature and in Adam's case presentation is the heightened level of conflict within the family system and its damaging effect on psychological adjustment. Parental conflict is clearly indicated in Adam's early childhood and implicated later during his adolescence between his father and stepmother. Frequent unresolved conflict between Adam and his father and stepmother is strongly evident in the years prior to Adams's death resulting in Adam's perceived alienation from his family.

The relationship between Adam and his father is also a prominent feature in Adam's case history. Following the death of Adam's mother, Adam's father moved away to establish a new family leaving his children in the care of their grandparents. Adam perceived this move as a rejection of him and his family and later viewed his father as aligning with his new family at the expense of Adam and his siblings. Adam also described his father as the primary disciplinarian in the family. The conflictual relationship with his father, Adam's alienation from the family and his

strong anger toward his father minimised the expression of emotional warmth between Adam and his father. The lack of emotional warmth and Adam's perceived rejection and indifference of his father toward him appear significant issues in both Adam's presentation and in the literature reviewed.

Adam's description of the parenting practice used in his stepfamily during his adolescence suggested low levels of emotional warmth and high levels of behavioural control. The importance of these variables was highlighted in the chapter noting that detrimental effect of both low emotional warmth and the use of physical and psychological control.

CHAPTER THREE

ATTACHMENT THEORY AND RESEARCH

Chapter Overview

The following chapter will provide a historical outline of research into attachment and the impact of early relational experiences on both the quality of subsequent relationships and psychosocial health of individuals across the lifespan. The chapter will focus on the evolution of attachment theory, exploring the contribution of key theorists toward understanding behavioural systems thought to underlie parent and child relationships. The chapter will also explore research into the bi-directional development of attachment styles and continuity of these styles across the lifespan with a final focus on romantic attachment.

In the last four decades there has been increasing emphasis on the significance of interpersonal relationships on an individual's psychological development with John Bowlby's (1980; 1982; 1985) work on attachment being a foundation for a significant growing body of research. Central to attachment theory is the notion arising out of object relations theory that the influence of early childhood relationships shapes the nature of our interpersonal relationships extending across the lifespan, significantly effecting our emotional health and impacting on our ability to access emotional support.

This chapter outlines the development of attachment theory from Bowlby's early work into a broad body of literature exploring the impact of 'attachment styles' on interpersonal relations encompassing the breadth of human interactions across the lifespan.

3.1 The seminal work of John Bowlby

Early work by Bowlby in the 1950s explored the impact on children's development of separation from families as a result of becoming orphaned or being displaced during the upheavals of the Second World War. He speculated that psychosocial problems evidenced in these children were associated with traumas they experienced as a consequence of family loss and other traumatic war experiences (Bowlby, 1951).

Bowlby suggested that infants formed a strong emotional bond with their mothers and that under separation and loss conditions, children evidenced emotional distress and discernable patterns of behaviour. These early formulations collaborated evidence from animal studies of infants and their parents. Lorenz (1952) had found that goslings evidenced anxiety-like behaviour (chirping and searching) when separated from their parents. Later research with infant rhesus monkeys separated at birth from natural mothers found that infants preferred artificial fur-covered monkeys to surrogate 'wire mothers' that provided them with food (Harlow, 1958).

Bowlby and colleagues began to explore the impact on infants separated from mothers within a hospital setting. They found that infants and children (18 months to 4 years of age) who were separated from their mothers and placed in unfamiliar environments experienced intense emotional distress even when cared for by others and furthermore evidenced behaviour such as clinging or rejection of caregivers (Bowlby, Robertson, & Rosenbluth, 1952).

They noted a predictable pattern in their behaviour and identified three phases, which they labelled protest, despair and detachment. Infants and children began with angry protest (crying, screaming, showing anger) related to separation from the caregiver with dominant emotions being distress, fear and anger. Efforts by others to soothe children were found to have limited effect. This phase was followed by a period of despair with children withdrawing or disengaging and finally with detachment. In this phase children focused their attention on the environment and others and not on the caregiver. Most notably they appeared 'apathetic' at the parent's eventual return (Bowlby, et al., 1952).

These early parent-child observations of behaviour set the impetus for a now large body of international literature on attachment theory, which explores links between the quality of early childhood relational experiences with caregivers, personality development and psychosocial health consequential to these relational experiences. Central to attachment theory is the premise that attachment behaviour in children has a biological basis intended to increase caregiver proximity (usually the mother) when the child is distressed or in danger requiring care, comfort and protection (Bowlby, 1982).

Bowlby suggested that the attachment behavioural system is goal orientated toward maintaining a homeostatic state or security through maintaining a desired distance from the caregiver contingent on the environmental context and changing needs of the infant. In this way proximity is understood to be dynamic, changing with environmental conditions (i.e. external threats) and internal states (illness, hunger, pain etc).

Attachment behavioural systems are suggested to be evolutionarily adaptive ensuring not only the survival of the individual but also survival of the genes carried or 'reproductive fitness' (Simpson, 1999). In short, infants express attachment behaviour when distressed with the desire of gaining proximity to the caregiver who is the source of their care and protection. The unavailability or loss of the caregiver during these periods of need results in anxiety and distress.

Repeated experiences of this interaction between the child and caregiver develops into internalised beliefs based on experience as to the availability and ability of the care giver to provide care and protection and beliefs as to one's own value (Bowlby, 1980; 1982; 1985).

Within this context attachment theory can be understood as a theory of personality development focusing on interpersonal relationships and social-emotional development across the lifespan. Attachment is the overarching term that encompasses the state and behaviour of individuals in relation to maintaining emotional and physical security (Bartholomew, Kwong & Hart, 2001). These can be divided into secure and insecure attachment styles. To feel safe and secure within the context of others is understood to be secure attachment whilst insecure attachment can result in feelings of anxiety, irritability, fear of loss, rejection and vigilance (Holmes, 1993).

3.2 Infant attachment development

Infants appear to possess a range of behaviours that enable them to communicate and invite caregiver interaction and promote 'attachment'. At birth infants have broadening reciprocal ability to interact and communicate with those

around them, utilising a range of behaviours to communicate state conditions and process communication and responses they receive. Belsky and Cassidy (1994) have suggested that attachment behaviour in infants can be grouped into three broad categories that include behaviours that signal to a caregiver the infant's desire to initiate or maintain social interaction (i.e. smiling, gurgling and laughter); behaviours which are aversive to the mother and are intended to bring attention to the infant (i.e. crying) and physically active behaviours intended to maintain proximity to the caregiver (i.e. crawling).

Although the actual behaviour varies as the child ages and with the context, he/she finds the goal to elicit care and protection from others around them remains the same across the lifespan. These attachment behaviours promote proximity and interaction with the caregiver and enable care and protection to be provided when the infant is anxious or distressed. This anxiety or distress can arise from either within the child (i.e. hunger, illness, tiredness being hurt), from the environment (dangerous or frightening events) or from the caregiver (absence, non-responsiveness or threat) and activates attachment behaviours that promote both physical and psychological proximity to the caregiver.

In activation of attachment behaviour due to experiencing distress and anxiety, the child is unable to engage in 'exploratory behaviour' and developmental experiences such as play and social interaction. With the provision of care and protection the child attains a sense of security that allays anxiety and enables them to venture from the proximity of the caregiver to again explore the environment (Bartholomew, Kwong & Hart, 2002).

Bowlby (1982) suggested that the attachment bond between the infant and the caregiver is an organized behavioural system that functioned to protect the infant from danger and grew into the capacity for object permanence. With the caregiver's provision of safety and a 'secure base,' the infant developed a secure attachment to the caregiver extending this schema to other relationships and providing the ability to safely explore the world beyond this relationship. This system maintained a balance between exploratory behaviour and proximity seeking/maintaining behaviour. As discussed later these form interrelated behavioural systems that through their interplay form the foundations of a 'secure base' for the child to move from and return as they grow, learn and develop (Ainsworth, Blehar, Aters, & Wall, 1978).

This attachment behaviour is understood to be bi-directional between the child and the caregiver and which in turn forms behavioural patterns used in the context of other relationships over the lifespan. The nature of these behaviours change in the course of the lifespan and in the changing ecological context they are found, reflecting the nature and purpose of relationships such as friends, spouse and family members. Though the presentation of attachment behaviours changes with context and over the course of the lifespan, the function remains consistent in maintaining relational proximity consistent with internalised beliefs about oneself and others (Klohn & Bera, 1998).

A four phase framework in which to track the development of attachment in the first 24 months of the infant/child's life has been identified by developmental theorists (Bowlby, 1979; Shaffer, 1996) and include; non-discriminating social responsiveness, discriminating social responsiveness, clear attachment relationship

(goal orientated) and reciprocal relationships (see table 1). In phase one (the first two months of infancy) infants display a range of attachment behaviors that are indiscriminant and aimed at promoting proximity to caregivers. At birth infants are able to focus on gross facial features such as the hairline and the eyes but unable to discriminate individuals (Aslin, 1987). Infants also express preference for mother's faces and show the ability to track their caregiver visually focusing on the boundaries of visual stimuli (Bushnell, 2001), show ability to model caregiver behaviour (Meltzoff & Moore, 1983) and discriminate mother's speech from strangers (DeCasper & Fifer, 1980).

During phase two (3-6 months) the abilities of phase one become more discerning and directed at the primary attachment figure, usually the mother. During this phase the infant and parent become more attuned to each other's behaviours and mood as the beginnings of a pattern of attachment emerges. For example infants are more able to discriminate faces (Maura & Berrera, 1981) and produce discrete emotional expressions through facial expression (Izard, Huebner, Risser, McGinnes & Dougherty, 1980).

In the third phase (7-24 months) the toddler's repertoire of responses broaden and attachment behaviour consolidated. Within this period the toddler attains greater mobility and the beginnings of language. The toddler becomes discriminating in interactions with people with a primary focus on the caregiver and attachment behaviour such as crying, following and clinging more deliberately focused on eliciting proximity to the caregiver (Ainsworth, 1973). Although the caregiver becomes more strongly the focus of attachment behaviour by the child

(goal corrected) others become ‘subsidiary attachment figures’ whilst strangers begin to elicit fear, anxiety and withdrawal (Bowlby, 1982).

In the final phase the young child becomes increasingly independent through greater autonomy and earlier more ‘goal corrected’ behaviour is replaced with an awareness of the caregiver’s goals and plans or goal-corrected partnership (Bowlby, 1982). The child develops an understanding of not only their behaviour but develops the ability to infer aspects of the caregiver’s goals and plans. With this growing sense of the other Bowlby (1982) suggests that the child develops a more sophisticated complex ‘partnership’.

Table 1.

Stages of Parent Infant Interaction

Stage	Age (In Months)	Developmental task
Pre-attachment	0-2	Indiscriminate social responsiveness
Attachment in the making	2-7	Recognition of familiar people
Clear cut attachment	7-24	Separation protest, wariness of stranger’s intentional communication
Goal orientated partnership	24 onwards	Relationships become more two-sided, children perceive parent’s needs.

An important consequence discussed later in this chapter is the significant effect on the infant/child development in firstly the caregiver being emotionally unavailable or rejecting of proximity-promoting behaviour and secondly the impact of the caregiver who is both the source of danger and the source of intended proximity and safety for the infant and child.

From a developmental perspective the access of support and, more specifically the person one accesses, can be seen to change with maturation (Markiewicz et al., 2006). In early infancy and childhood parents are seen as a secure base that provide care and protection when the individual is in need, threatened or at risk (Ainsworth et al, 1978). In childhood and through adolescence this secure base adapts and broadens to include same-sex friends, peers, other adults and eventually romantic partners (Markiewicz et al., 2006). These changes in support from parents to peers have been found to progress through a number of stages with increasing security of the relationship including proximity seeking, creation of a safe haven and finally a secure base (Hazan & Zeifman, 1994).

From an Eriksonian stage perspective the infant is understood to attain a sense of increasing autonomy, built on attaining trust in the caregiver, as he/she acquires competencies to increasingly interact and explore their environment (i.e. walking, talking) culminating in a positive sense of self control (Erikson, 1963). Failure to achieve autonomy results in an internalised negative image of self and that the child is bad and inadequate.

Erikson emphasised the importance of psychosocial stages that focused on developing various competencies centring on relationships with significant others

across the lifespan. In early infancy the baby is dependent on the caregiver and learns basic trust or mistrust in the availability of care, protection and nurture in the caregiver's response to the infant's needs. These needs are satisfied by parents/caregivers in infancy and childhood, but soon expand to other key figures in the ecology as the individual matures and passes through developmental stages.

The importance of peers in an individual's ecology emerges in childhood and continues through out life with others providing support, companionship and the sharing of common interests with corresponding increases in autonomy. In this period same sex friends emerge to provide more emotional support in areas of intimacy and affection whilst parents provide more nurturance, the encouragement of self worth and provision of instrumental help (Furman & Buhrmester 1992).

In adolescence the individual enters a period of change with not only physical maturation, increasing independence and a changing nature of peer relationships but also revision of attachment relationships (Markiewicz, Lawford, Doyle & Haggart, 2006). As discussed later these attachment relationships continue to develop into the capacity to not only receive emotional support and protection but also become reciprocal where the individual is both the receiver of care and support but also a source as found in romantic relationships.

3.3 The attachment behavioural system.

Bowlby suggested that attachment-promoting behaviours arise from an organized attachment behavioural system that functions to protect the vulnerable infant from danger. This group of behaviours develops into the capacity, in a sense, for object permanence or more specifically the ability to maintain a desirable

distance from the safety, protection and care of the caregiver (Bowlby, 1982; 1985). As such, this suite of behaviours is goal orientated, focusing on achieving proximity to the caregiver and is dynamic in nature, changing and adapting as the individual matures and responds to the contexts in which they find themselves.

This ability grows from a general ‘diffuse sensitivity’ to other’s communication in infancy and increases in sensitivity and responsive proto-conversation by six months (Rochat, Querido & Striano, 1999). Unlike a reflex action such as a sneeze, which is a uniform response to a stimuli, a range of behaviours are demonstrated all having a ‘functional equivalence’ to attain proximity to the caregiver with a range of behaviours used to achieve the same outcome (Sroufe & Waters, 1977). In this way the child as a young infant maintains proximity to the caregiver through reaching out or crying, whilst as a toddler, can run to the caregiver or call out. The child is also able to apply flexible responses in the context of changes in the environment. So the same child may at first ‘grizzle’ to gain proximity but experiencing no response from the caregiver, begin to cry until proximity and soothing is attained. This allows for a stability of outcome, namely the child’s ‘goal’ of proximity to the caregiver, over developmental and contextual changes (Sroufe & Waters).

According to Bowlby (1982) the attachment behavioural system continuously functions to maintain a homeostatic balance of proximity (physical and psychological) and psychological availability between the child and the caregiver. Likened to a thermostat, the attachment behavioural system activates one of a range of behaviours likely to attain this proximity contextual to the environment. The infant/child continuously monitors the physical and psychological

availability of significant attachment figure and displays patterns of behaviour that are both instinctive and environmentally derived to promote proximity (Bowlby, 1969; 1982). When separated or distressed, anxiety results in initiating behaviour in the infant to re-establish proximity to the attachment figure. The provision of safety and comfort results in the calming of the infant's emotional distress (Bowlby, 1982).

The activation of the attachment behavioural system or 'thermostat' which initiates this range of proximity promoting behaviours is understood to be triggered by either internal factors (such as illness, being tired, hungry or in pain) or external factors (environmental factors perceived to be dangerous or threatening, or unavailability of the caregiver) (Bowlby, 1982; 1985).

Bowlby (1982) also postulated two further behavioural systems that interacted closely with the attachment behavioural system in the infant/child namely the exploratory and the fear behavioural systems.

3.4 The exploratory behavioural system

The exploratory and attachment behavioural system work closely to balance gathering information and experiences from the environment with the need for proximity to the caregiver who provides safety. The infant/child monitors the level of availability/safety provided by the caregiver and the stimuli that the environment provides promoting exploration. This is clearly evidenced in an infant/child's exploration of the environment and play as a consequence of being well fed, not tired and healthy (internal factors); the perception that the environment is safe and that the caregiver is in proximity (external factors). Exploration and play are

reduced or terminated should the infant/child experience either internal or external factors that activate the attachment behavioural system. In this way the caregiver provides a 'secure base' from which the infant/child can explore their environment and the stimulation it provides (Ainsworth., Blehar, Waters & Wall, 1978). With the caregiver's provision of safety and a 'secure base', the infant develops a secure attachment to the caregiver extending this schema to other relationships and providing the ability to safely explore the world beyond this relationship. This system maintains a balance between exploratory behaviour and proximity seeking/maintaining behaviour.

3.5 The fear behavioural system

The fear behavioural system is thought to work closely with the attachment behavioural system functioning to identify stimuli in the environment that are likely to pose danger to the infant/child. Bowlby suggested that this system was activated when 'natural cues to danger' (such as unfamiliar people, open places, darkness, loud noises etc.) or culturally learnt cues (gained through experience, observation or learning) culminated in the display of a range of fear-based behaviour (such as avoidance and withdrawal) and activation of the attachment behavioural system to promote proximity to the caregiver and safety (Bowlby, 1973).

Often both systems are activated together as evidenced when an infant/child experiences pain or senses danger (experienced as fear) and runs from the source toward the caregiver for safety. Bowlby (1973) suggested that these systems evolved to protect the vulnerable infant/child by maintaining proximity to the attachment figure and, when safe, exploring the environment.

3.6 The care giving system

A recent development in the literature has been the suggestion of a parental caregiving system that functions to provide protection and care to the infant/child. Bowlby (1982) earlier speculated that there existed an 'attachment caregiving social bond'. More recently George & Solomon (1999) have elaborated on this system and have suggest that the caregiving system is reciprocal to the attachment system of the infant/child and functions to protect the infant/child from danger.

The activation of the caregiving system, like the attachment behavioural system, is an attachment figure's response to internal and external factors associated with the infant/child perception of danger or stress which results in the initiation of a range of soothing/protective behaviours by the attachment figure (George & Solomon, 1999).

These soothing/protective attachment figure behaviours can include monitoring, picking up the infant/child, smiling, holding, enquiries of safety, increasing proximity and calling to ensure that the infant/child is safe. The use of this range of behaviours results in the activation of the attachment behavioural system in the child and the reduction of both their fear and anxiety. As infants appear to possess a range of behaviours that enable them to communicate and invite caregiver interaction and promote 'attachment', parents likewise have skills in accurately reading infant facial expressions (Izard, Huebner, Risser, McGinnes & Dougherty, 1980).

Bowlby (1988) suggested that behaviour of the attachment figure is likewise organised into a behavioural system. Cassidy (1999) suggests that the care giving

system is primarily focused on a subset of general parenting behaviours primarily related to the promotion of comfort, proximity and safety and which responds to behaviour of the infant/child requesting proximity (as generated by the attachment behavioural system). In this way the caregiver continuously monitors the physical and psychological safety of the infant/child and displays patterns of behaviour that are both instinctive and environmentally derived to promote proximity and lessen emotional distress for both the infant/child and the parent (George & Solomon, 1999).

3.7 Primary and secondary attachment behaviour.

Recent elaborations of attachment theory have proposed primary and secondary behavioural strategies in maintaining attachment to attachment figures (Main, 1990). The primary attachment strategies occur when the individual feels threatened and insecure and consequentially behaves in such a way as to re-establish proximity and emotional contact with the attachment figure. The secondary strategies arise when feelings of insecurity persist and primary strategies have failed to engage the attachment figure and provide needed security and emotional proximity.

Secondary strategies involve the deactivation or hyperactivation of primary attachment strategies with the avoidant attachment organization types emerging from a deactivation of primary attachment strategies, resulting from an internalized expectation that the attachment figure will not soothe the feeling of insecurity. An ambivalent attachment is understood as an hyperactivation of primary attachment strategies and results from confusion or uncertainty that the attachment figure will soothe the feelings of insecurity.

A two-dimensional representation of attachment types has been suggested in which primary attachment categorisation arises from a secure and insecure/anxious dichotomy and secondary strategies are assessed in the level of hyperactivation or deactivation of attachment behaviour (Kobak, Cole, Ferenz-Gillies, & Fleming, 1993).

3.8 Internal working models of self and others

Attachment theory suggests that early interpersonal experiences are internally organised into cognitive structures that influence interpersonal behaviour beyond childhood and adolescence into adulthood (Bowlby, 1980). The mental representation of the child/caregiver relationship are referred to as internalised working models (Bowlby, 1982, 1985).

Bowlby (1980) proposed that the repeated relational experiences between the infant/child and the caregiver, in the context of activation of the attachment behavioural system, sets in place the creation of a mental representation of self and the caregiver. These 'internalised working models' or 'representational models' enable the child to utilize a cognitive heuristic allowing the child to predict caregiver behaviour based on previous experience and adapt attachment behaviour to increase proximity. In this way internal working models form a system of expectations and beliefs concerning others and the self through which interactions with the caregiver are interpreted and predicted. Acquiring felt sense security in themselves and others then becomes integrated into personality structure.

These working models extend from early parent-child interactions to form the foundation of interpreting and guiding behaviour in subsequent interpersonal and intimate relationships across the lifespan (Bowlby, 1982). These cognitive schemes or working models are enduring psychological structures that process and organize information and affect, providing a template for an individual's interactions with others and the world, and consequently provide some explanation of the effects of early relational experiences on later behaviour and development (Blatt, 1995).

Cognitive theorists define schemas as core beliefs that set a framework from which the world and events are interpreted and sets foundations from which the individual constructs a sense of self. These schemas act as a filter through which interpersonal experiences and events are interpreted resulting in emotional responses consistent with these beliefs. Maladaptive schemas are understood as stable and enduring themes developed through childhood experiences which continue through adulthood and operate at a deep level (Young, 1990). Young (1990) suggests that a range of schemas (eg, I am a unlovable) evolve out of repeated interpersonal experiences, often with caregivers and significant others in childhood. Through these early experiences the individual develops an organising structure that selects, interprets and categorises experiences consistent with ones beliefs and expectations (Young, Klosko & Weishaar, 2003).

For example should a person experience repeated events in their childhood where their parents are uncaring and rejecting, they may develop cognitions concerning their self-value and the ability/intent of others to provide care. These repeated experiences over time form schemas which not only shape the individual's value in self and expectations of others but also creates a vulnerability to interpret

similar life events consistent with previous formative experiences, thus developing a negative bias or cognitive distortion.

Conversely, an individual experiencing repeated events of care and acceptance develops adaptive cognitions about themselves and others that are protective and when faced with adversity not only adopt a positive bias and belief in their ability to cope but also have adaptive beliefs that others are available to provide support, care and acceptance.

‘...it is plausible to suppose that each individual builds working models of the world and of himself in it, with the aid of which he perceives events, forecasts the future and constructs his plans. In the working model of the world that anyone builds a key feature is his notion of who his attachment figures are, where they may be found and they are expected to respond. Similarly, in the working model of the self that anyone builds a key feature is his notion of how acceptable or unacceptable he himself is in the eyes of his attachment figures.’ (Bowlby 1985, p 203).

As an individual achieves developmental milestones in cognitive ability through early childhood and on to adolescence, working models of attachment may be more open to modification and adaptation with each developed ability. Research literature in child development provides some evidence that the progressive acquisition of cognitive functioning through childhood, such as event representation, auto-biographical understanding, social cognition, theory of mind and memory systems may effect the acquisition of internal working models (Bretherton & Munholland, 1999).

It is in the parent-child explorative discourse concerning the child's everyday life events, their emotional responses to these events and the emotional and behavioural responses of others, that foster the development psychological insight of self and the development of broader cognitive functioning. Furthermore this understanding of self and of others are further expanded to include the child's relationship to peers, teachers and the general community (Welch-Ross, 1997).

During early childhood (3 to 5 years of age) significant development occurs in an individual's ability to appreciate another's thoughts, feelings or motives as children develop a theory of mind with parents being instrumental in shaping this development through clarifying others' thoughts feelings and motives to their children (Welch-Ross, 1997). This also extends to the development of autobiographical memory in which children develop the ability to create a story of self, integrating past and present experiences in the context of mother-child dialogues (Hudson, 1990) and the development of cognitive models of the world and their relationship to it (Nelson, 1996). It is in the shared discourse between child and adult that directs the development of many aspects of cognitive ability including theory of mind, memory systems (autobiographic memory) and cognitive models of the world (Nelson, 1996). Parent-child interactions over the child's early years of development foster the formation of an interpretive framework that not only allows the integration of significant past events but also filters and shapes the recall of these events. In this way the development of many cognitive abilities are collaboratively constructed (Nelson, 1996; Welch-Ross, 1997).

3.9 The work of Mary Ainsworth

The interplay of attachment systems in children and their parents was investigated in a novel laboratory experiment by Ainsworth, Blehar, Waters, and Wall (1978) designed to observe infant and mother interactions under low levels of infant distress.

An early colleague of Bowlby, Mary Ainsworth had noticed patterns in the nature of parent and child relationships following naturalistic studies of infant and mother interactions in Africa. On returning to the United States Ainsworth and her team began to explore children's expectations of the availability and responsiveness of identified attachment figures and their caregivers' ability to meet their infant's need for care and protection.

Ainsworth developed a standardized assessment procedure (the Strange Situation) that tested through observation levels of infant security experienced in the interaction with their caregiver under stress-provoking conditions. In the Strange Situation Ainsworth observed infant and parent behavior during a procedure that introduced mild infant stress (a strange environment, periodic presence of a stranger and brief separations from the parent) aimed at activating the infant's attachment behavioral system.

In the experiment mother and infant are observed over a 20-minute period as they move through a number of tasks beginning with the mother and infant entering a playroom and playing with toys. A stranger soon joins them. Whilst the infant is engaged in play with the stranger, the mother leaves the room for some moments and then returns with the stranger subsequently leaving. After some moments the mother also leaves the room with the infant being left alone. Finally the stranger

returns and plays with the child and is followed three minutes later by the mother (Ainsworth et al., 1978).

A balance between attachment behavior (proximity seeking) and exploration of the environment by the infant is understood as optimal with infant responses to the two reunion episodes coded along four dimensions; proximity seeking, contact maintenance, resistance and avoidance.

Consistent with Bowlby's theory of attachment, Ainsworth et al., (1978) identified three attachment styles through the relational interactions observed in the strange situation experiment and home based follow up observations.

1. *Securely attached style (B)*. Upon reunion with the caregiver, the secure infant sought comfort and contact with the caregiver before again playing with the toys. In this way the caregiver's presence prior to separation provided a sense of security in their availability for comfort or support which enabled the infant to attend to exploration and play. In the reunion episodes secure infants evidence a readiness to approach and interact with the caregiver. Follow-up observations at home found caregivers to be sensitive and responsive to infant's need for security. Secure attachment was found where the attachment figure had provided consistent, secure and predictable contact for the infant and consequentially the infant was enabled to explore the world even when separated from the care giver, seeking interaction and connection with him/her upon their return.

2. *Insecure anxious-ambivalence attachment (C)*. This group of infants was highly preoccupied with the caregiver resulting in the infant's inability to be comforted and ambivalence toward caregiver contact. The infant was highly focused on the attachment figure, fearful about their departure, clinging to the person upon separation and dependent on their reunion. As a consequence there was reluctance to explore the environment. The infants in this group would cry for proximity to the caregiver and during reunion would be highly agitated and angry, struggling when picked up and refusing comfort. Follow-up observations of this group provided evidence that caregivers were often inconsistent in their caregiving sometimes being intrusive whilst other times being unresponsive or unavailable.

3. *Insecure avoidant attachment (A)*. This group of infants evidenced little or no proximity seeking behaviour, tending to ignore the caregiver (averting their gaze, turning and moving away) whilst also evidencing heightened exploratory behaviour in playing with toys and exploring the room. These avoidant children appeared to have little need for the attachment figure and exhibited little distress when left alone even interacting more actively with the stranger and the caregiver. Observations at home suggested that infants' needs for care were often snubbed and the parents were often rigid and rejecting in their interactions with the child.

In essence infants with insecure attachment (Ambivalent and Avoidant) were not able to gain sufficient levels of security from their caregiver in response to attachment behaviour which limited exploratory behaviour.

A fourth group of infants have subsequently been identified that show no consistent organized behaviour during the strange situation. They have been labelled disorganized-disorientated (D) attachment (Main & Solomon, 1986). These children were found to have no coherent attachment style when presented with separation from a primary attachment figure.

When exposed to the anxiety of the care giver leaving and returning in the strange situation infants would initially seek proximity and suddenly exhibit avoidance, freeze or display dazed behaviour (Main & Soloman, 1986). These infants may also respond to reunion with behaviour such as freezing, rocking or ear pulling. It is suggested that this behaviour represents the infants fear response to a frightening parent and/or an unresolved attachment trauma and arises where caregivers are neglectful or abusive (Main & Hesse, 1990). The infants are unable to develop an organised pattern of attachment as the source of comfort and protection was likely to also be a source of fear, rejection or absence.

Using this research design allows the clinician to observe the parent and child relationship in action and in so doing recognize strategies children use to promote care and protection. The observable attachment relationship between child and parent enables the researcher to develop clinical hypotheses linking past relational experiences with current observed attachment behaviour. Support for this has been found in research which suggested strong links between insecure-disorganized attachment and child maltreatment (Lyons-Ruth, Repacholi, McLeod, & Silva, 1991), parental depression, bipolar disorder and alcoholism (Lyons-Ruth & Jacobvitz, 1999) and unresolved mourning (Main & Hesse, 1990).

3.10 The work of Patricia Crittenden

Crittenden (1997a; 2006) suggested a dynamic maturational model where attachment security arises from an interplay of evolution in brain physiology, mental maturation and experiences that provide information that predicts danger and which allow for integration.

The model emphasizes that attachment is the dynamic interrelationship between maturation and adaptation where attachment behaviour and internalized working models change with experiences over the course of the life span. Within this model attachment behaviour emerges and reflects learned patterns of mental management of both cognitive and affective information with the purpose of predicting and adapting to danger and promoting opportunities for reproduction and is determined from a neurobiological base (Crittenden, 1988; 2000). In this way internal working models can be accessed through both declarative memory (assessable to verbal recall) or through non declarative means where the experience of early childhood attachment interactions are encoded in patterns of behaviour and affect (Crittenden, 1988).

Crittenden's conceptualisation of attachment suggests that early infants' relational experiences with their caregivers imprint at a neurobiological level and shape both their cognitive and affective responses to loss/danger in relation to attachment figures across the life span.

Crittenden (1995) argued that a Triune brain structure (MacClean, 1990) has various levels of the brain function that process an individual's experiences and information based on brain architectural evolution (the brain stem, the reptilian

brain, the paleo-mammalian limbic system and cerebral cortex). Within this neurological architecture early infant experiences of danger are processed at a reflexive sensory and pre-cortical level (brain stem) utilizing operant learning principles where temporal order determines causal attribution. This processing is supplemented by the midbrain that introduces simple associative learning and affective responses from the limbic system (evolutionarily coded information concerning danger) which together process danger unconsciously (Crittenden, 1995; 1997b). The final neurological structure evolves and grows incorporating experiences as the cerebral cortex develops, primarily after birth, maturing through adolescence and early adulthood and functioning to integrate information from structures beneath.

Crittenden (1995) suggested that repeated experiences of danger on the young infant's immature neurological structure results in distortions of either/both cognitive and affective processing of information that in extreme cases of abuse result in psychopathology. Parents who respond to infant's affect and their reflexive and conditioned behaviour with predictable comforting, set learning conditions that foster a security that infant attachment behaviour will result in predictable care and comforting resulting in secure attachment. Insecure attachment arises from infant experience of rejection or inconsistent response to attachment behaviour when in danger or discomfort (Crittenden).

‘... at the close of infancy, infants who are labeled secure have learned the predictive and communicative value of many interpersonal signals; they have made meaning of both cognition and affect. Avoidant infants, on the other hand, have learned to organize their behaviour without being able to interpret or use affective signals; that is, they have made sense of cognition

but not affect. Ambivalent infants have been reinforced for affective behaviour but have not learned a cognitive organization that reduces inconsistency of their mothers behaviour' (Crittenden, 1995; p. 371).

Within the first year of life infants develop adaptive and functional coping strategies for dealing with anxiety. Infants with Defended (A) and Integrated (B) attachment style learn to ignore attachment anxiety either in learning that the caregiver's response is unlikely or from secure integrated attachment, that attachment anxiety can be effectively communicated and will be understood and responded to with care in a predictable manner. Infants with Coercive (C) attachment fail to develop an organised strategy due to the inconsistency of caregiver responses (Crittenden, 2006). A basic tenant of Crittenden's theory is that all learned attachment behaviour is functional and adaptive to the particular experiences of child has (i.e. loss, sickness and separation) in relationship to the caregiver and functions to increase the probability of survival (Crittenden, 1997b) .

In this model infants and children develop secure attachment through successive experiences of care and protection when they feel threatened or uncomfortable. These self-protective strategies evolve through adolescence as attachment behaviour becomes more reciprocal to include peers and romantic relationships.

Crittenden suggests that attachment relationships comprise three components including patterns of relationship, patterns of processing information and self-protective strategies. Patterns of relationship in infancy focus on protection and comfort of the infant being non-reciprocal in nature in the provision of this care and

comfort. Increasing personal competence and ongoing need, care and protection from the caregiver are understood to be dynamic in nature ever changing with development and context (Crittenden, 1995). With maturation the child learns increasingly to manage distress, learn self-protective strategies and ability to reciprocate care. In childhood and adolescence the pattern of relationship shifts from the exclusivity of caregivers providing care and protection expanding to include peers focusing first on 'best friends', then peers and romantic relationships in adolescence. Crittenden (1995) argues that the broadening of attachment ties comes with increasing complexity of attachment relationships.

3.11 The influence of temperament

Temperament arises from our genetic heritage and has been defined as individual differences in reactivity (excitability, responsivity or arousability) and self regulation used to modulate reactivity assumed to have a constitutional basis (Rothbart & Derryberry, 1981). Recent literature has emphasised the interactive and bi-directional nature of the child and caregiver relationship with the child's biological inheritance and temperament affecting caregiver responses (Bates, Pettit & Dodge, 1995). Collins, et al., (2000) suggest that a complex interplay between biological factors, the environmental and social forces influence eventual child development outcomes.

The temperament of a child may interact with parenting practice resulting in differences in attachment style emanating from parent-child interaction. In this way an infant whose temperament is perceived and experienced as difficult, often distressed and emotionally reactive may elicit parenting practice with less care and use of behavioural control than an infant with more 'manageable' temperamental

behaviour. From this interaction differences in the child's temperament act indirectly on attachment formation by influencing parent and child interactions and parenting style used by the parent (Vaughn & Bost, 1999). The temperament of children and parental sensitivity have been found to be a significant factor in children's ability to regulate affect and in turn possibly effect attachment interactions between infant and caregiver (Vaughn & Bost, 1999) and is thought to become evident early in infancy, show stability over time and can be modified with experience (Collins, Maccoby, Stienberg, Hetherington & Bornstein, 2000).

Research has found correlations between temperamental characteristics and parental behaviour suggesting a bi-directional interaction where the child's temperamental quality influences the quality of parenting provided by the caregiver (Collins, et al., 2000). Indeed temperamental factors appear to impact to some degree on the development of secure and insecure attachment styles (Seifer, Schiller, Sameroff, Resnick & Riordan 1996) whilst quality of parenting moderates later externalising behaviour for temperamentally difficult children (see Rothbart & Bates, 1998 for a review). The relative importance of biological determinants and temperament in the formation of attachment appears unresolved in the literature. In a large review of the literature Vaughn and Bost (1999) found that caregiver reports of infant temperament and eventual attachment as generally measured in strange situation protocol had a weak inconsistent relationship. Vaughn and Bost (1999) put forward a number of explanations for the possible temperament and attachment relationship suggesting that firstly research does not support a relationship, secondly that temperament is an added stressor to parents resulting in poorer quality care giving practice influencing attachment security and finally that both temperament

and attachment both arise from infant and caregiver interactions but do not form a causal relationship (Vaughn & Bost, 1999).

More recent research found that attachment styles of children diagnosed with Attention Deficit Hyperactivity Disorder were significantly influenced by an interaction of temperamental factors and parental practice (Finzi-Dottan, Manor & Tyano, 2006). The study found that parenting which set poor behavioural boundaries (permissive parenting style) exacerbated children's inability to regulate affect resulting in increased prevalence of anxious attachment. The over use of intrusive and controlling parenting practice (authoritarian parenting style) in the face of the child's hyperactive behaviour resulted in avoidant attachment (Finzi-Dottan, Manor & Tyano, 2006).

3.12 Intergenerational transfer of attachment

The intergenerational nature of attachment style development has been implicated in child development research where parental responses to their children's attachment have been found to be consistent with the caregiver's own attachment experiences (Ainsworth, et al., 1978; Main, 1990; Main & Goldwyn, 1994; Rosenstien & Horowitz, 1996; van Ijzendoorn, 1995; Ward & Carlson, 1995). Studies have found that attachment styles identified by the Adult Attachment Interview (AAI; George, Kaplan & Main, 1985) indeed predict the subsequent quality of child and parent relationships in infancy (Fonagy, Steel & Steel, 1991).

In a cross sectional study across three generations Benoit and Parker (1994) found 75% correspondence between mothers adult attachment styles with their adult daughters supporting the intergenerational transfer of attachment. In a

meta-analytic review of 18 studies van Ijzendoorn (1995) found a significant correlation between adult attachment and infant attachment styles assessed through the 'Strange Situation' procedure. Insecurely attached adults were found to ignore or distort their child's attachment behaviour as these behaviours triggered their own unresolved attachment needs and their working model of attachment (Main & Hess, 1990). This evidence for the perpetuating nature of attachment from one generation to the next suggests that a parent's own early attachment experiences and subsequent attachment behaviour strongly influences the interpersonal relationship they develop with their children and is a strong predictor of the child's own eventual attachment style.

Maternal behaviour toward the child is influenced by the mothers own attachment experiences structuring her own attachment style. This interpersonal style is internalised by the child through repeated interactions with the attachment figure as parents identify their child in context of their own childhood attachment experience and the child often fulfilling parents unsatisfied childhood attachment needs. Caregivers with secure attachment based on an experience of consistent care and protective responses to their own distress are more likely to respond to their infant's attachment behaviour. Caregivers experiencing ongoing insecure attachment are more likely to misinterpret, minimise or even ignore the attachment behaviour of their child with activation of their own attachment system and learnt coping behaviour. For example, maternal depression and a preoccupied attachment style may give rise to the parent gaining her attachment needs from the child and facilitating an over focus by the child on the depressed parent. This in turn minimizes the child's development of skills to regulate their own negative affect and

the acquisition of a similar attachment style to the parent (Rosenstien & Horowitz, 1996).

3.13 Stability of attachment over time

Whilst studies have found stability in attachment classifications in early childhood at age six (Elicker & Sroufe, 1992; Main & Cassidy, 1988), age 10 (Grossman & Grossman, 1991), and through to mid adolescence (Urban, Carlson, Egeland & Srouf, 1991) research into the stability of attachment styles using the Strange Situation protocol have reported differing estimates of stability with classifications in young children changing in a six month period (Belsky, Campbell, Cohn & More, 1996). These studies suggest that internalised attachment schemas may be responsive to change over the lifespan with change arising from experiences in subsequent relationships that disconfirm childhood experiences (Klohen & Bera, 1998).

As an individual achieves developmental milestones in cognitive ability through early childhood and on to adolescence, working models of attachment may be more open to modification and adaptation with each developed ability. Research literature in child development provides some evidence that the progressive acquisition of cognitive functioning through childhood, such as event representation, auto-biographical understanding, social cognition, theory of mind and memory systems may affect the acquisition of internal working models (Bretherton & Munholland, 1999). Early attachment experiences are important in the formation of attachment styles but can be influenced and transformed by later experiences (Klohen & Bera, 1998; Sroufe, Carlson, Levy & Egeland, 1999). Early internalised working models emerging from relationships to significant care-givers

in infancy are further mediated through parent-child discourse through the child's stages of maturation and into adolescence (Thompson, 2000).

Evidence for changing attachment style has come from the exploration of family dynamics during periods of change. Introduced stresses on the family and changes in family living conditions have been found to change family interaction patterns and consequently attachment security (Teti, Sakin, Kucera, Corns & Das Eiden, 1996). The research team found that attachment security of first born children were effected by birth of a sibling, co-occurring psychopathology of the mother, levels of parental harmony and the extent to which emotional involvement was maintained with the first born. This supports Bowlby's earlier work on developmental pathways that incorporated the potential for change whereby ones early attachment style is able to change through subsequent attachment experiences that challenge and modify how an individual interacts with others (Bowlby, 1980).

Bowlby believed strongly in a theory of attachment that was dynamic and one open to review, learning and modelling especially through the subsequent adult relationships and the therapeutic process (Bowlby, 1980). Bowlby (1982) suggested that insecure attachment developed though repeated parent child interactions in childhood were adaptable to change through subsequent positive interpersonal interactions with significant others over the course of the lifespan. Adult experiences where the individual's needs for comfort, support and protection are responded to through adult friendship, intimate relationships and the therapeutic relationship disconfirm expectations evolved from childhood and potentially move the individual from insecure attachment toward more secure beliefs about self and others and related attachment behaviour. Thompson (2000) suggests that security of attachment

and associated internal working models change over the life span integrating new experiences that confirm or challenge older models learnt in early childhood with change being more possible during times of developmental transition where they may be more malleable to revision and change. Insecure attachment styles have been found to be adaptable to subsequent corrective experiences that disconfirm childhood experiences. Kirkpatrick and Hazan (1994) found that respondents with insecure attachment were most likely to change toward secure attachment with this change possibly attributed to intimate relationships that challenge childhood attachment experiences.

3.14 Attachment and psychosocial health consequences

Bowlby presented considerable evidence suggesting that separation, loss or trauma in relation to the attachment figure (often the parent) was associated with a variety of psychosocial disorders but that these could be influenced by various relationships including therapeutic relationships and relationships with significant others (Bowlby 1973, 1980, 1982). In a large United States sample of the general population avoidant attachment were found to correlate with maternal depression and paternal substance abuse whilst participants with anxious attachment were more likely to have experienced violence between their parents, heightened maternal anxiety, parental separation and divorce whilst personally experiencing physical abuse and neglect (Mickelson, Kessler, Shaver, 1997). Dismissing attachment has been found to be associated with disorders that minimize personal and emotional distress such as substance abuse conduct disorders and narcissistic or antisocial personality disorder whilst preoccupied attachment was associated with increased personal and emotional distress including affective disorders and histrionic or borderline personality disorders (Rosenstien & Horowitz, 1996). This is further

supported in research conducted by Cole-Detke and Koback (1996) who found women with hyperactivating or preoccupied attachment reported increased depression whilst women with deactivating or dismissive attachment reported increased eating disorder symptoms.

Toth and Cicchetti (1996) found that the pattern of attachment to mothers significantly contributed to symptoms of depression and negative impressions of social acceptance with confused patterns of relating associated with increased depression and disengaging patterns impairing social acceptance in both clinical and non clinical samples of sexually abused young women. Graham and Easterbrooks (2000) explored a range of risk factors for depression including attachment security, maternal depression and socio-economic variables. In spite of poor family socio-economic conditions and maternal depression securely attached children evidenced reduced risk of depression whilst children with insecure attachment evidenced increased depressive symptoms. The authors suggested that secure attachment provided a level of resilience to children to cope with socio economic difficulty in the family and periods where the mother may have reduced capacity due to depression.

In a recent study Gullone, Ollendick and King (2006) explored the relationship of attachment security to social withdrawal and childhood depressive symptoms in children aged 8-10 years of age. They found that the lower levels of attachment security resulted in increased levels of depressive symptomatology whilst social withdrawal and depressive symptoms were greatly reduced in more securely attached children (Gullone et al., 2006).

Griffen and Bartholomew (1994a) found that preoccupied and fearful attachment styles which share a poor model of self were predicted by the Neuroticism scale of the NEO Personality Inventory (Costa & McCrea, 1985). In a clinical study of adult female patients with borderline personality disorder, Patrick, Hobson, Castle, Howard and Maughan (1994) found a predominance of participants were categorised with a preoccupied classification and unresolved patterns in response to the Adult Attachment Interview (AAI: George, Kaplan, & Main, 1985). Many participants reported low maternal care and high maternal overprotection (Hobson et al., 1994).

The impact of unresolved trauma and loss was also found in a recent study of inpatients surviving trauma. Riggs, Paulson, Tunnell, Sahl, Atkison and Ross (2007) compared the AAI and the self report Experiences in Close Relationship (ECR: Brennan et al., 1998) on measures of personality and dissociation. The sample was found to have a predominantly fearful attachment (high anxiety and avoidance) using the ECR and evidenced a range of significant personality and symptomology on the MCMI-III (Million, 1994) including avoidant, depressive, histrionic, narcissistic and self defeating personality scores and symptoms of dysthymia major depression and post traumatic stress disorder. These results suggested difficulties in the social domain with poor sense of self worth consistent with both a poor sense of self and the others. Unresolved trauma was found to be associated with measures of dissociation, PTSD, schizotypal and borderline personality disorder whilst neither unresolved loss or trauma was associated with symptoms of depression (Riggs et al., 2007).

Attachment theory also provides a theoretical framework to understand the impact of various forms of abuse on both adult psychological health but more broadly on interpersonal relationships (Lyons-Ruth & Jacobvitz, 1999). Principle to attachment theory is the assertion that successive interactions between the child and adult shape a child's behaviour to maximize the provision of care and protection from the adult. With parental abuse the source of care soothing and protection also becomes a source of harm and danger resulting in the development of an insecure model of interpersonal relationships and increased negative psychosocial health outcomes.

The experience of abuse in childhood has a disorganising effect on their ability to form attachment relationships and as a consequence they develop strategies over the lifespan that promote self-reliance and control over all aspects of their environment (Lyons-Ruth & Jacobvitz, 1999). From an attachment perspective the presence of both physical and sexual abuse impacts significantly in the development of secure attachment relationships whereby the individual has difficulty in establishing and maintaining a secure interpersonal base (Crittenden & Ainsworth, 1989; Crittenden, 1995). Together the research into attachment highlights the enduring impact of early parent child relationships across the lifespan.

3.15 Attachment and parenting within an ecological context.

The current and previous chapter have outlined the theoretical development of both parenting and attachment literature with a strong emphasis of the bi-directional nature of interpersonal relationships all set within the context of the broader family and community ecology. Though the multiplicity and bi directional nature of human relationships in a family system are recognised, attachment and

family systems theories differ somewhat in their focus. Family systems theory (Minuchin, 1985) and bioecological models (Bronfenbrenner, 1979, 1994) broadly explore inter-relationships in the context of families and broader social systems whilst attachment theory (Ainsworth, 1978; Bowlby, 1980, 1982, 1985) has tended toward the primacy of the caregiver and child relationship as the foundation for broader relationships.

The previous chapter provided an overview of the importance of parenting practice on healthy adjustment where emotional warmth and responsive involvement, granting psychological autonomy and clear boundaries and monitoring resulted in healthy adjustment (Baumrind, 1991b; Maccoby & Martin, 1983; Stienberg et al., 1991). This ‘authoritative’ parenting style shares many similarities with the conditions required to foster the development of a secure attachment. In a study of attachment styles and participant representations of their parents Levy, Blatt and Shaver (1998) found that participant’s attachment style was associated with their recall of parental qualities. Using both Hazan and Shavers’ (1987) tripartite attachment instrument and Bartholomew and Horowitz’s (1991) insecure attachment styles (anxious and avoidant) the research team found recollections more punitive parenting were related and ambivalent attachment styles. Results using the four factor model highlighted that participants with secure attachment were found to have recollections of both maternal and paternal parenting as more benevolent with less paternal ambivalence and punitiveness than preoccupied and fearful attachment styles. Paternal benevolence was found to be associated with dismissive attachment style (Levy, et al., 1998).

Chorpita and Barlow (1998) developed a model of anxiety integrating attachment theory parenting and animal studies. They suggested that the level to which a child develops a sense of control over their lives and environment has an impact on the development of anxiety. Drawing on attachment theory Chorpita and Barlow suggest that children develop a belief that they can elicit emotional warmth from others through parents consistently providing emotional warmth and comfort when the child is in need. Furthermore, high levels of parental control of a child's behaviour results in the development of internalised beliefs that promote the limited ability to influence a child's environment. High parental control, inconsistent and low emotional warmth result in a learnt helplessness that places the child at significant risk to develop anxiety. Parenting practice as measured by the Parental Bonding Instrument (PBI; Parker, 1983) has been found to impact significantly on measures of attachment with low maternal and paternal care and high maternal control increasing anxious attachment (Carnelley, Pietromonaco & Jaffe, 1994; Mickelson, Kessler & Shaver; 1997).

The impact of paternal parenting has been found to be inconsistent with paternal control correlated with fearful/avoidant attachment in some studies (Carnelley et al.) whilst also reducing avoidant attachment (Michelson et al.). Correlations have also been found between the AAI and care and protection scales of the PBI though these were only for maternal recollections of parenting suggesting importance of the mother child relationship (Manassis, Owens, Adam, West & Sheldon-Keller 1999). Recollections of high maternal care and low over protection were found to be associated with autonomous secure attachment whilst low care and overprotection resulted in unresolved attachment. As highlighted dismissing attachment arises from childhood experiences whereby the parent is rejecting or is

unresponsive to attachment behaviour demonstrated by the child when in need of care and protection. This was born out in the relationship between low measures of protection and dismissing attachment style as measured in the AAI (Manassis et al.,).

Nickell, et al., (2002) examined the relationship between negative aspects of parenting practice, attachment style and features of borderline personality disorder in a non-clinical sample. The research team found that aspects of parental bonding and attachment patterns significantly contributed to borderline personality feature after controlling for axis I and axis II pathology. In particular were negative perceptions of maternal care, maternal over protection, maternal encouragement of autonomy negatively scored secure attachment and both anxious and ambivalent attachment style. Similar results implicated both maternal and paternal lack of emotional warmth, rejection and over protection in both internalizing and externalizing behaviour, aggression and delinquency. Furthermore, those reporting secure attachment perceived their parents as emotionally warm, less rejecting and overprotective than insecurely attached adolescents. When combining parenting practice and attachment to predict internalizing and externalizing behaviour, both were significant for internalizing behaviour and only parenting practice was significant for externalizing behaviour, with this being stronger for females than males in the sample.

Though there is evidence for the general impact of parenting practice on attachment formation the gender of parents and their children have also been found to influence the nature of this relationship. The relationship between attachment and parenting practice have been found to be two significant factors in children

experiencing worry Muis, et al., (2000). Children who experienced parental rejection and overprotection reported increased levels of worry with this relationship more prevalent in children with an insecure attachment. In a recent study Roelofs et al., (2006) found that insecure attachment in children was significantly related to parental rejection, over protection, anxious parenting and low levels of emotional warmth. These results were generally found irrespective of the gender of the child.

In exploring the unique contribution of both maternal and paternal parenting practice on internalising behaviour (symptoms of depression and anxiety) and externalising behaviour (anti social and aggressive behaviour) in male and female children the research team found support for a gender specific relationship between the gender of parents and their children. Female children in the sample experienced increased symptoms of anxiety, depression and aggression when likewise experiencing maternal rejection, and to a less degree maternal over protection. For male children paternal rejection, insecure paternal attachment and anxious maternal parenting increased symptoms of depression whilst maternal rejection increased anxiety. Aggression in male and female children was linked to same sex parental rejection. Gender specific relationships between parenting practice, attachment and psychosocial health measures evidencing a relationship between maternal and paternal practice and the gender of the child have been inconsistently found in research. Maternal parenting practice has been found to significantly impact on the presentation of borderline personality disorder (Nickel, et al., 2002) whilst no gender specific relationship was found in externalising and internalising behaviour (Muris, et al., 2003).

Adaptive early attachment relationships with parents provide a predictable secure foundation for the young child to retreat to when in need. In essence this relationship is unidirectional in the provision of care and support. Through adolescence the individual develops and integrates not only attachment behaviour to elicit support and protection from others but also the ability to offer security and care to friends and others in the multiple systems they interact with (Markiewicz et al., 2006). In this way the individual learns to be both the recipient of care and support and the 'safe haven' that others in the ecology can access. The influence of broader systemic influences of human behaviour, development and adjustment are argued to provide a more integrated and efficacious model for treatment (Bronfenbrenner, 1986, Minuchin 1985; Henggeler et al., 1998).

Recently Kozłowska & Hanney (2002) have suggested a model that attempts to integrate both attachment theory and family systems theory in a dynamic 'living systems' theory where each system remains distinct but still interacts with distinct broader systems. The network model they propose suggests that the individual exists in distinct independent systems that vary in levels of complexity (ie. attachment dyad vs. broader family) whilst maintaining bi-directional interrelationship and interconnection with multiple configurations some of which are invariably not accounted for both in research and clinical practice (Kozłowska & Hanney, 2002).

"... the dyad can be understood as a distinct pattern which nests within another distinct pattern another distinct pattern, the family. The connections between the individual parts occur in the form of a network. One can view each pattern from the perspective of the 'whole' (e.g., the dyad) or from the perspective of the 'part' (the dyad as part of the family). However the lens can never be focused on the pattern of the dyad and the family at the same

time. Looking at both patterns requires the clinician to focus and refocus the lens, moving backward and forward between patterns' (Kozłowska & Hanney, 2002. p. 293).

Though attachment can be understood from a family system perspective broader systemic factors such as culture and socio economic factors also have been found to significantly influence attachment behaviour (Harwood, Miller & Irizarry, 1995). These findings emphasise that an individual is a member of multiple groups or systems at any one time or different groups across their lifespan. These groups include family, friends and neighbours, are set within social groups (employment, education) and cultural communities (socioeconomic, religious, ethnicities). From this perspective developmental and attachment research moves from simple dyadic understandings of interpersonal development to a broader social context model that encompasses the multiplicity of interactions across the lifespan (Lewis, 2005; Lewis & Takahashi, 2005).

3.16 Extending attachment styles to romantic relationships

Attachment theory has offered a robust theoretical framework to understand the nature of interpersonal relationships and in particular the development of behavioural systems that maximize the provision of care and support within the context of romantic relationships. Bowlby (1982) made a strong case that attachment is malleable and open to modification with subsequent relationships that adapt early internal working models, with romantic relationships a significant influence of change. As discussed Bowlby (1980; 1982; 1985) suggested that attachment promoting behaviours arise from an organized attachment behavioural system or working model that functions to protect the vulnerable infant from danger.

This group of behaviours develops into the capacity and ability to maintain safety, protection and care by the caregiver in times of distress or need. As such this suite of behaviours is goal orientated having a 'functional equivalence' to attain proximity to the caregiver and is dynamic in nature changing and adapting as the individual matures over the lifespan (Sroufe & Waters, 1977). This internal working model acts as a heuristic governing perceptions and expectation of other's ability to provide comfort and safety and a working model of self as worthy of comfort and care (Bartholomew, 1990).

Experiences of care givers providing consistent care and security in times of need develop into a secure model of attachment with expectations and beliefs that others will be able to provide emotional support when they are in need and a sense of self worth to receive this support. Conversely, individuals with insecure attachment experience inconsistent, rejecting or role reversing parenting during early childhood resulting in high levels of relationship anxiety and avoidance and a lower likelihood of searching out support due to maladaptive working models of others and of self (Bartholomew, 1990; Brennan & Shaver, 1995; Bretherton & Munholland, 1999; Fairchild & Finney, 2006).

In a recent study (Markiewicz, et al., 2006) analysed attachment functions (proximity seeking, safe haven and a secure base) provided by parents, peers and romantic relationships across a range of age groups. Though mothers were found to provide a secure base across age groups the importance of the partner in providing a secure base was related to the level of attachment insecurity exhibited by the respondent. This transition of attachment functions from parents to others is evidenced in Hazan and Zeifman's (1994) early work with adolescents that

highlighted the shifting responsibility of care and support from parents to peers and romantic partners.

Early work by Hazan and Shaver (1987) suggested that parent and child patterns of attachment behaviour were similar in nature to romantic relationships. As outlined, Bowlby (1982) suggested that the infant and the caregiver develop an attachment bond between which functions as an organized behavioral system designed to protect the infant from danger. This behavioural system maintains a balance between exploratory behaviour and proximity seeking maintaining behaviour for the child with the caregivers providing a secure base to return to in time of distress or danger (Ainsworth, et al., 1978). Though dynamic in nature care and protection is directed from the caregiver to the child. In healthy adult romantic relationships the role of caregiver and care receiver are reversible (Hazan and Shaver, 1987). In this way both members of a romantic partnership will at times require emotional support and at times be called upon to provide similar care and support.

There are significant differences in adult attachment relationships that are not present in the child and caregiver relationship most notably it's reciprocal nature. Adult relationships function to provide equally in their provision of safety and care but in also requiring these same qualities this is evidenced most strongly in romantic relationships (Hazan & Zeiferman, 1999). In a mature and healthy functioning adult romantic relationship both members have a dual role as both the source of care, and also the recipient of care in this way functioning as both the attachment figure and attached person. Furthermore, the exploratory behavioural system that functioned in

childhood to move away from the attachment figure becomes an exploration of shared interests, goals and focus with the attached partner (Crittenden, 2000).

This reciprocal relationship is further complicated by sexuality which Hazan and Shaver (1987) suggest is a third behavioural system interacting with attachment behaviour that elicits care from another whilst also being a source of care and comfort. As described in the ensuing chapter early conceptualizations of romantic attachment were based on Ainsworths et al., (1987) tripartite model of attachment including secure, avoidant and anxious-ambivalent styles. Hazan and Shaver found that participants with a secure attachment style reported better satisfaction in romantic relationships with characteristics including trust, happiness and a sense that love did not fade with time, also reporting memories of close and warm family relationships. Anxious-ambivalent participants reported strong feeling of jealousy, emotional extremes, reluctance to commit to relationships, extreme sexual attraction and a strong desire for deep union with the other person. They described reluctance to become emotionally close to others due to fear that the relationship would end and as a result often pushed away people who were emotionally close. Finally, avoidant participants reported difficulty in accepting partners, a fear of intimacy, thoughts that partners wanted them to be emotionally closer and a transience of romantic love feelings. These participants reported family relational experiences as rejecting and cold.

The quality and satisfaction of romantic relationships have been found to influenced by attachment style (Collins & Read, 1990; Collins, 1996; Feeney, 1999; Feeney, Noller, & Hanrahan 1994). Research into romantic attachment has found secure attachment to increase the reported quality and satisfaction of romantic

relationships with increased levels of trust and the tendency for relationships to last longer (Collins & Read, 1990; Feeney & Noller, 1990; Hazan & Shaver, 1987; Klohnen & Bera, 1998; Moller, Hwang & Wickberg, 2006; Mikulincer & Nachshon, 1991). Secure attachment has also been found to correlate with increased levels of self esteem, self worth, and self confidence whilst also lower levels of loneliness (Collins & Read, 1990; Feeney & Noller, 1990; Hazan & Shaver, 1987). It has also been found to increase the discussion of intimate topics and self-disclose between romantic partners (Mikulincer & Nachshon, 1991) whilst Hazan & Shaver (1987) found that secure attachment was correlated with relationship longevity and lower instances of divorce than either form of insecure attachment. Conversely insecure and avoidant attachment has been found to reduce levels of relationship satisfaction (Gallo & Smith, 2001; Moller, Hwang & Wickberg, 2007) reduced interpersonal closeness and trust of others (Klohnen & Bera, 1998), reduced disclosure of information (Mikulincer & Nachshon, 1991) and evidence higher levels of emotionality, experience of emotional distress and reduced self-knowledge (Pietromonaco & Barrett, 1997). In a recent study Moller, et al., (2007) found that increased levels of attachment insecurity lowered relationship satisfaction in couples with children, especially with the increased burden of a second child.

Hollist and Miller (2005) explored attachment styles and their impact on marital quality in a sample of married couples in mature relationship (in relationships over 10 years) between the ages of 40-50. Their results suggested that the influence of secure attachment for both men and women had a reduced impact on measures of relationship quality; whilst insecure attachment reduces relationship quality. They suggested that the early years of a relationship establish patterns of behaviour and expectations which impact on the quality of the relationship and once

set are stable in later years. In this context secure attachment plays a role early in the relationship in forming positive expectations that the other is able to provide care and support and that the relationship is secure forming the foundations for later strength and quality of the relationship. Consequently, secure attachment has little impact in measures of relational quality in mature relationships. Conversely, insecure attachment behaviour early in the relationship forms negative expectations of the other and the relationship to provide a secure and safe foundation resulting in poor measures of relationship quality (Hollist & Miller 2005).

Differences in romantic attachment style have also been found to influence coping behaviour in a range of stress provoking events. Differences in romantic attachment style have been found to influence coping behaviour in a range of stress provoking events with avoidant adults reporting a strong fear of closeness and of dependency of their romantic partners (e.g., Feeney & Noller, 1990). Avoidant behaviour and lower levels of proximity has been found in both men and women separating at an airport (Fraley & Shaver, 1998). Both attachment anxiety and avoidance have been found to reduce the provision of empathy (Mikulincer et al., 2001). Simpson, Rholes, and Nelligan (1992) found that avoidant women were less likely than secure women to seek emotional support from their romantic partners when experiencing stress.

Attachment has also been suggested as an indirect aspect in help-seeking behaviour with attachment security mediating attachment and receiving emotional support from available sources in ones social ecology (Bartholomew, et al., 1997). According to the model of social support proposed by Bartholomew et al. (1997) patterns of behaviour based on previous attachment experiences are activated under

stress which affects an individual's appraisal, emotional support seeking behaviour, and their perception of support available. The effective reciprocal provision of care and comfort within the context of an adult romantic relationship has been identified in research as an important aspect of adaptive adult romantic relationships (Collins & Feeney, 2000).

A vital aspect in successfully receiving emotional support is one's ability to disclose one's support needs, internal state and thoughts. Self-disclosure personal information, thoughts and feelings has been found to increase relationship satisfaction for both men and women (Sprecher & Hendrick 2004). The capacity to engage in reciprocal self-disclosure is an important aspect of building intimacy in relationships results in greater relationship satisfaction (Ries & Shaver, 1988).

Intimacy is often conceptualized as self-disclosure behaviour that reveals personal feelings thoughts and personal experiences to another person (Sprecher & Hendrick, 2004). Though intimacy can be understood from the perspective of an individual's self disclosure behaviour this behaviour is often in the context of an interpersonal process where another responses shape perceptions of intimacy. Ries and Shaver (1988) emphasise the interpersonal context in which intimacy is experienced arising from dynamic interactions of self-disclosure and other's responses.

Within these interpersonal transactions a person develops a perception of increased intimacy arising from disclosures of thoughts feelings and experiences which are responded to appropriately by the other including understanding, compassion and the provision of emotional support (Laurenceau, Feldman Barrett &

Pietromonaco, 1998). Secure attachment has been found to increase discussion of intimate topics and self-disclose between romantic partners whilst avoidant attachment reduced self-disclosure (Mikulincer & Nachshon, 1991). In a review of literature Feeney, Noller and Roberts, (2000) suggest that the ability to self-disclose and self-disclosure of one's inner state and needs are found to increase with both secure and preoccupied attachment categorizations, though high attachment anxiety evidenced in preoccupied attachment results in decreased flexibility in the use of self disclosure. In contrast avoidant attachment styles have both reduced ability and evidence of self-disclosure (Feeney, et al., 2000).

Secure attachment has been found to increase positive evaluations of romantic relationships with increased reports of relationship satisfaction, levels of intimacy, trust, and commitment in their relationships (Collins et al., 2006). Conversely avoidant attachment often correlates with lower appraisal of relationships with corresponding poor measures of these variables, whilst those with anxious attachment report less overall satisfaction and more conflict and ambivalence (Hazan & Shaver, 1990; Feeney & Noller, 1990). Both attachment anxiety and avoidance in romantic relationships have also been found to increase negative appraisals of relationships and perceived conflicts for males whilst for females, only romantic anxiety increased negative appraisals (Gallo & Smith, 2001). The importance of attachment anxiety in appraising relationship quality has been implicated in research where high attachment anxiety in romantic relationships was found to increase negative appraisals of one's partner and emotional responsiveness (Collins, Ford, Guichard & Allard, 2006). Furthermore, increased attachment anxiety resulted in greater negative appraisals concerning their partner's behaviour whilst tending to blame themselves for their partner's actions (Collins et al., 2006).

Fairchild and Finney (2007) found that participant perceived levels of social support were negatively associated with both attachment anxiety and avoidance in romantic relationships.

In a recent study, Hunter, Davis and Tunstall (2006) explored the relationship between attachment and perceived emotional support for end-stage cancer patients. High levels of attachment anxiety and avoidance were found to correlate with lower levels of emotional support. Furthermore, attachment anxiety strongly predicted the level of emotional distress in patients (Hunter, Davis & Tunstall, 2006) whilst emotionally supportive relationships with partners reduced the levels of emotional distress. The authors argue that emotional support involves the expression of care, love and respect that not only allows the couple to navigate the practical changes to lifestyle, roles and future but also bolsters perceptions of self worth as diminished ability occurs with illness progression.

Some research findings have also suggested a differential impact of gender on measures of relationship satisfaction and romantic attachment with more secure attachment associated with a greater satisfaction and commitment (Collins & Read, 1990; Gallo & Smith, 2001; Simpson, 1990; Kirkpatrick & Davis, 1994). Collins and Read (1990) found that male strong sense of relationship security was a stronger predictor of positive appraisal of relationships than anxious attachment whilst both men and women differentially appraised relationship dissatisfaction based on attachment behaviour they observed in their partners. Females reported less satisfaction when experiencing avoidance or distancing by their partners whilst males reported less satisfaction in their relationship when observing anxious and preoccupied behaviour in their partner (Collins & Read, 1990)

Increased attachment anxiety has also been found to reduce the level of responsiveness to romantic partners, providing reduced emotional support, heightened dismissal of their partner's problems and increased blame of their partners when they were experiencing distress (Collins & Feeney, 2000). In a subsequent study Feeney and Collins (2001) explored the relationship between romantic attachment, care giving qualities and the provision of care to one's romantic partner finding attachment avoidance strongly predicted low levels of support between couples experiencing stress. Participants with heightened avoidance and anxiety were found to be less effective in providing care to their partners. Increased attachment avoidance resulted in dismissing the care needs of the other with an unresponsive or a controlling manner of care giving. With increasing support needs of their partner, emotional support decreased whilst instrumental support increased with this linked to a lack of pro-social orientation and interdependence. Heightened attachment anxiety resulted in increased intrusive, over-involved and controlling form of care giving with both emotional and instrumental support increasing with the care needs of the other. This increasing support was mediated by interdependence where support was given to reduce anxiety from attachment insecurity in the relationship (Feeney & Collins, 2001). Taken together both the ability to provide care and emotional support and to approach another for the same arises out of early attachment experiences that shape interpersonal behaviour and the skills required to effectively give and receive support (Feeney & Collins, 2001).

Each of the attachment styles has been found to utilise differing strategies to manage and cope when the individual experiences emotional distress. Individuals

with secure attachment are able to acknowledge their emotional distress and apply coping strategies to manage these periods more effectively (Mikulincer, 1998; Shaver & Hazan, 1993). In individuals with anxious attachment the attachment behavioural system is hyperactivated with the goal of increasing proximity to the significant other whilst in individuals with avoidant attachment the attachment behavioural system is deactivated resulting in the person distancing themselves from significant others that can potentially provide them with the emotional support they require from their partner (Mikulincer, Orbach & Iavnieli 1998).

The attachment behavioural system is activated when an individual perceives a threat either internally (such as illness, being tired or in pain) or externally (environmental factors perceived to be dangerous or threatening) (Bowlby, 1969/1982). The suite of behaviours function to establish a felt sense of security (Sroufe & Waters, 1977) through attaching protection and support from another at a time of vulnerability, danger or need, focussing on achieving proximity to people perceived able to provide care, support and protection. Security that one's partner is available and attentive when the individual is in need results in non-attachment related activities that consequently increase levels of relationship satisfaction, enjoyment and security (Mikulincer & Shaver, 2003). Conversely felt insecurity resulting from a partner's perceived unavailability or inattentiveness leads to activation of secondary behavioural strategies. These strategies are understood to arise from a cognitive subsystem that is at least partially unconscious which assesses the viability of proximity attaining strategies. If the individual assesses that the other can provide care and support, attachment orientated strategies are hyperactivated to increase attention resulting in proximity and eventual care and support. If proximity, care and support are perceived as unlikely the individual deactivates the behavioural

system adopting strategies that down plays their need and desire for care and support (Mikulincer & Shaver, 2003).

Though as adults one's romantic partner becomes a primary attachment relationship and source for comfort and support, romantic relationships are set within a multiplicity of other relationships including family, friends and work colleagues, or indeed individuals may not have a romantic relationship. In their study of university students, Trinke and Bartholomew (1997) explored romantic attachment and people identified in student's ecology who provided various attachment functions including proximity seeking (the person you spend time with/miss), separation protest, a safe haven (the person you spend time when feel low) and a secure base (person you can count on/be there for you). Romantic partners were identified as the most significant attachment figures over other relationships including both parents and peers. In the absence of a romantic partner mothers were identified as providing a secure base more frequently whilst peers were ranked higher in providing a safe haven than secure base functions, and parents were ranked higher for secure base than safe haven (Trinke & Bartholomew, 1997).

The nature of early relationships between caregivers and their children have an enduring impact on how and individual navigates interpersonal relationships. As the individual matures they utilise their early experiences of care and protection as an unconscious heuristic to direct their own behaviour and predict the behaviour of others. This relational heuristic governs the expectations that another will adequately respond to the individual's care needs but also directly influence their propensity to access emotional support within their romantic relationships. This

heuristic and its related expectations are also extended to broader interpersonal relationships in the individual's social ecology.

3.17 Extending attachment styles to broader community emotional support

As we have seen attachment plays an important part in romantic relationships both in measures of satisfaction but also in providing and receiving emotional support. The influence of attachment has also been found to extend to other relationships in the broader social ecology. Recently Silby et al., (2005) conducted a study where participants completed a social interactions diary over a two-week period recording length of time spent with romantic partners, family or friends. Social interactions were rated for levels of social anxiety and enjoyment and analysed using hierarchical linear modelling (HLM; Raudenbush & Bryk, 2002). A vast majority of interactions were found to be with romantic partners (77%), whilst same sex friends were contacted most frequently outside of the romantic relationship. Parents constituted the majority of contacts within the immediate family ecology. Measures of romantic attachment (anxiety and avoidance) were found to strongly account for corresponding measures of social interaction anxiety and avoidance as recorded in diary entries, whilst measures of enjoyment were found to be negatively related (Silby et al., 2005).

The access of emotional support has also been found to be impacted on by the quality of attachment (Bartholomew & Horowitz, 1991). Increased attachment avoidance has been found to reduce the levels of support seeking behaviour (Davis, Morris & Kraus, 1998) whilst attachment anxiety has been found to result in less social support (Hawkins, 1995).

Florian, Mikulincer and Bucholtz (1995) explored the relationship between attachment styles and emotional and instrumental support provided by a range of supports in an individual's social ecology. Securely attached individuals perceived greater available levels of both instrumental and emotional support and increased likelihood of accessing this support across a wide breadth of people in their support network including parents, partners and friends. Conversely, both avoidant and ambivalent individuals perceived low levels of instrumental and emotional support available in their social ecologies. The study also highlighted the importance of romantic partners in providing the greatest level of emotional and instrumental support over same sex friends, mothers and opposite sex friends in order of importance. Fathers were accessed more for instrumental support whilst gender differences indicated that women tended to access emotional and instrumental support more than men (Florian et al., 1995). Attachment experiences resulting in secure romantic attachment creates an expectation that significant others will be available to provide both instrumental and emotional support when the individual is in need. Conversely, early childhood attachment experiences characterized by caregiver inconsistency and unpredictability to provide care and comfort forms the expectation that emotional supports in their social network are unreliable, reducing access to support (Florian et al.). Fairchild & Finney (2006) found that both attachment anxiety and avoidance were negatively related to levels of perceived social support. Attachment anxiety was related to anxiety in social interactions with family members, the majority of which were parent interactions (Silby et al., 2005).

These studies provide clear evidence of secure attachment enabling both the seeking out and provision of emotional support and comfort from others in ones ecology whilst the reverse is true for insecure attachment.

3.18 Professional support, therapy and attachment change

Bowlby (1988) suggested that the therapeutic environment and the client relationship to the therapist function to provide a safe and secure environment and a forum to discuss attachment related material. Through the therapeutic process the client is encouraged to explore significant relationships and foster awareness of childhood experiences related to relational bonds to parents. Clients explore parent's expectations and parenting behaviour and its impact on the development of the client's attachment style. Exploring the development of a client's internalized model of attachment brings to their awareness the impact of early attachment experiences on past and present behaviour particularly with family, friends and loved ones. Therapy can review these experiences and explore the patterns and relationships these experiences have to current suicidal behaviour, psychopathology and drug taking. Furthermore, the relationship that develops between the therapist and client provides a relational forum that enables the client to explore internalized attachment styles and integrate new attachment experiences within the context of this therapeutic relationship. As an example, Sheldon and Reiffer (1989) developed a model of brief intervention that focused on the modification of client's internal attachment models. An affective and cognitive exploration of attachment related material is conducted using transference material brought up in the clients. This allows working models to become more 'permeable' and adaptable to new experiences.

The maintenance of dysfunctional attachment models is understood to arise through new relational experiences being filtered through earlier childhood attachment experiences functioning as a defensive mechanism that prevents re-

experiencing pain related to these earlier experiences (Sheldon & Reiffer, 1989). The exploration of transference related material emerging from the therapeutic process provide the forum for previously denied feelings related to early attachment experiences and unresolved trauma to be expressed and attachment style modified. Emotional Focused Couples Therapy (EFT; Johnson, 2002; Johnson & Lebow, 2000) is an attachment based therapy that theorizes that attachment styles and behaviour plays a significant role in the quality of relationships. The model of therapy endeavours to strengthen attachment within couples deepening emotional interactions and creating a safer, secure relationship.

3.19 Chapter summary.

The preceding chapter provided an overview of attachment theory from it's early theoretical development by Bowlby (1980; 1982; 1985) to it's extension and application to child research by Ainsworth et al., (1978). Central to attachment theory is the assertion that human's are innately orientated to maintain emotional and physical security which leads to the development of behaviours that promote others to respond with care and protection. These behaviours are set within the context of a dynamically changing family system and reciprocal parent child relationship, which over time provide repeated experiences of care and protection. These experiences are eventually internalised into beliefs as the availability of others to provide care and protection and beliefs as to one's own value to receive care (Bowlby, 1980; 1982; 1985a). A review of literature highlighted the impact of these early relational experiences on parenting behaviour (Ainsworth; Crittenden, 1995), psychosocial health (Mickelson, et al., 1997) and their internalisation into beliefs as to the worth of self and ability of others to provide care (Bretherton & Munholland, 1999).

Though early childhood interactions with parents are important in developing internal models of attachment (Bowlby, 1979) research evidence has shown that subsequent experiences in the course of life can modify these schema (Thompson, 2000). From childhood to adulthood the nature of relationships change with healthy adult relationships characterised by reciprocated ability to both provide and receive care (Hazan & Shaver, 1987). The application of attachment to romantic relationships has provided evidence for the importance of attachment security in not only the quality and satisfaction of these relationships (Feeney, 1999), but also the ability of individuals to effectively provide and receive care (Collins & Feeney, 2000). Though romantic relationships are an important context in which attachment is played out in adults, these relationships are imbedded within a broader systemic context of ongoing relationships including family and peers (Trinke & Bartholomew, 1997). From a broader systemic perspective the provision of professional services that provide emotional support and therapy also evidence the importance of attachment (Bowlby, 1988; Sheldon & Reiffer, 1989). Taken together attachment theory provides a framework to understand interpersonal relationships across the lifespan. In particular it provides an understanding of how behaviours to receive and provide care and protection are developed, maintained and modified in the context of a variety of relationships.

Adam's narrative also highlights the enduring impact of attachment experiences on psychological adjustment. The most prominent feature of Adam's case presentation is the unresolved trauma related to his mother's death. This is evidenced in his frequent return to his mother's memory in both therapy, in his art work and poetry and in its emotional valence for him. The review of attachment

literature highlighted not only the impact of unresolved trauma on attachment behaviour but also the importance of parental care and protection in times of need. Implicit in Adam's narrative is to some extent the failure of care, protection and soothing following the trauma of his mother's death. Though Adam's grand parents provided an emotionally secure foundation Adam perceived his father as abandoning him and not providing care following the death of his mother. These experiences are likely to have resulted in the development of both a poor sense of self as worthy of love and affection and the perception that others are capable and willing to provide care and protection when in need (Bretherton & Munholland, 1999).

The insecure nature of Adam's attachment is evidenced through Adam's various interpersonal relationships. Many of these can be characterised by qualities of both anxiety and avoidance. His relationship with Nancy and her young daughter evidences strong anxiety and insecurity. Adam views this relationship as a surrogate family in which he is strongly invested and through which insecure attachment behaviour is strongly evidenced. Adam's romantic relationship also evidences aspects of both anxious and avoidant attachment behaviour in both its insecurity and intensity. Adam's friendships and emotional support network also reflected aspects of avoidant attachment behaviour with many 'close' relationships being short and transient in nature and offering little emotional support. This avoidant behaviour extended beyond relationships with family and friends to professional support services.

Since Bowlby's early work and subsequent extension and development by Ainsworth the attachment field has developed varying models, terminology and

measures that best makes sense of naturalistic observations and which can be applied and tested under scientific conditions (Bartholomew & Shaver, 1998). As detailed more fully in the following chapter the development of scientific instruments and procedures to better explore attachment behaviour and its consequences has interwoven with evolving theoretical modelling proposed by researchers. The following chapter will explore the evolution of attachment measures with a particular focus on the development of the Experiences in Close Relationship Revised (ECR-R; Fraley, et al., 2000).

CHAPTER FOUR

THE MEASUREMENT OF ATTACHMENT

Chapter Overview

The following chapter will provide an overview of literature on measurement of attachment from its beginnings in child and family observations through interview based measures and more recent survey based instruments. The chapter will outline both psychometric developments in measuring attachment and theorising on models that account for observations and results found in the literature. Finally the development of the Experiences in Close Relationships Revised (ECR-R; Fraley et al., 2000) and subsequent research to establish the instruments norms will be explored. A number of limitations identified will highlight the need for a randomised community sample to strengthen evidence for the ECR-R as a robust measure of romantic attachment and use as a research tool.

In the previous chapter the significant contribution of attachment theory to understanding the impact of interpersonal relationships on an individual's psychological development was outlined with the work of John Bowlby (1969; 1972; 1982) setting the foundations of this understanding. The current chapter reviews the development of attachment measurement from early pioneering work by Mary Ainsworth and colleagues with children to recent survey based instruments measuring adult attachment. A central tenant to attachment theory is the notion that the influence of early childhood relationships has an impact on interpersonal relationships influencing ones expectations, thoughts, affect and behaviour not only effecting the nature of our interpersonal relationships but also playing a significant role on our emotional health over the lifespan. The scientist practitioner model provides for theoretical evolution where clinical practice and observation inform

scientific experimentation. Central to this process has been the need to continuously refine accuracy and precision of measurement instruments used in attachment research. Two research ‘subcultures’ have developed both founding their work on Bowlby’s original attachment theorizing. The first body of research has tended toward psychodynamic and object relations understandings of child/parent interactions (eg. Aninsworth, et al., 1978; Main & Soloman, 1986) whilst the second tending toward personality and interpersonal development (eg. Bartholomew & Horowitz, 1991; Hazan & Shaver, 1987; Levy & Davis, 1988). Though maintaining similar theoretical foundations they differ in domain focus (eg. family functioning, peer or romantic relationships) in instrumentation (eg. interview, Q-sort or survey) and in their theoretical understanding of attachments underlying dimensions (categories, prototype descriptions or dimensions/factors) (Bartholomew & Shaver 1998). The following chapter reviews the historical and theoretical foundations of attachment measurement as a prelude to the current research which provides normative data Experiences in Close Relationship Scale Revised (ECR-R; Fraley, Waller & Brennan, 2000).

4.1 The work of Mary Ainsworth ‘the strange situation’ procedure

Building on the early work of Bowlby, Mary Ainsworth and her team developed a novel procedure in an attempt to explore an infants (12 to 18 months) expectations of the availability and responsiveness of identified attachment figures and the attachment figure’s ability to meet infant need for care and protection (Ainsworth, Blehar, Waters & Wall, 1978). As discussed in the previous chapter Ainsworth developed a research tool that enabled the exploration of behavioural systems (attachment, fear, exploration, sociability and nurture) in a standardized way. In the course of the procedure infants are exposed to low levels of stress

through experiencing a strange play environment, periodic presence of a stranger and brief separations from the parent over a 20 minute period.

In a series of separation and reunion experiences (the Strange Situation) Ainsworth observed infant and parent behavior during a procedure that introduced mild infant stress aimed at activating their attachment behavioral system.

Consistent with Bowlby's theory of attachment, Ainsworth et al., (1978) identified three attachment styles through the relational interactions observed in the strange situation experiment;

1. Secure attachment where the attachment figure was sensitive and responsive to the infants needs, providing consistent, secure and predictable contact. Consequentially the infant was able to explore the world even when separated from the caregiver, seeking interaction and connection with him/her upon their return,
2. Insecure anxious-ambivalent attachment where caregiver was often inconsistent in their care giving, sometimes being intrusive whilst other times being unresponsive or unavailable to the infant's needs. This resulted in emotional distress for the infant if separated, an inability to be comforted and need for proximity to the caregiver contact.
3. Insecure avoidant attachment where caregivers ignored infant's needs for care and were often rigid and rejecting in their interactions with the child. This resulted in behaviour that appeared to have little need for the attachment figure and where the infant exhibited little distress when left alone.

A fourth group of infants has been identified that show no consistent organized behaviour during the strange situation procedure and as a result have been labelled disorganized-disorientated attachment (Main & Solomon, 1986). These children were found to have no coherent attachment style when presented with separation from a primary attachment figure. When exposed to the anxiety of the care giver leaving and returning in the strange situation infants would initially seek proximity and suddenly exhibit avoidance, freeze or dazed behaviour (Main & Solomon, 1986). It is suggested that this behaviour represents the infants fear response to a frightening parent and/or an unresolved attachment trauma and arises where caregivers are neglectful or abusive (Main & Hesse, 1990).

Ainsworth's research became a catalyst for broader research into not only the factors that influence the development of these infant styles but also the stability of these styles into adulthood and their impact on adult relationships and psychological health. Two branches of research evolved out of the foundational work of Bowlby (1973, 1980, 1982) and Ainsworth et al., (1978). The first of these is an interview measure of adult attachment (Adult Attachment Inventory: AAI) developed by George, Kaplan, & Main (1985) to predict Strange Situation behaviour in infants from parental interviews.

4.2 Measuring adult attachment: The Adult Attachment Interview (AAI)

The Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985) was developed based on infant behavioural styles identified through the strange situation procedure (Ainsworth et al., 1978). The AAI is a semi structured hour long interview used to explore adult's recollection of early childhood attachment related experiences and categorizes the participants into a number of secure and insecure

categories of attachment (George, Kaplan & Main, 1986). The AAI explores the impact of potentially traumatic childhood attachment experiences as shown in the continuity and coherency of the adult's discourse when recalling these events. Secure and insecure attachment styles in adults can be observed as differences in cognitive processing and processing of affect indicated by the degree of dissidence and consistency in story during the recall of these early childhood experiences. Four attachment classifications are derived including secure, dismissing, preoccupied and unresolved and further category, cannot classify (CC).

1. *Free/autonomous or secure* (F) adults tend to respond coherently, in an organized manner and with limited dysfluencies to questions concerning childhood traumatic events and parental care irrespective if historical events were positive or had negative consequences. Evaluations of parents are supported by clear event recall.
2. *Dismissing* (D) adults, having access to semantic memory, tend to provide positive glowing evaluations of their parents and care they received (they were great, loving, excellent, normal parents). The person also minimizes the importance of the attachment figure in their recall of traumatic memories as evidenced through recall failure, idealizing, normalizing or devaluing the attachment figure and have little episodic memory of events that do not support their idolized views. Finally transcripts tend to be short, with few historical details.
3. *Preoccupied/entangled* (E) adults tend to be immersed and preoccupied in their early attachment experiences often resulting in lengthy, unorganised verbal descriptions laden with passive or angry affect. Whereas secure attachment discourse is collaborative preoccupied discourse is markedly

non-collaborative. Many maxims are violated including manner of speech (use of psychological jargon, nonsense words and childlike speech), relevance (recall of childhood parental interactions replaced by recent ones) and quality of discourse (long periods of discourse with little collaborative turn taking).

4. *Unresolved-disorganized* (Ud) response to an attachment related trauma is indicated by lapses of reasoning or disfluencies in the description of potentially traumatic attachment related childhood events. This is especially evident in recall of events of loss, abuse or neglect.
5. *Cannot Classify* (CC). Adults tend to have low coherence scores with a mixture of all classification presentation indicators evidenced in recollections of attachment experiences and extending through the interview. This suggests an inability to arrive at an organised attachment strategy and behaviour.

The use of the AAI as an exploration of internalised working models of attachment has been shown to be a valuable tool in therapy to explore the ongoing impact of attachment on current interpersonal relationships and to identify unresolved loss or trauma (Fonagy, et al., 1996). Though the AAI has many benefits it also has a number of significant disadvantages. The AAI is labour intensive both in time to administer the questionnaire (taking upwards of one hour) and in preparing detailed transcriptions for discourse analysis. Due to these factors sample sizes in research can be restricted affecting both the power of studies and introducing sampling error. Furthermore, to categorize the resulting AAI transcripts researchers require intensive training to ensure inter-rater reliability within and across studies. As a consequence, use of the AAI in research can be expensive, time

consuming, arguably more vulnerable to confounding influences in the data (i.e. variances between different individuals ratings and changes in one person's ratings over a period of time), self selection bias in sampling due to perceived invasiveness, and difficulty in passing ethics committees (due to the potential trauma resulting from interview questions). In spite of these challenges a significant body of research has developed.

4.3 Self report measures of romantic attachment

In the late 1980's a second line of research began to look at the impact of attachment to broader relationships found in the community, particularly in the area of romantic relationships. Romantic attachments styles are theoretically believed to arise out of early attachment relationships with caregivers but differ significantly in a number of key areas including reciprocity of care giving within couples, the mutual expression of need for comfort and support (emotional and instrumental) and in the potential that the relationship can produce children (Hazan & Zeifman, 1999).

Hazan and Shaver, (1987) began a line of research inquiry using forced choice measures of romantic relationships. Researchers following this course of enquiry assumed that parallels existed between the infant attachment styles identified by Ainsworth and romantic relationships found in adults, more specifically that adult loneliness and relationship satisfaction was associated with insecure attachment. This new line of research differed from previous work in that Hazan and Shaver were personality and social psychologists who tended to perceive individual differences as a product of personality traits and social interactions. This framed their research, and research methodology (Bartholomew & Shaver, 1998). Hazan

and Shaver devised a forced choice measure for adults to assess general attitudes to close personal/love relationships. The measure consists of three items that present simple statements based on Ainsworth's three patterns of infant attachment (secure, avoidant and anxious/ambivalent). Each statement consisted of a number of themes and asks participants to recall previous romantic relationships and to decide which description was most accurate of them and their recollection. Hazan and Shaver reported that secure attachment was associated with recollections of emotionally warm, close and responsive family relationships conversely insecure attachment styles reported family relationships as cold and unresponsive.

4.4 The tripartite model of attachment styles

The tripartite model of romantic attachment was adopted by a number of researchers following Hazan and Shaver's (1987) publication (e.g. Brennan & Shaver; Kirkpatrick & Davis, 1994). Studies using these measures (see table 2) have found a correlation between attachment style and relationship satisfaction (for a review see Shaver & Clark, 1994) and the work environment (Hazan & Shaver, 1990). Following the publication of Hazan and Shaver's tripartite model, research emerged suggesting an underlying two dimensional structure to attachment finding that secure and avoidant ratings were more negatively correlated with each other than secure and anxious-ambivalent ratings (Bartholomew & Horowitz, 1991; Levy & Davis, 1988). Levy and Davis (1988) broke down Hazan and Shaver's statements on romantic attachment prototypes and analysed the ratings of participants on how well each described their romantic experiences.

Table 2.

Hazan and Shaver's (1987) descriptions of three attachment styles.

Attachment Style	Description
Secure	I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don't worry about being abandoned or about someone getting too close to me.
Avoidant	I am somewhat uncomfortable being close to others; I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close, and often, love partners want me to be more intimate than I feel comfortable being.
Anxious/ambivalent	I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't want to stay with me. I want to merge completely with another person, and this desire sometimes scares people away.

(Source; Hazan & Shaver, 1987).

The authors were able to distinguish two discriminant functions from babies categorized as secure, avoidant or anxious/ambivalent using the continuous scales used to code infant behavior to predict infant attachment type.

4.5 The four factor model of attachment styles

Bartholomew (1990) developed a four-factor model also based on two underlying dimensions incorporating one's working model of self (as worthy or unworthy of love attention and help when needed) and one's working model of others (as able or unable to be trusted, loving, caring and able to provide support) incorporating Bowlby's (1973) original theory of internal working models of self and others. Bartholomew and Horowitz (1991) suggested that these two dimensions were characterized in terms of 'anxiety about closeness and dependence on others for self esteem' (working model of self), and 'avoidance of intimacy' (working model of others). Within this model the individual could conceptualize a model of

self that was positive and worthy of love and attention or as negative and unworthy. Likewise the individual could conceptualize a model of others holding positive or negative views, where others are viewed as worthy or unworthy of trust, love and were reliable and could provide care and help when needed. This model enables the definition of four rather than three attachment styles in adults:

1. Secure people have positive views of themselves and others have a high sense of self worth and are able to maintain intimate relationships and their own autonomy.
2. Preoccupied people have negative views of self and positive yet apprehensive views of others. As a consequence they search out for acceptance of others and are vulnerable to rejection to others, negative appraisals or failure to satisfy their needs.
3. Fearful/avoidant people have negative views of self and others. They often searching for the validation and acceptance of others but to avoid the pain of rejection and loss they avoid intimacy.
4. Dismissing/avoidant people have positive self views whilst holding negative views of others. They emphasize self reliance and protect themselves from the need to have intimate relationships to protect themselves from their negative exceptions. Like the fearful/avoidant group dismissing adults avoid the pain of rejection and negative appraisals of others (Bartholomew & Shaver, 1998).

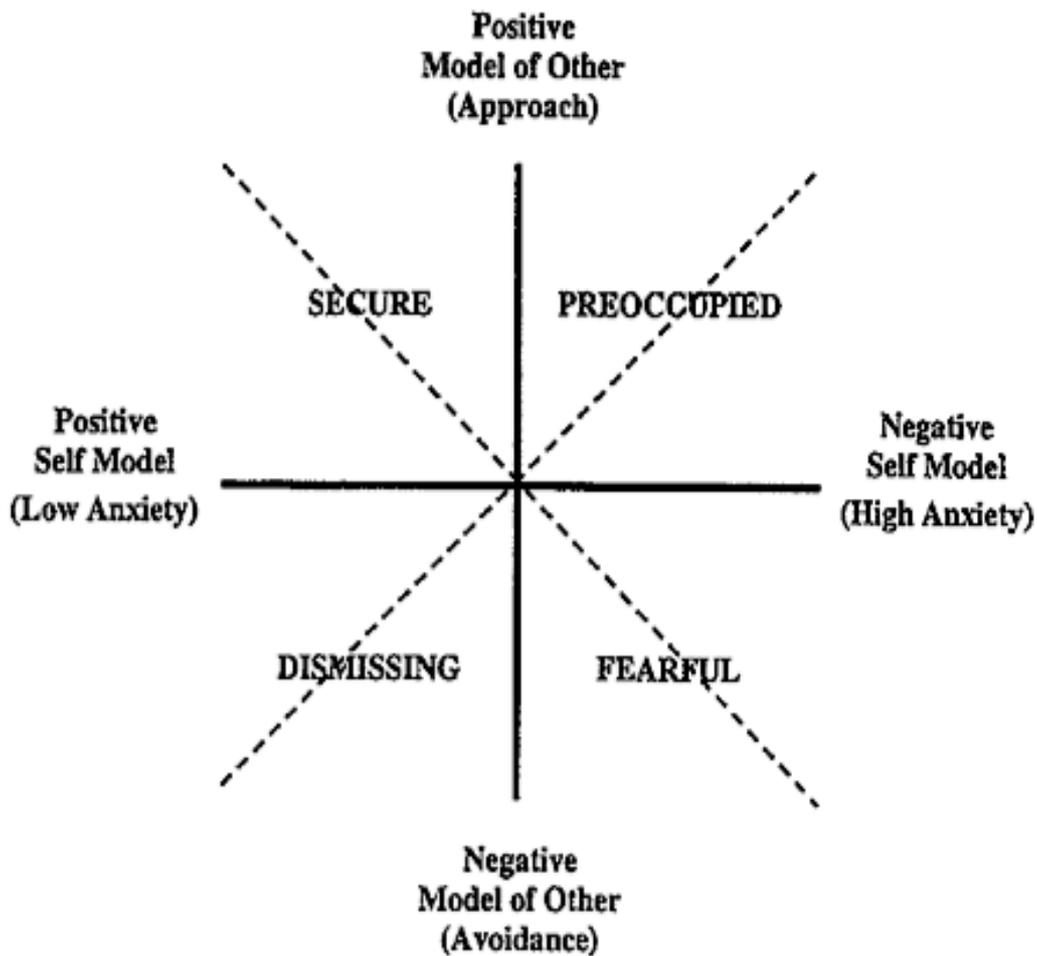


Figure 2. Bartholomew's (1990) two dimension four factor model of attachment.

4.6 The Relationship Questionnaire (RQ)

Building on this Bartholomew and Horowitz (1991) developed the Relationship Questionnaire (RQ) as a measure based on sentence descriptions of each of the four attachment styles which could be utilized as either a forced choice or as a rating scale (Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994). Similar to Hazan and Shaver's (1987) instrument the RQ presents participants with four typological statements and asking them to rate each on its applicability in describing them.

Table 3.

Four Attachment Statements of the Relationship Questionnaire. (RQ)

Attachment Style	Description
Secure	It is easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don't worry about being alone or having others not accept me.
Preoccupied	I want to be completely emotionally intimate with others, but often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.
Fearful	I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.
Dismissing	I am comfortable without close emotional relationships. It is very important to me to feel independent and self sufficient, and I prefer not to depend on others or to have others depend on me.

In subsequent research Brennan, Shaver and Tobey (1991) found significant correlations between both the four-category RQ and Hazan and Shaver's (1987) tripartite model with 87% correspondence between both measures of secure attachment. Researchers have highlighted that the range of theoretical models and lack of standardized instruments used to measure attachment in relationships has resulted in difficulties in comparing research findings on attachment (Becker, Billings, Eveleth, & Gilbert 1997; Fraley, Brennan & Waller 2000; Griffin & Bartholomew 1994). In comparing research findings utilizing clinical interviews such as the AAI and self report measures of attachment Bartholomew and Shaver (1998) argued that considerable convergence has been shown in the literature across measures of attachment. The authors suggest a continuum of measure convergence

that incorporates taxonomical similarity and instrument modality with measures of attachment founded and emanating out of earlier research of both Bowlby and Ainsworth's theorizing. At one end of the continuum are interview based assessments such as the AAI (Main & Solomon, 1986; Crittenden, 1997a, 2006) whilst romantic self reports fall at the other end of the continuum. Measures between these two poles include interviews, Q-sort or surveys focusing on families, peer groups and romantic relationships. The authors suggest that established measures of attachment vary in both the area of focus (family, peer, or romantic relationships), in the methodology they use to measure attachment (interview, Q-sort, or self report), in the model they perceive attachment to be organized (categories, prototypes, or dimensions), and in their categorization systems (Bartholomew & Shaver, 1998). In research comparison of similar measurement instruments used with similar populations increase convergence (i.e. comparison between interview measures or between survey measures) whilst weaker convergence between measures occurs when the modality of the measures differ (interview and survey) or when areas of research focus differ (i.e. family functioning compared to romantic relationships) (Bartholomew & Shaver, 1998).

4.7 Limitations in the measurement of attachment

As highlighted in the previous literature review, a central tenant of attachment theory and research is that the early interpersonal experience between the child and caregiver forms a prototype for relationships (romantic, friendships family and broader community interactions) across the lifespan. Much of the research in adult attachment is founded on the assumption that correlations exist between measures of child attachment and later adult attachment (Bartholomew, 1990; Crittenden, 2006; Fraley, Brennan & Waller, 2000; Hazan & Shaver, 1987;

Main & Hesse, 1990). The terminology and nomenclature used in the literature often uses similar attachment terms for differing constructs with most having limited construct validity and correlation to Ainsworth et al.'s (1978) original attachment categories. Correlations between various attachment measures have been found to have moderate correlations increasing when similar methodologies are used (Crowell, Fraley & Shaver, 1999). There are a number of limitations in using categorical measures. Fraley and Waller (1998) demonstrated that individual attachment variation was quantitatively distributed at both the manifest and latent variable level not supporting the use of discrete categories. The authors argued that it was difficult for individuals to classify themselves into one of three or four styles using forced choice measures that incorporate composite statements that comprise an array of complex themes for which participants may vary in their degree of identification. Furthermore, due to the complexity of the statements the measure is likely to have limited re-test reliability (Fraley & Waller, 1998). Social and psychological research tends to use multi-item scales with strong internal validity that measure underlying constructs rather than the use of single item categorical measures (Simpson, 1990). The use of categorical measures results in the creation of nominal data which limits the scope of statistical procedures possible for use (i.e. analysis of variance) and which can lead to problems in conceptual analysis, power, and measurement precision (Fraley & Waller, 1998; Simpson, 1990).

The AAI involves the measurement of unconscious mental representations of attachment as evidenced in dysfluencies in speech and through inconsistencies highlighted in discourse analysis (Main & Solomon, 1986; Crittenden, 1997a, 2006). Research instruments in romantic attachment involve the utilization of self report measures which are “convenient surface indicators of differences in attachment

related cognitions, emotions, and behavioral tendencies which are partly unconscious” (Shaver & Mikulincer, 2002, p. 137). In this way measures of romantic attachment access conscious beliefs and appraisals of attachment relationships whilst the combination of interview and behavioural observation assesses inconsistencies in narrative, behaviour and affect often unconscious to the individual.

A number of researchers have also highlighted that the use of differing theoretical models and their related instruments has resulted in great difficulty in comparing research (Becker, Billings, Eveleth, & Gilbert 1997; Fraley, Brennan & Waller 2000; Griffin & Bartholomew 1994) with variations in research findings (Moller, Hwang & Wickberg, 2006). In a recent study with trauma survivors Riggs, Paulson, Tunnell, Sahl, Atkison and Ross (2007) compared the results of both the AAI and Experiences in Close Relationship Scale (ECR; Brennan, et al., 1998) on measures of personality and dissociation. Results suggested that self–other dimensions of the ECR was related to personality dimensions and psychological symptoms of distress. Compared to the ECR, the AAI found few significant correlations to personality and psychopathology measures except in identified unresolved trauma and measures dissociation, PTSD, schizotypal and borderline personality disorder (Riggs, et al., 2007).

4.8 Development of the Experiences in Close Relationship (ECR)

In an effort to address the above psychometric limitations of previously developed measures and converge the growing body of literature utilizing a variety of scales Brennan et al., (1998) constructed the Experiences in Close Relationship Scale (ECR). The measure was developed through a factor analysis of items from

all available adult attachment measures available at the time (323 items) including both the RQ (Bartholomew & Horowitz, 1991) and Hazan and Shaffer's original three-factor instrument. Results of Principal Component Analysis suggested that that two factors emerged corresponding to avoidance ($\alpha = .94$) and anxiety ($\alpha = .91$) and explained 62.8% of the variance. The items with strongest loadings were combined to create two scales (The Experiences in Close Relationship Scale; ECR) measuring levels of avoidance (uncomfortable with emotional intimacy and reluctance to be close to romantic partners) and anxiety (hyper vigilance concerning reject and anxiety with emotionally intimate relationships). Cluster Analysis was used to group responses to the two subscales into one of the four attachment groups. A comparison to Bartholomew's (1990) four categorical model found that a person's self-concept (being worthy of care and protection) was similar to the attachment anxiety dimension whilst one's concept of others (being willing and able to provide emotional support, care and protection) was similar to attachment avoidance (Brennan et al., 1998; Feeney, 1999). More secure attachment tended toward low anxiety in romantic relationships and tendency for closeness to their partners whilst preoccupied attachment evidenced heightened levels of anxiety and desire to maintain closeness to partners. Dismissive-avoidant attachment was shown by avoidance of close relationships and low levels of anxiety whilst fearful-avoidant attachment was characterised by both heightened levels of anxiety and increased avoidance of intimate relationships. Furthermore the authors established the ECR to have construct validity with measures of touch and sexuality.

4.9 Refinement of the ECR

In subsequent development, Fraley, Brennan & Waller (2000) used item response theory (IRT; Hambleton & Swainathan, 1985) to build on and improve the psychometric properties of the ECR (for a review IRT see van der Linden & Hambleton, 1997). IRT was applied to the items of four commonly used measures of adult attachment including the Experiences in Close Relationship Scale (ECR; Brennan, et al., 1998) the Adult Attachment Scales (AAS; Collins & Read, 1990), the Relationship Styles Questionnaire (RSQ; Griffin & Bartholomew, 1994) and the Attachment Scales (AS; Simpson, 1990). Three of the scales were found to have low measurement precision (in general were less sensitive in their measurement of secure attachment) and poorly measured underlying constructs, whilst the ECR was found to have moderately stronger psychometric properties. The results of initial exploratory factor analysis indicated that the items were distributed in a circular pattern, failing to load on a two factor solution.

Following rotation of the axes the 323 items were found to load on two discrete factors corresponding to anxiety and avoidance. The item pool was first reduced through excluding items with poor loading strength with the remaining items reduced further through selecting the items that most strongly discriminated the two factors (Fraley, et al., 2000). This resulted in the final 36 item pool (retaining 13 ECR items for anxiety and 7 ECR items for avoidance) used for the Experiences in Close Relationship (revised) loading on two factors of romantic attachment. Items discrimination values measure the two dimensions of anxiety and avoidance more broadly resulting in lower inter-correlations between items which significantly limited the accuracy of previous measures, particularly with low anxiety and avoidance scores corresponding to secure attachment (Fraley et al.,

2000). Item parameter estimates derived from the IRT analysis of the attachment scales were used in a repeated simulation examining test retest stability finding that both subscales had a shared variance of ~90% over analyses. The authors found that the ECR-R had increased measurement accuracy of the underlying constructs of avoidance and anxiety across the trait range, had higher individual item functioning, was shown to have temporal stability over simulated tests and generally had stronger psychometric properties. Attachment anxiety or model of self is understood as an individual's propensity for anxiety and vigilance concerning the rejection and abandonment of others whilst attachment avoidance or model of other's concerns one's discomfort with closeness and level of dependency or reluctance to be intimate with others (Fraley & Shaver, 2000).

4.10 Norming of the Experiences in Close Relationship Revised (ECR-R)

In the development of the ECR-R Fraley et al. (2000) refined the items used for each of the subscales increasing measurement precision. Subsequent research has confirmed the two factor structure of the ECR-R with a robust internal consistency of both subscales (α range = Anxiety, 0.91-.95; Avoidance, .91-.93) (Fairchild & Finney 2006; Selcuk, et al., 2005; Sibley, Fischer & Liu 2005; Sibley & Liu 2004). Confirmatory factor analysis, using a range of fit indicators have likewise suggested that two factors underlie responses to the ECR-R (CFI range .96-.98; RMSEA range .06-.073; SRMR range .04-.07; NNFI range .96-.98) (Fairchild & Finney, 2006; Selcuk, et al., 2005; Sibley, et al., 2005; Sibley & Liu, 2004) (see table 5 for an overview of fit results).

Table 4.

Confirmatory Factor Indicators Across ECR-R Studies.

Fit Indicator	Fairchild & Finney (2006)	Sibley, et al. (2005)	Sibley & Liu (2004)	Selcuk, et al., (2005)
Comparative fit index CFI	.96	.98	.97	.97
Root mean square error of approx RMSEA	.073	.06	.068	.06
SRMR	.072	.04	Not Reported	.05
Non-normed fit index NNFI	Not Reported	.98	.96	Not Reported
Root mean squared residual RMR	Not Reported	Not Reported	.083	Not Reported
Goodness of fit index GFI	Not Reported	.95	.92	Not Reported

Internal Consistency of the ECR-R subscales Across Studies.

Cronbach's Coefficient	Fairchild & Finney (2006)	Sibley, et al. (2005)	Sibley & Liu (2004)	Selcuk, et al., (2005)
Anxiety	.92	.93	.95	.91
Avoidance	.93	.94	.93	.91

4.11 Temporal stability of the ECR-R.

Bowlby (1969, 1973, 1980) suggests that early attachment experiences coalesce into a relational schema that influences interpersonal relationships across the lifespan. Though exercising significant influence on interpersonal relationships these internal working models are understood to be dynamic in nature potentially changing with maturation, context and experience (Bowlby, 1969, 1973, 1980; Crittenden, 2000; Fraley, 2002; Kirkpatrick & Davis, 1994; Thompson, 2000). An important issue in the measurement of attachment change over time has been the criticism that instruments used have had poor psychometric properties resulting in the increased probability of false significant results (Fraley & Waller, 1998; Fraley

et al., 2000). Fraley & Waller (1998) In developing the ECR-R Fraley et al., (2000) utilised a simulated analysis finding the measure to have short-term temporal stability which subsequently has been replicated in a number of studies using repeated measures survey data. Using latent variable path analysis Sibley & Liu (2004) reported that both subscales indicated strong test-retest reliability over a three week period (avoidance, $\beta = .90$, $R^2 = .84$; and anxiety, $\beta = .92$) with the latent repeated measures of both anxiety and avoidance accounting for 86% of shared variance and satisfactory fit statistics over the test and retest time periods (GFI = 0.88 & 0.83; NNFI = 0.95 & 0.90; CFI = 0.96 & 0.92; RMR = 0.066 & 0.066; RMSEA = 0.094 & 0.129). In developing a Turkish version of the ECR-R scale Selcuk, et al., (2005) reported robust test-retest reliability over six week period for both the Anxiety subscale $r = .88$ ($p < .001$) and Avoidance sub scale $r = .85$ ($p < .001$). Furthermore the instrument has demonstrated temporal reliability at three weeks in Greek samples (Avoidance, $r = .85$, $p < .001$; anxiety, $r = .88$, $p < .001$) (Tsagarakis et al., 2007). These findings supporting cross cultural validity (Selcuk, et al., 2005; Tsagarakis et al., 2007).

4.12 Convergent validity of the Experiences in Close Relationships (ECR-R)

Convergent validity for the ECR-R has been established with the RQ in a number of studies. Sibley et al., (2005) found that ECR-R attachment anxiety and avoidance were positively correlated with RQ measures (anxiety, $r = .60$, $p < .001$; avoidance, $r = .62$, $p = .001$) whilst Tsagarakis et al., (2007) found that the ECR-R avoidance subscale was negatively correlated with the RQ secure typology ($r = -.32$, $p < .001$) and positively correlated with the RQ fearful ($r = .37$, $p < .001$) and preoccupied typologies ($r = .41$, $p < .001$). ECR-R avoidance scale was positively correlated with the RQ dismissing ($r = .33$, $p < .001$), fearful ($r = .36$, $p < .001$)

and secure ($r = .32, p < .001$) typologies but not with the preoccupation typology (Tsagarakis et al., 2007).

4.13 Criterion validity of the Experiences in Close Relationships (ECR-R)

A central tenet of attachment theory is that individuals develop an interpersonal understanding of themselves and others that predicts the availability of care and support through repeated parent child interactions in early infancy. Bowlby suggested that attachment promoting behaviours arise from an organized attachment behavioural system that functions to protect the vulnerable infant from danger. This group of behaviours develops into the capacity, in a sense, for object permanence or more specifically the ability to maintain safety, protection and care by the caregiver in times of distress or need (Bowlby, 1969/1982). As such this suite of behaviours is goal orientated having a 'functional equivalence' to attain proximity to the caregiver and is dynamic in nature changing and adapting as the individual matures over the lifespan (Sroufe & Waters, 1977).

Research has established broader criterion validity of the ECR-R beyond attachment measures with a number of theoretically related constructs (see Table 5) (Fairchild & Finney 2006; Sibley, Fischer & Liu 2005; Sibley & Liu 2004; Tsagarakis et al., 2007). Research has established strong correlations between measures of attachment and indicators of romantic relationship satisfaction. High measures on anxiety and avoidance subscales of the ECR-R has been found negatively impact on relationship satisfaction ($F(3, 136) = 14.84, p < .001$) (Tsagarakis et al., 2007). High measures of attachment avoidance corresponded to reduced time spent with romantic partners ($F(3, 100) = 4.22, p < .01$) (Tsagarakis et al., 2007). Sibley, et al., (2005) found that high measures of attachment avoidance

corresponded with decreased levels of enjoyment in social interaction with partners ($\gamma = -.44, p < .001$) and avoidance of partners in social settings ($\gamma = .51, p < .001$).

The study also revealed attachment anxiety was able predict anxiety in social interactions ($\gamma = .46, p < .001$) and anxiety in social interactions with family members ($\gamma = .34, p < .05$) (Sibley, et al., 2005). Fairchild & Finney (2006) explored a range of constructs believed to be related to romantic attachment including Touch (Touch Scale; Brennan, Wu & Love, 1998), Loneliness (UCLA Loneliness Scale-Version Three; Russell, 1996), perceived social support (The Social Provisions Scale; Cutrona & Russell, 1987) and worry (The Penn State Worry Questionnaire; Meyer, Miller, Metzger & Borkovec 1990). Relationship avoidance was found to correlate negatively with affectionate proximity ($r = -.512$), desire to be touched when in need of comfort ($r = -.454$) and positively with avoidance of touch ($r = .511$) and an increased general desire to be touched ($r = .330$) (Fairchild & Finney, 2006). Whilst attachment anxiety was found to be negatively correlated with self-esteem ($F(3, 285) = 47.98, p < .001$) and positively correlated with trait anxiety ($F(3, 259) = 50.91, p < .001$) (Tsagarakis et al., 2007) and worry (Fairchild & Finney, 2006).

Table 5.

Prior Research Convergent Validity for the Experiences in Close Relationships-Revised (ECR-R) Subscales.

	Attachment Anxiety	Attachment Avoidance
Worry (Fairchild & Finney, 2006)	Increased levels of worry.	Not reported
Touch (Fairchild & Finney, 2006)	Non significant result	Increased avoidance of touch. Decrease in affectionate proximity. Increased desire for touch Decreased desire to find comfort in partner.
Loneliness (Fairchild & Finney, 2006)	Increased levels of loneliness	Increased levels of loneliness
Social Support (Fairchild & Finney, 2006)	Decreased levels of social support.	Decreased levels of social support.
Self Esteem (Tsagarakis et al., 2007)	Reduced self esteem [beta] = $-.54$, $p < .001$.	Non significant result
Trait Anxiety (Tsagarakis et al., 2007)	Increased Trait anxiety [beta] = $-.57$, $p < .001$.	Non significant result
Relationship Satisfaction (Sibley, et al., 2005; Tsagarakis et al., 2007)	Reduced relationship satisfaction [beta] = $-.26$, $p < .001$.	Reduced relationship satisfaction [beta] = $-.24$, $p < .01$.
Time spent with partner (Tsagarakis et al., 2007)	Non significant result	Reduced time spent with partners [beta] = $-.31$, $p .01$.
Social Interaction Partner (Sibley, et al., 2005)	Increased anxiety of partner, $\gamma = .46$, $p < .001$.	Increased avoidance of partner, $\gamma = .51$, $p < .001$. Reduced relationship enjoyment, $\gamma = .44$, $p < .001$.
Social Interaction Family Member (Sibley, et al., 2005)	Increased anxiety of partner, $\gamma = .34$, $p < .05$.	Non significant result
Social Interaction platonic friend (Sibley, et al., 2005)	Non significant result	Non significant result

Furthermore, both romantic attachment measures have been found to be related to reduced perceptions of people being available in an individual's social ecology to provide social support (Fairchild & Finney, 2006). Normative data for

convergent validity of the ECR-R has explored the quality of social relationships broader than romantic partners. Sibley, et al., (2005) explored diary entries of social interactions and found that increased attachment anxiety corresponded with increased anxiety in social interactions with families. Analysis of the ECR-R translated for a Greek sample found that attachment anxiety was positively correlated with trait anxiety and negatively correlated with self-esteem (Tsagarakis et al., 2007).

4.14 Limitations to previous literature on ECR-R Norms

As previously mentioned a number of authors have highlighted limitations in the precision validity and reliability of attachment measures (Brennan, et al., 1998; Fraley, et al., 2000; Mikulincer & Shaver, 2003). An important limitation in all of the studies establishing norms for the ECR-R has been the exclusive use of samples from student populations, a limitation noted by a number of authors (Fairchild & Finney, 2006; Tsagarakis, et al., 2007). Many of the studies have utilized convenience samples of student populations often in undergraduate psychology courses with demographic profiles suggesting a predominance of females in their late teens and early twenties (see Table 6).

Researchers have suggested that early internalised beliefs of self and others can change with maturity and relationship experience (Klohn & Bera, 1998) with insecure attachment associated more strongly with poor marital quality than secure attachment (Hollist & Miller, 2005).

Table 6.

Sample profiles of studies norming the psychometric properties of the ECR-R.

Sample Profile indicator	Fairchild & Finney (2006)	Sibley, et al. (2005)	Sibley & Liu (2004)	Fraley et al., (2000)	Tsagarakis, et al., (2005)
Sample Size	429	478	142	1085	291
Percentage Male	39%	30%	27%	37%	26%
Percentage Female	61%	70%	73%	63%	74%
Mean Age	19	20	22	18	21

Furthermore the nature of romantic relationships can differ over the course of the lifespan with mature relationships acquiring relationship experience and adapting patterns of relating (Miller, 2000; Miller, Yorgason, Sandberg & White, 2003). Hollist and Miller (2005) explored attachment styles and their impact on marital quality in a sample of married couples in mature relationship (in relationships over 10 years) between the ages of 40-50. Their results suggested that influence of secure attachment for both men and women has a reduced impact on measures of relationship quality, whilst insecure attachment reduces relationship quality. They suggested that the early years of a relationship establish patterns of behaviour and expectations which impact on quality of the relationship and once set are stable in later years. In this context secure attachment plays a role early in the relationship in forming positive expectations that the other is able to provide care and support and that the relationship is secure forming the foundations for later strength and quality of the relationship. Consequently, secure attachment has been found to have little impact in measures of relational quality in mature relationships. Conversely, insecure attachment behaviour early in the relationship has been found to form negative expectations of the other and the relationship to provide a secure

and safe foundation resulting in poor measures of relationship quality (Hollist & Miller 2005).

The exclusive use of student samples to derive norms for the ECR-R presents challenges to the ecological validity of the measure. The ECR-R explores individual appraisals of their romantic partners with responses found to load on factors of anxiety and avoidance in these relationships. Samples used to derive norms for the ECR-R that are predominantly female psychology students in their late teens or early twenties are likely to have marked differences in attitudes to relationships when compared to a general community sample. A sample with a restricted age range introduces a cohort effect where attitudes and expectations of romantic relationships may be different to older age cohorts represented in a random community sample. The use of a randomised community sample provides an ecologically valid data set to establish norms for the ECR-R as responses reflect the range of experiences in romantic relationships over the life span and across developmental tasks (including independence from home, study, development of a career, establishing long term romantic relationships, establishing families and retirement). To address this limitation in previous research the current study will involve the use of a multi stage cluster sampling technique (de Vaus, 1995) to sample the general community of a large Australian city. This process will be more fully elaborated in the methodology section. The use of randomised sampling techniques derived from community samples are recommended to establish robust norms in social research through limiting confounding variables that impact on data in such a way that significant differences observed in the data can not be attributed with confidence to responses to measures used in the research (de Vaus, 1995; Tabachnick & Fidell, 2001).

4.16 Chapter summary

The current chapter involved an overview of both measurement development and related theories of dimensions and typologies thought to underpin attachment. A detailed overview was provided in the chapter of recent developments in self report measurement of attachment with a focus on inventory development measuring adult attachment in the context of romantic relationships. The development and research findings that have established the norms for the Experiences in Close Relationship Revised (ECR-R; Fraley, Brennan & Waller, 2000) were outlined. A significant limitation in previous research identified with the exclusive use of student samples to derive norms limiting the ecological validity of the measure. Considering this limitation it is proposed that a random community study is need to establish valid community norms.

CHAPTER FIVE**THE FORMATION OF GENDER ROLE ORIENTATION**

Chapter Overview

In the following chapter an overview of literature on gender role orientation exploring current theories and research findings will be presented. A number of theoretical perspectives on the origins of differences in male and female behaviour are outlined. The interplay between attachment theory and gender role orientation is investigated and the impact of both on interpersonal relationships and help seeking explored. The review concludes that within a complex array of gender values that define appropriate behaviour in a given community, extreme masculinity has negative consequences for both health and one's ability to access emotional support.

Understanding differences in male and female behaviour has been a focus of both scientific and popular literature. In popular literature it is often suggested that there are significant differences in the way that men and women relate to one another (Tannen, 1990; Grey, 1993) and this has been supported in scientific research (see Lenney, 1991 for a review). If the popular belief that males and females inhabit different worlds is true these differing perspectives have been likely to be further confused by the lack of definitional clarity and the interchange of terminology.

5.1 Gender terminology

Research into gender roles orientation has often lacked conceptual clarity with concepts of gender, sex and gender role being used interchangeably (Ashmore, 1990; Pryzgod, & Chrisler, 2000). Gender has been conceptualised as a

biological/genetic characteristic, as an internalised trait of the individual and as a social construction. Within the biological context gender is used to define males and females based on socially agreed biological criteria including anatomy, brain structure, hormonal differences and biological/genetic factors that contribute to differences in the way that men and women think, feel and act (Ashmore, 1990; West & Zimmerman, 1987). From an early age humans learn to discriminate between males and females on the basis of anatomical features where the presence of a penis is equated with males and the presence of breasts and a vagina is equated with females (West & Zimmerman, 1987). Gender has also been used to define psychological maleness and femaleness (Bem, 1984). Individuals are understood to orientate with levels of masculinity and femininity which represent internalised culturally determined characteristics that govern appropriate behaviour for males and females (Unger, 1979). Bem (1984) suggested gender role identification as a process where gender appropriate behaviour, skills, preferences, values, personality and self-concepts are acquired and used to guide behaviour based on cultural norms and functions to categorize individuals based on their psychological 'maleness' or 'femaleness' (Bem, 1984).

5.2 Gender as an evolutionary process

According to evolutionary perspectives on gender role orientation differences in behaviour in males and females arise from the need for the human species to reproduce strong viable offspring. This results in differential behaviour designed to attract mates and produce offspring with the highest chance of survival (Buss & Kendrick, 1998). From this socio-biological perspective male and female behaviour differs due to functions each have in the process to produce the most viable offspring. This process of selection incorporates differential gender behaviour

where men compete with other males to select a female to breed emphasising qualities of strength, aggression, competition and dominance. Conversely female behaviour is orientated toward attracting a male that protects and provide resources, often in competition with other females (Buss, 1998; Buss & Kendrick, 1998).

5.3 Gender as a social construction

A social constructivist perspective suggests that people are active agents in determining norms or behavioural codes that define appropriate behaviour within the context of the human interactions within the society in which they are imbedded (Gergen, 1985). From this perspective gender role determined behaviour is an outcome of individual choices and learning though social interactions and where men and women 'do' sex typed behaviour (West & Zimmerman, 1987). Ashmore (1990) suggested a model of gender identity that integrates the social construction of gender and biological characteristics, which are used to differentiate males from females. In this model gender is portrayed in terms of a social category and inter-group relationships that affect the thoughts, behaviour and feelings of the individual (Ashmore, 1990). The model assumes that gender identity and resulting behaviour emerge from complex and dynamic interactions between the individual, groups and the broader social context in which they exist. In this way a specific culture, in which gender appropriate behaviour is defined, can be seen as a set of cultural lenses through which one not only appraises, understands and behaves but also actively defines other's appropriate gender related behaviour.

Hofstede (1998) suggested that masculinity and femininity are relative psychological constructs that are culturally defined. Within this context Hofstede (1998) suggested that masculinity and femininity are not uniform constructs across

culture's but must be understood within the cultural context from which they emerge. These cultural constructs are understood to differ across countries as a function of differences in cultures identification with masculine and feminine qualities. Hofstede (1998) described masculinity to have qualities that included a focus on material success, strength, power and assertiveness whilst femininity expressed qualities of emotional connection, relationship to others, quality of life care and sensuality.

Cultures differ to the extent and strength that they promote cultural norms that organise appropriate behaviour for males and females. Hofstede (1980, 1998) constructed a ranking system for countries based on the relative level of masculinity each country generally adhered to. Societies with low masculinity and high femininity scores promote values and behaviour that emphasise concern for others, emotional expression, gentleness and have been found to discriminate countries (Hoppe, 1998), predict subjective wellbeing (Arrindell, 1998) and values in relationships and marriage (Hofstede, 1998).

Differences in how people navigate and negotiate interpersonal relationships have often focused on male and female differences. Early anthropological work by Mead (1935), conducted with three New Guinean tribes, found differing assignment of gender roles for males and females in each tribe. In the first tribe, the Tchambuli, individuals reversed the common Western masculine and feminine gender roles for males and females. Males took a major nurturing role in children's parenting whilst women involved themselves in the politics of the village and the provision of food. In contrast the Mundugumor people practised cannibalism with both men and women equally assertive and neither tending toward nurturing children but

providing conditions that promoted early independence and competition irrespective of the child's sex. Children were encouraged to take responsibility for themselves as early as possible with parents emphasizing masculine values. Finally, Mead (1935) described the Arapesh, a poor mountain people, who demonstrated qualities largely associated with feminine gender qualities. Both men and women provided extended periods of nurture to children as they matured with gender differences minimised and children treated in a similar manner irrespective of gender (Mead, 1935).

Pleck, (1981, 1995) proposed a model (gender role strain) in which male gender role values arise through the socialization process that determines norms and a masculine gender stereotype with adherence to these norms causing 'strain'. This masculine orientation is suggested to be comprised of three sets of values including toughness (emotional, physical and mental strength), success and status orientation and values that restrict men in behaving in a feminine manner or engaging in prescribed female work/activities (Thompson & Pleck, 1986). This strain in adherence to strong masculine values has been found to impact on the psychosocial health of the man and others in their ecology including reduced intimacy in relationships and reduced relationship satisfaction (Burn & Ward, 2005; O'Neil, Good, & Holmes, 1995; Rochlen & Mahalik, 2004). Gender role conflict has been found to negatively impact on attachment to parents (Defranc & Mahalik, 2002). Secure attachment has been found to reduce restricted emotionality and striving for success, power and competition (Schartz, Waldo & Higgins, 2004).

Ashmore (1990) suggested that culture was rarely homogenous but made up of many sub cultures which can often portray conflicting norms for gender based

behaviour and attitudes. Within this context multiple roles of appropriate gender based behaviour co-exist within one multicultural society exerting influence on the individual's attitudes and behaviour with these cultures sometimes diametrically opposed (Ashmore, 1990). Differences in gendering may be in part due to differences of experience in different microsystems (Leaper, 2002). Within this broader ecological perspective an individual's gender values develop within broader environmental systems including peer groups and educational institutions all set within the context of interacting influences at neighbourhood, regional and national levels (Connell & Messerschmidt, 2005). In this way individual gender and behaviours are understood to evolve from the complex interplay of these systems which promote sometimes conflicting gender role values. The dominant ideology or hegemony that defines appropriate male and female behaviour is modelled through multiple social and private institutions and reinforced through consensus within the context of social interactions (Connell, 2002). Broader regional systems provide a cultural framework that define appropriate gender based behaviour within an interpersonal and social context (Connell & Messerschmidt, 2005). Concepts of masculinity and femininity have been difficult to define often reflecting the constructivist and dynamic nature of the culture, time and context from which they have emerged (Breere, 1990). Changing societal norms that direct male and female behaviour has been noted in the literature particularly in the context of parenting practice (Sterns, 1990). Criticisms in the literature have focused on whether conceptions of gender have arisen as an artefact of the measurement tool used or whether indeed scores reflect underlying constructs of gender identification or some other related construct such as agency and communion or instrumentality and expressiveness (Spence, 1993). With many researchers now accepting that

definitions of masculinity and femininity often reflect the scales used to measure gender role (Ashmore, 1990; Breere, 1990).

5.4 Hegemonic masculinity

Recently theorists have focused on masculine gender role in the context of 'hegemonic masculinity' or an ideal male behaviour that is normative and patriarchal (Connell, 1995, 2002; Connell & Messerschmidt, 2005). A male's gender role orientation is believed to be selected from of a multitude of masculine beliefs available in society concerning appropriate behaviour for males in social interactions (Connell, 1995). This ideal masculinity has values imbedded within that include economic success through work/business, self assurance, risk taking behaviour, competitive individualism, independence, heterosexuality, a capacity for violence and limited expression of intimacy which are expressed in social relationships and in social structures (Connell, 1995; Connell & Messerschmidt, 2005). Theorists have argued that cultural proscriptions that define appropriate male behaviour direct men to minimise emotional intimacy whilst promoting self-reliance through independence (Connell, 1995; Brooks, 1997). Brooks (1997) suggests that males holding strong hegemonic masculine values strongly promote attitudes that minimise deep relationship and emotional intimacy with others and the overvaluing of physical intimacy. Brooks (1997) suggests that this emphasis on physical intimacy over emotional intimacy results in reduced emotionally intimate and supportive relationships with both men and women. This restrictive breadth of intimacy derived from strong masculine values results in reduced dependency in others for emotional support and avoidance of intimacy.

5.5 Gender as a cognitive developmental process

From a cognitive-developmental perspective children use gender as a foundation to categorize themselves and others on the basis of gender roles they observe in their ecology with this awareness developing by the age of three (Kohlberg, 1966). Kohlberg suggested that early awareness of gender is later reinforced through behavioural observation of males and females in their ecology. From these experiences children form stereotypes of acceptable behaviour, which are enacted upon and consequently result in behavioural consistency with both internalised stereotypes and external observations. In this way children behave in such a way to be consistent with the values they have internalised through observation which in turn is rewarded with increased acceptance through conformity with socially determined gender appropriate behaviour, activities and attitudes. Bem (1981; 1984) suggested that individuals integrate societal norms for distinguishing male and female through the development of gender schemas. These schemas involve appraising and assimilating new information through a cognitive process that organises incoming information into gender categories. This results in differential behaviour and attitudes due to differences in perception, appraisals and control of behaviour consistent with cultural definitions of appropriateness (Bem, 1984). Individuals choose behaviours that are appropriate or schema consistent. It is assumed that cultural portrayals for gender based behaviour is transmitted through institutions such as the mass media, institutes of learning and the family which are integrated into cognitive schemas that in turn shape an individual's attitudes and behaviour consistent with societal norms (Bem, 1984).

Bandura's social learning theory (1977; 1986) emphasises the importance of observational learning through modelling and imitation of gender role based

behaviour. Gender roles are acquired through observations of gender role behaviour of others in the child's ecology. Appropriate gender behaviour is reinforced through attentive behaviour by parents whilst gender inappropriate behaviour is punished. Bandura (1977) suggested that imitated learning arises from four processes including attention to the person modelling the behaviour, memory of the modelled behaviour, motivation to perform the behaviour and skills/ability to perform an observed behaviour. Parental reinforcement and discouragement engenders children toward gender appropriate behaviour and career paths (Helwig, 1998). It is the parent-child explorative discourse concerning the child's everyday life events, their emotional responses to these events and the emotional and behavioural responses of others, that foster the development of psychological insight of self and the development of broader cognitive functioning. Furthermore these understandings of self and of others are further expanded to include the child's relationship to peers, teachers and the general community' thus the individual can develop multiple internal relational models often arising from different relationships over time (Bowlby, 1980). It is within this broader context that gender role identification can be understood to develop as the individual integrates gender role values and gender based behavioural expectations from significant role models in their lives and from macro societal values (generally held community values) and micro societal values (derived from localized communities). Through our interactions with others in our world we learn interpersonal skills for positive human relationships (Barber & Olsen, 1997). Results of research suggest that families play an important role in gender socialization (Leaper, 2002a; Leaper & Friedman, 2006). In a large meta-analysis to identify the significance differences in parental socialization of male and female children Lynton and Romney (1991) found significant results with

socialization differences in the encouragement of sex-typed activities and disciplinary strictness.

Early researchers and theorists suggested the notion of two orthogonal personality dimensions, falling along a bipolar continuum (Masculinity and Femininity) and developed instruments that tested these constructs as seen in the Minnesota Multiphasic Personality Inventory (Ashmore, 1990; Sattler, 1993). These early conceptions of gender role were seen as un-testable and subsequently not supported by factor analysis that revealed a number of underlying factors (Ashmore, 1990). Consequential to scientific challenges in the literature a four group typology derived from a median split of Masculinity and Femininity scores was adopted including the addition of androgyny and undifferentiated gender types (Tayler & Hall, 1982). The emergence of psychological androgyny in the literature represents a development beyond the dichotomous view of gender socialization (Masculine and Feminine) toward a view that individuals hold degrees of both masculine and feminine attitudes impacting on a range of interpersonal behaviour. Psychological androgyny is understood as the non-reliance on purely masculine or feminine gender roles and combines both gender roles to cognitively organise information and guide behaviour (Bem, 1984). Androgyny is defined in terms of, or at least as a consequence of, participant's high scores for both masculine and feminine sub scales of popular gender role identification measures including the Bem Sex Role Inventory (Bem, 1981a) and the Australian Personal Description Questionnaire (Antill, Cunningham, Russel & Thompson, 1981).

5.6 Attachment and gender role development

As outlined previously attachment theory provides a developmental framework in which to understand interpersonal relationships and mechanisms to understand their development. Central to attachment theory is the notion that the influence of early childhood relationships with care givers significantly shapes the nature of our interpersonal relationships extending across the lifespan, significantly affecting our emotional health and impacting on the nature of subsequent relationships (Bowlby; 1980, 1982, 1985).

Correlations have been found between attachment styles and measures of masculinity and femininity. Using Hazan and Shaffer's (1987) attachment measure and Spence and Helmlich's (1978) measures of masculinity and femininity, Collins and Read (1990) found that anxiety concerning abandonment correlated negatively with masculinity whilst comfort with closeness and dependence on others correlated positively with femininity. This study suggests that more secure attachment reflected in comfort with interpersonal relationships, were related to androgyny (high measures of masculine and feminine gender identification).

In both bodies of literature an optimum typology (secure attachment and androgyny) has been implicated as having positive health and well being outcomes reflecting mixtures of self-confidence, autonomy, and the capacity for intimate and emotionally expressive relationships (Shaver, Papalia, Clark, Koski, Tidwell & Nalbone, 1996). Attachment style has also been found to impact on areas of gender role conflict with secure attachment correlated with less restrictive emotional expression and less orientated to the pursuit of success power and competition when compared to preoccupied, dismissing, or fearful attachment styles (Schwartz, Waldo & Higgins, 2004).

As already discussed previously Bartolomew and Horowitz (1990) suggested a four category model of attachment based on two underlying dimensions linked to perceptions of self as worthy of affection and perceptions of others as able to give support/affection (see figure 3). Secure attachment is then understood as arising from healthy concepts of self and others. Interestingly this model has face value similarities when compared to gender identification typologies (see figure 1). Comparison of these models highlights that higher identification with masculinity (instrumentality/agency) is aligned to perceptions of self as worthy of affection (high and low anxiety) whilst higher identification with femininity (expressiveness/communion) is aligned with the belief that others are able to provide support (high and low avoidance). Within this theoretic comparison the following typology comparisons result; secure attachment and androgyny, preoccupied attachment and femininity, dismissing/masculinity, fearful attachment/undifferentiated (Shaver et al., 1996).

In a series of studies exploring the similarities between attachment using Bartolomew and Horowitz's (1990) attachment model and measures of gender identification (Bem, 1974; Spence & Helmlich, 1978), Shaver et al. (1996) found evidence that conceptions of gender role and attachment were similar finding that that androgyny and secure attachment were related. More specifically, Shaver's et al.'s results suggest attachment security is related positively with both high masculinity and high femininity indicating gender androgyny.

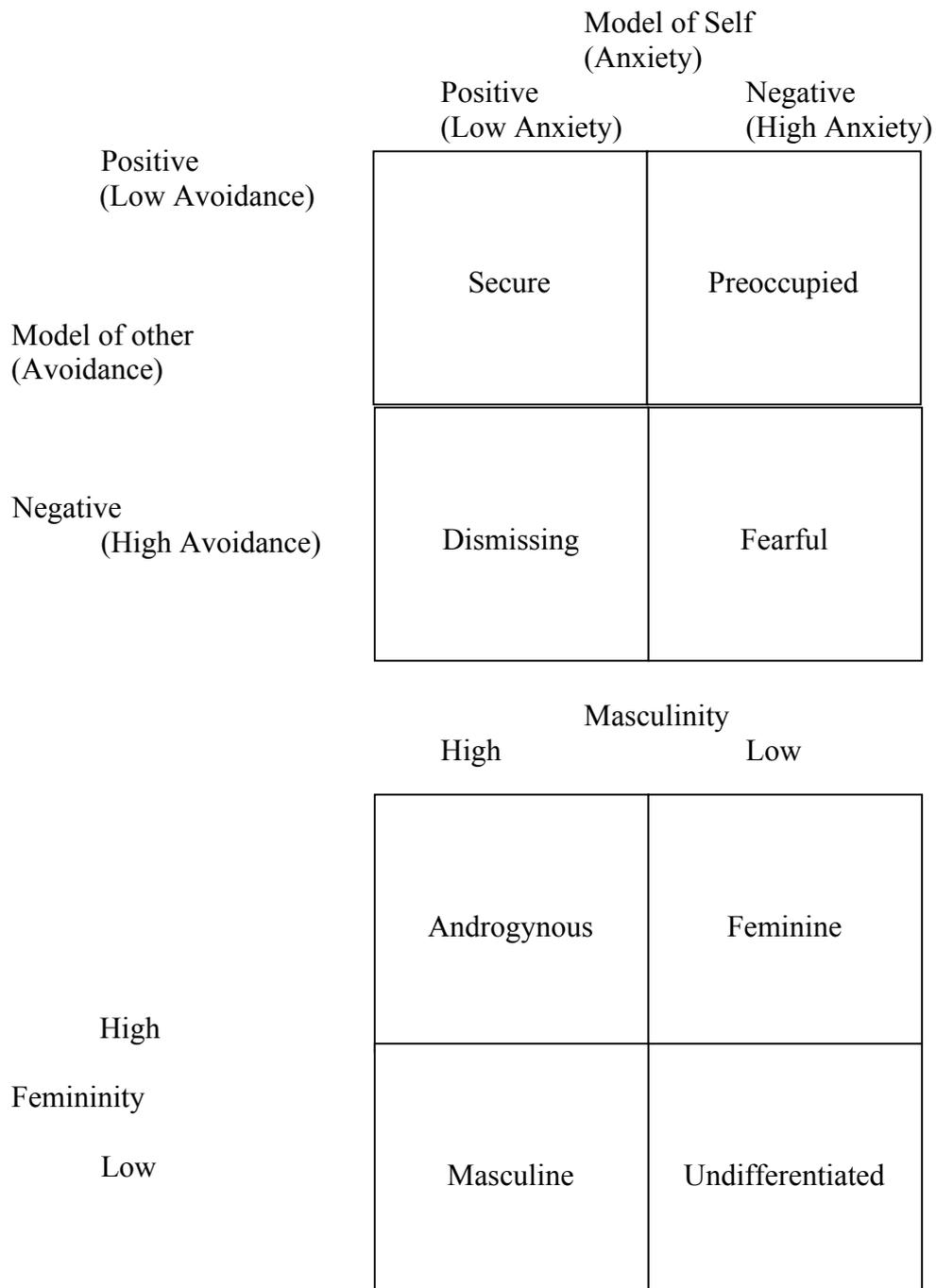


Figure 3. Bartholomew's (1990) four factor model of attachment and Gender schema theory (Ben, 1984).

Preoccupation with attachment figures (anxious ambivalence) was associated with a negative model of self and a positive model of others. Dismissing avoidant attachment was associated with a positive model of self and a negative model of others, whilst fearful avoidance was associated with both negative models of self and others (Shaver et al. 1996).

In their analysis of the relationship between gender and attachment style Shaver et al. (1996) found no differences in secure attachment but found significant differences between men and women in their identification with fearful avoidant and dismissing avoidant attachment styles. Men reported higher dismissing attachment style and women reporting higher fearful attachment. Shaver et al. suggest that 'avoidant males and females are socialised somewhat differently, males learning to deny a need for what they are avoiding (intimacy and emotional vulnerability), females learning to avoid intimacy without denying their need for it' (p.591). This study suggests that there are masculine and feminine forms of avoidance. Shaver et al. go on to suggest that, 'it seems possible that a general pattern of infant avoidance gradually gets moulded by sex role socialization in ways that cause more males than females to become dismissing avoidant and more females than males to become fearful avoidant' (p. 591). These findings are supported theoretically by Bowlby's assertions that attachment patterns are internalised over time starting in infancy, forming a working model of self and of others impacting on the development of interpersonal relationships across the life span (Bowlby, 1982). The findings give strong evidence that attachment security is related to both a positive working model of others (as able to be trusted, loving, caring and to provide support and measured through avoidance of intimacy) and a positive working model of self (as worthy of love attention and help when needed and measured by levels of anxiety).

In a recent study exploring gender role orientation, romantic attachment and dependency Alonso-Arbiol, Shaver and Yarnoz (2002) found that gender differences in emotional dependency were mediated by masculine and feminine gender attitudes. Stronger masculine attitudes significantly decreased both instrumental and emotional dependency whilst increased femininity increased both measures of dependency. The study also involved the exploration of the independent contribution of attachment to dependency measures. Secure and dismissing attachment in romantic relationships was found to have significantly reduced emotional dependency whilst both preoccupied and fearful attachment significantly increased emotional dependency. Anxious attachment correlated with both instrumental and emotional dependency whilst preoccupied attachment correlated with emotional dependency. When attachment variables were combined with socially derived gender role values they had a significant impact on levels of dependency. Feminine attitudes and anxious attachment predicted levels of emotional dependency whilst instrumental dependency was predicted by anxious and avoidant attachment and masculinity. These findings provide evidence for the interplay of both socially derived gender based values and attachment behaviour derived from repeated interpersonal interactions across the life span.

5.7 Gender role differences and impact on psychosocial health.

Gender role identification has been implicated as a significant factor in psychological well being. Levels of androgyny have been found to influence adolescent smoking patterns, (Evans, Turner, Ghee & Getz, 1990), adolescent psychological well-being (Markstrom-Adams, 1989; Helgelson, 1994), body image ratings (Jackson, Sullivan & Rostker, 1988) and emotional expression

(Milovchevich, Howells, Drew & Day, 2001). Researchers have also found that strong masculine gender role impacts on psychological health including increased symptoms of depression and anxiety (Waelde, et al., 1994; Zamarripa, Wampold, & Gregory, 2003). In an early study Waelde and colleagues found that strong adherence to masculine values decreased depressive symptoms for both men and women students in the sample surveyed. This was likewise found for femininity but only for women participants in the sample. Interestingly, masculinity was found not to increase suicidal risk (Waelde, et al.).

In a recent study, Houle, Mishara and Changnon (2008) developed a mediated model that linked masculine values to increased suicide risk through increased psychological distress, reduced access to support and reduced perceived support from others. The research team found that adherence to masculine gender roles not only increased the risk of suicide but also decreased help seeking behaviour, lessened perceived support from people in their ecology increased beliefs concerning the acceptability of suicide. Results indicated that strong masculine values accounted for 20% of the variance for the risk of having a mental disorder in the past year (depression, alcohol and drug dependence/abuse) with this mental disorder increasing the risk of suicide by 6.25 times and not accessing support increasing the risk of suicide by 4.96 times. In the study 60% of participants who attempted suicide had a history of previous suicide attempts and over 45% had experienced a romantic separation.

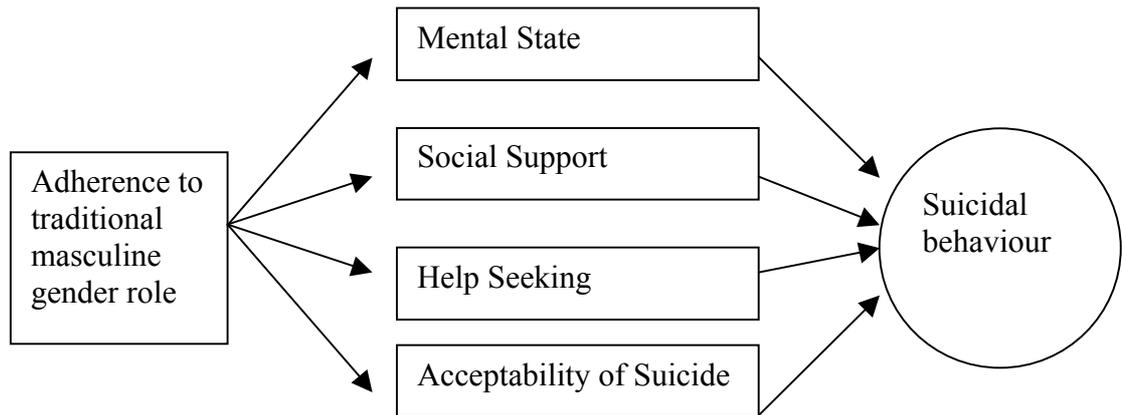


Figure 4. Mediation model of suicidal behaviour in men (Houle, et al., 2008).

In regards to the attachment literature individuals identifying more strongly with feminine and androgynous gender roles have been found to have higher levels of attachment to parents, better levels of communication and trust and experienced less alienation than those identifying with masculine gender roles (Haigler, Day & Marshall, 1995). Though attachment to mothers has been found to be stronger than to fathers irrespective of gender role, values have been found to significantly influence perceptions of attachment to parents (Haigler, et al.). Haigler et al. found that femininity and androgynous gender orientation increased overall attachment to parents whilst masculinity lowered attachment to parents. In a more recent study Forbes and Adams-Curtis (2000) found the attachment to parents was significantly influenced by gender role orientation with both males and females. Males rating high in both masculine and feminine gender attitudes were found to have closer relationships to their mothers. A similar relationship was found between high masculine and feminine values and female attachment to their fathers and close friendships in childhood.

5.8 Gender role and interpersonal relationships

In a study that involved the exploration of the impact of masculine values on

women in romantic relationships, stronger masculine values including orientation toward success, power, competition and restrictive emotionality were found to significantly reduce relationship satisfaction, likewise increasing depression and anxiety symptoms (Rochlan & Mahalik, 2004). In a recent study of the effects of masculinity on relationship satisfaction Burn and Ward (2005) found that increased identification with masculine values decreased relationship satisfaction for both men and women. Men who identified more strongly with masculine values were less satisfied in their relationships with this dissatisfaction also reflected in their partners. Brooks (1997) suggested that strong identification with masculine values emphasises 'non relational sexuality' where emotional intimacy is minimised and it's need suppressed in preference for sexual relationships. Brooks further suggested that the fear of intimacy inherent in strong masculine values results in over emphasis in sexuality reducing an individual's capacity for intimate relationships with both men and women. In a study of both heterosexual and gay men traditional masculine values and a male identity characterized by a lack of psychological relatedness to other men were associated with lower quality romantic relationships (Wade & Donis, 2007). These studies suggest that masculine values that promote self reliance and independence translate into behaviours that minimise support offered by people in the individual's ecology whilst femininity with its strong interpersonal emphasis increases the potential for support.

Whilst masculine values have been found to reduce relationship satisfaction researchers have also suggested that identification with feminine values increases relationship satisfaction. In a study of relationship satisfaction and gender role orientation Langis, Sabourin, Lussier and Mathieu, (1994) found that men with self appraised feminine qualities reported higher levels of relationship satisfaction

especially when they appraised their partner as having some masculine qualities. Likewise, increased identified feminine qualities for females and in their partners increased female relationship satisfaction (Langis et al., 1994). In a recent study femininity was found to predict relationship satisfaction over attachment style (Stiener-Papalardo & Gurung 2002). Stiener, et al., (2002) found that participants higher in femininity were more likely to have positive appraisals of relationship quality, views others more positively (mental representations of others), more likely to approach intimate relationships and be comfortable with emotional intimacy irrespective of their biological gender. Gender differences have also been found in social and relational competence in the broader ecology with increased levels of empathy provided to close friends (Kenny & Gallagher, 2002).

Correlations between aspects of dependency (instrumental and emotional) and gender role attitudes have been found in a number of studies (Bornstein Bowers & Bonner, 1996; Alonso-Arbiol, Shaver & Yarnoz, 2002). In an early study Bornstien, Bowers & Bonner (1996) found that increased masculine identification was associated with reduced emotional and instrumental dependency. Strong feminine orientation correlated with increased levels of both emotional and instrumental dependency. In a more recent study (Alonso-Arbiol, et al., 2002) found similar correlations between gender role and dependency. Differences in measures of dependency were significantly influenced by gender role orientation. The study found that women were more emotionally and instrumentally dependent than men with these differences mediated by gender roles with masculinity reducing both instrumental and emotional dependency scores.

Taken together the research indicates the significant impact of social

definitions of appropriate gender based behaviour the nature of interpersonal relationships.

5.9 Gender role and help seeking behaviour

Studies have indicated that men are less likely to access emotional supports in their ecology than women (Biddle et al., 2004; Galdas, et al., 2005; Hillman, Silburn, Zubrick & Nguyen, 2000). Researchers have explored the relationship between gender orientation and propensity to access emotional supports finding that masculine qualities (including the pursuit of success, power and competition together with restricted emotionality) were associated with negative attitudes toward accessing professional supports (Roberson & Fitzgerald, 1992; Good & Wood, 1995). Identification of masculine gender values has been found to be associated with increased depression whilst reducing access to professional supports (Good & Wood, 1995; Houle, et al., 2008; Wisch, Mahalik, Hayes & Nutt, 1995).

The focus on emotions often portrayed in counselling has also been identified as a barrier when individuals hold strong masculine values. Robinson and Fitzgerald (1992) found traditional masculine values limited propensity to access professional services when these services were advertised as traditional counselling; an emphasis on skills and knowledge workshops increased access. This suggests that the focus on skills and knowledge within a workshop may be perceived as less threatening than traditional counselling due to the low comfort with emotional expression inherent in strong masculine orientation. Indeed in one study the strength of masculine values impacted on the willingness to access counselling with emotion focused therapy being less popular than cognitive behavioural therapy (Wisch, Mahalik, Hayes & Nutt, 1995). Addis and Mahalik (2003) suggest a

number of factors contribute to help seeking behaviour arising from that gender socialization including normative influences where help seeking is understood as uncommon, ego centrality where the problem experience is threatening to the person's view of self, the ability to access support in a reciprocal setting over purely receiving support, others appraisals of their help seeking behaviour and threatened loss of control. In this way masculine gender values are associated with an increased appraisal that problems are a sign of weakness, less common and potentially challenge a man's perception of control. This is supported in recent research suggesting strong masculine values increase negative appraisals of depression and alcohol abuse (Magovcevic & Addis, 2005). This model emphasises interplay of both internal values and beliefs and interpersonal processes operating in searching out social support aligned uniquely for individuals holding strong masculine values.

5.10 Chapter summary

The chapter involved the exploration of the theoretical underpinnings of the development of gender based behaviour suggesting that the integration of gender values arises from the dynamic interplay of multiple cultural definitions of gender modelled in the context of family relationships. Particular emphasis was placed on the association of attachment anxiety and avoidance in romantic relationships with internalised gender-based values directing interpersonal behaviour. Though both gender orientation and attachment theory are conceptually distinct both have been found to converge with an impact on interpersonal relationships and psychosocial health (Shaver et al., 1996). Of particular interest is the impact of gender role orientation on access to emotional support within romantic relationships and in the broader social ecology. In particular, adherence to strong masculine values reduce

the quality of emotional connection within intimate relationships whilst concurrently reducing the access to emotional support in the broader ecology when in emotional need.

The importance of gender role values is highlighted in Adam's narrative aligns with many of the research findings presented in this chapter. He expressed values consistent with a strong masculine orientation including the minimising of emotional expression, the promotion of power and control within his peer network, the primacy of a romantic partner as a sole source of emotional support and the reluctance of accessing emotional support. These values shaped his attitudes to not only his expression of emotional vulnerability but also his help seeking behaviour. Consistent with the literature reviewed in the chapter Adam's narrative indicates a poor functioning emotional support network with his partner identified as his primary support. His strong masculine values also promoted independence and self-reliance whilst also projecting a tough masculine persona that ensured acceptance in a violent street culture. As a consequence Adam was popular and had many friends though many, if not all, were unaware of his emotional distress. Though Adam held many strong masculine values, traditional feminine values emphasising creativity, emotional exploration and sensitivity also appeared through Adam's poetry, artwork and through therapy. The transmission of Adam's masculine gender values is also implicit in Adam's case history. Both the rural community of Adam's childhood and other males in Adam's family ecology share many similar masculine values that shape interpersonal relations. Within a community with multiple values that shape 'appropriate' gender behaviour (Ashmore, 1990) Adam's gender role orientation can be seen within a systems context. From this perspective Adam's gender values and behaviour are set within the interplay of biologically determined characteristics, their stage of cognitive, social or emotional development, interpersonal context

(family or peer group) and broader community systems in which they interact (Bronfenbrenner, 1979).

CHAPTER SIX

INTEGRATION OF THE LITERATURE

Chapter Overview

‘...human beings of all ages are found to be happiest and to be able to deploy their talents to best advantage when they are confident that, standing behind them, there are one or more trusted persons who should come to their aid should difficulties arise.’

(Bowlby, 1973. p. 359).

In the following chapter, literature on parenting, attachment and gender role orientation is integrated within the framework of seeking emotional support.

Australian epidemiological literature on suicide, mental health and access to mental health services is introduced in the chapter. This literature is integrated with literature reviewed in previous chapters and incorporated into themes present in Adam’s clinical presentation outlined in the introduction. Finally the hypotheses for the research are presented.

6.1 Adam revisited: An integration

The clinical case study presented in the introduction outlines a series of events in Adam’s life culminating in the tragedy of him taking his life. His story not only provides a human face to the research reviewed in this thesis but also provides a rich tapestry of events and experiences that highlight a number of themes which have guided research questions in this thesis and the review of relevant literature. Three bodies of literature have been reviewed in previous chapters including parenting (Baumrind, 1991; Maccoby and Martin, 1983), attachment theory (Bowlby, 1969; 1973; 1980) and the development of gender role values (Bem, 1984; Gergen, 1985; Hofstede, 1998). Each body of literature is both relevant to Adam’s

case and more broadly have been found to have a significant impact on psychosocial wellbeing for children and adolescents extending across the life span.

Adam's life and death can be understood in the complex and dynamic interplay of a range of individual and systemic factors occurring over his short lifespan and within the context of a changing ecology in which he and his family were imbedded. This biopsychosocial perspective (Bronfenbrenner, 1979) included his unique biologically determined temperament (Rothbart & Bates, 1998), his progress and acquisition of developmental competencies (Kohlberg, 1981; Inhelder & Piaget, 1958; Piaget, 1972), development of an interpersonal frame work (Ainsworth, 1989; Crittenden, 1995) traumatic experiences resulting in unresolved loss (Bowlby, 1969; 1973; 1980), changing experiences of parenting reflecting changing family dynamics and environments (Baumrind, 1991; Minuchin, 1974) and internalization of values that determine appropriate gender behaviour (Hofstead, 1998).

These individual and family system experiences are further set within changes in local community (from country to city) and changes in regional and national policy toward mental health occurring in this period (Morrell, Page & Taylor, 2007). This broad systemic understanding provides an integrated overview of the complex and dynamic interplay of proximal and distal factors influencing Adam's psychosocial wellbeing including his level of alienation from family and community, his mental health challenges, drug abuse, criminal behaviour and eventually his tragic suicide.

In a recent large epidemiological study Kendler, et al., (2006) found the incidence of psychosocial disorders in adults significantly increased when individuals had experienced adverse childhood events including exposure to substance abuse, parental mental illness, experience of abuse (sexual, physical and emotional), violent treatment, criminality in the ecology and parental separation. A significant proportion of participants (64%) reported at least one adverse childhood experience and with increased adverse events experienced, mental and somatic health symptoms (panic reactions, depression, anxiety, hallucinations, sleep disturbance, obesity) increased. This relationship between adverse childhood events and health consequences was also found in increased problematic drug use, in problem sexual behaviour (early intercourse, promiscuity and sexual dissatisfaction) and with co-morbid presentation (Kendler, et al., 2006).

Within Adam's narrative are a range of experiences that increased his risk of psychological distress and of suicide evidencing maladaptive coping strategies including social withdrawal and self medication through drug abuse.

6.2 The risk of suicide

The completed suicide of an individual has a profound effect not only on family and friends of the deceased but also on the general community. Within Western countries, suicide has become the second most common cause of death among young people, increasing in recent decades (Diekestra, 1985, Pritchard, 1996).

The overall male and female completed suicide rates in Australia, over the last 100 years has remained relatively stable with fluctuations reflecting broader

system factors such as periods of economic turmoil, global conflicts and increased use of barbiturates during the 1960s and early '70s (Baume & McTaggart, 1998). Recent research has indicated a reduction in suicide rates especially in young males aged 20-24 suggesting the success of national programmes such as the National Youth Suicide Prevention Strategy (NYSPS) which have targeted suicide (Morrell, et al, 2007). This decrease has also occurred during increased prescription of antidepressant medication managed through medical practitioners (Hall, Mant, Mitchell, Rendle, Hickie, & McManus, 2003).

A range of risk factors for suicide have been identified in the literature including young (Hillman, Silburn, Zubrick & Nguyen, 2000), males from remote rural Australian communities (Harrison, Moller & Bordeaux, 1997), unemployment, and drug use (Pirkis, Burgess & Dunt, 2000). In an Australian study sample of the general population Chey, Bauman, Brooks & Silove (2006) found that people either living alone, not married or not partnered experienced higher levels of psychological distress. These risk indicators are clearly implicated in Adam's presentation with diagnosed depression, substance abuse and disengagement from education and employment clearly evident.

A significant stressor in Adam's case presentation was his insecure accommodation. Insecure accommodation has been identified as a significant stressor and impact on emotional health. In a study of psychological symptomatology present in homeless young people, Feital et. al. (1992) found that approximately half experienced major affective disorder whilst 30% experienced post traumatic stress disorder (see table 18.). Of the depressive symptoms, 41% of

homeless young people reported suicidal ideations whilst 27% reported previous suicide attempts.

The literature on adolescent suicide not only provides insights into factors that increase risk but also sheds light onto areas of emotional support, access to professional services and treatment which is born out in Adam's narrative and also is a focus of this thesis.

6.3 Mental health prevalence

Epidemiological data from the World Health Organisation have indicated the importance of mental health as a significant issue requiring international attention (WHO, 2003). Self-report data on prevalence of mental health symptoms in Australia have indicated that approximately one in 10 people report having a long-term mental health or behavioural problem with anxiety and mood disorders most prevalent (Australian Bureau of Statistics, 2006).

In a national survey of the Australian population using the Composite International Diagnostic interview (CIDI-A; Peters & Andrews, 1995), Henderson, Andrews and Hall (2000) found that 17.7% of the population (2.38 million people) experienced an anxiety, affective or substance-use disorder in the previous year. Anxiety disorders were most frequently experienced by adults (9.7%) with depressive disorders experienced by 5.8% of the population. The researchers found that women were more likely than men to experience clinical levels of both anxiety and depression disorders in the previous 12 months (Anxiety 11% v 7.1%; Depression 7.4% v 4.2%). The authors suggested that overall these figures are conservative as they do not include the full range of mental health disorders

(schizophrenia, personality disorders and somatoform disorders etc) and are influenced by a self selection bias with 22% of the potential sample refusing an interview or being repeatedly absent.

Chey, Bauman, Brooks and Silove (2006) explored links between social capital and measures of mental health symptomatology from a sample derived from the general community (The New South Wales Population Health Survey) using the Kessler 10 Psychological Distress Scale (K10: Kessler, Andrews, Colpe & Hiripi 2002).

The K10 is a brief 10-item questionnaire designed to measure the level of distress and severity associated with psychological symptoms commonly used in population surveys and in the World Health Organization World Mental Health Survey. The K10 explores participant's feelings of nervousness, hopelessness, restlessness, worthlessness and depression in the preceding month (e.g., how often did you feel so depressed that nothing could cheer you up?) measured on a 5-point scale with a total instrument range of 10-50. Scores are grouped into four levels of psychological distress with very high distress meeting diagnostic criteria for clinical depression and anxiety requiring professional help (Andrews & Slade, 2001).

The Chey et al. study indicated that 4.2% of an Australian general population sample are likely to experience very high levels of psychological distress possibly requiring professional help with 9% experiencing high levels of distress, 24% moderate levels and 63% experiencing little or no psychological distress in the previous four weeks. Of those surveyed more women than men (women 35.5%, men 29.3%) reported moderate to very high levels of psychological distress possibly

requiring professional help as measured by the K10 with strong associations observed between a sense of safety and trust and high/very high psychological distress (Chey, et al.).

Trends in gender differences in mental health distress have also been found in local population epidemiological research (Western Australia) suggesting that 11.2% of females and 7.8% of males report experiencing high to very high levels of psychological distress in the previous four weeks as measured by the K10 (Draper & Codde, 2004). The researchers also calculated that mental health accounted for 214, 886 bed days in hospitals over a one-year period.

In reporting the prevalence rates of depression and anxiety in Western Australia, Molster and Daly (2006) found that females experience a higher degree of both depression and anxiety than males with 21.6% having been diagnosed with depression by a doctor and 15.7% with anxiety compared to 11.6% and 8.3% respectively for men. The current experience of either depression or anxiety symptoms was also found to reflect this trend with 2% of males and 5.1% of females experiencing current symptoms of depression and 2.7% of males and 5.9% for females experiencing anxiety in the last four weeks. Overall epidemiological data for the study sample suggests that 6.6% of males and 9.3% of females 18 years and over, report experiencing high or very high levels of psychological distress over the previous four-week period (Molster & Daly, 2006).

Given the prevalence of mental health challenges and suicide risk in the general population and increasing social uncertainty and financial insecurity as a consequence of the recent international financial crisis, the accessibility of

appropriate emotional support and professional mental services has gained greater poignancy.

6.4 The access of emotional support and professional mental health services.

Therapeutic intervention either within a hospital setting or as part of an outpatient or community setting is not only a forum to build a therapeutic relationship and review life experiences but also plays a vital role for addressing suicidal risk. Governments have increasingly devoted resources to the research and development of interventions and support services targeting those 'at risk' of suicide in an attempt to reduce prevalence rates. Yet research has suggested that a significant proportion of individuals who suicide do not access support in the four weeks prior to death (Vassilas & Morgan, 1997) and following an attempt are unlikely to access out-care support services (Van Heeringen, Jannes, Buylaert & Henderick, 1997).

Van Heeringen et al. found that only 45% of individuals attempting suicide who accessed a hospital emergency department, accessed support services after their attempt. Shaffer, et al. (1996) found that up to 33% of completed suicides had previously attempted with only half having previously accessed professional support services with student samples indicating similar reluctance (Schweitzer, Klayich, & McLean, 1995). In a local study of completed suicides in Western Australia, 63.5% of men who eventually committed suicide had not accessed treatment in the public health services in their lifetime compared to 43.4% of females (Hillman, Silburn, Zubrick & Nguyen, 2000). Of those accessing psychiatric treatment in the 12 months prior to death, depressive illness rated most highly across genders (see Table 9).

When family and friends were asked to recall the emotional state of the person who completed suicide 66.2% of males and 76.3% of females had shown definite signs of depression in the three months before death. Interestingly, 48.4% of males and 20.8% of females did not access any form of professional support in the 12 months prior to their death. Of those who did access professional support general practitioners were the most frequented (see Table 10) (Hillman, et al.).

Table 7.

Breakdown of Psychiatric Illnesses and time since last admission of Patients who Complete Suicide.

Males	Females	
Depressive Illness	44.4%	51.2%
Schizophrenia	14.9%	9.1%
Drug Use	8.7%	3.3
Personality Disorder	5.7%	9.5%
Adjustment Disorder	4.7%	3.0%
Other	4.9%	6.3%
Time since last Admission		
<i>Less than 1 month</i>	<i>10.5%</i>	<i>8.4%</i>
1-2 Months	11.1%	13.5%
2-3 Months	6.5%	8.8%
3-6 Months	13.6%	17.7%
6-12 Months	13.7%	12.1%
Over 12 Months	45.3%	39.5%

Note: Only 34% of males and 52% of females were hospitalized with a psychiatric illness (Hillman, et al.).

Though these figures do not include private institutions and thus are conservative, they suggest that a significant proportion of people at high risk of suicide did not access professional support. Of those who committed suicide and had previously accessed support, a significant proportion had not accessed these

services in the 12 months prior to death and males were significantly less likely to access available support.

Table 8.

Most Commonly Contacted Professionals.

	Females	Males
General Practitioners	31.1%	50.2%
Psychiatrists	22.4%	48.0%
Hospitalization	20.2%	42.1%
Other (Mental Health Workers and Counsellors)	13.3%	21.1%
Psychologists	3.5%	6.6%
Ministers of Religion	1%	1.1%

Note: More than one professional could be nominated in the study (Hillman, et al.).

In a national survey of the Australian population Henderson, Andrews and Hall (2000) using the Composite International Diagnostic interview (CIDI-A; Peters & Andrews, 1995) found that 64.4% of people experiencing mental health symptoms at clinical levels for anxiety disorders, affective disorders and substance use disorders did not access health services in the previous year. The researchers found that 72% of people from the general population experiencing an anxiety disorder accessed no treatment compared to 60% experiencing a depressive disorder.

When accessing support from health service providers for anxiety and depressive disorders General Practitioners (GP) were the most frequently accessed with those experiencing depression (40%) seeking GP treatment more frequently than those experiencing anxiety (28%) (Henderson, et al.). The general population experiencing clinical levels of depression accessed other mental health professionals at greatly reduced levels (Psychiatrists 8.4%, Psychologists 6.2% and other

health/mental health professionals 29%) with similar patterns in access for participants experiencing clinical levels of anxiety. Gender differences in access to professional services were highlighted with women generally accessing services more frequently for both depressive and anxiety disorders with a greater increase in access for anxiety disorders (Henderson, et al.).

In a comparative study between participants completing and not completing treatment after an acute suicidal crisis, a significant proportion of participants manifested avoidant, negativistic and passive aggressive traits likely to affect interpersonal relationships and impacting on their ability to form therapeutic relationships (Rudd, Joiner & Rajab, 1995). The authors suggest that the development of trust, confidence and a general sense of intimacy was difficult to establish for those at suicidal risk and may well have precipitated the suicidal crisis and negated effective access to support. Participants withdrawing from treatment were found to differ from treatment completers in their ongoing experience of interpersonal conflict and stress and persistent anxiety and depressive symptoms.

The literature would seem to indicate that those at highest risk of suicide are also the most unlikely to build this relationship due to their reduced ability to build supportive intimate relationships, their poor trust and confidence in relationships both of which impact on their access emotional support (Rudd, et al.). Indeed literature suggests that men are less likely to access emotional support when experiencing psychological distress (Galdas, Cheater & Marshall, 2005; Houle; et al., 2008) and experience lower perceived support from others (Houle, et al., 2008). This is clearly seen in Adam's presentation where he evidenced reduced access to available emotional supports including withdrawal from family and partner and

from available professional supports when in emotional crisis consistent with dominant masculine values that devalued these supports.

6.5 Factors reducing access to community supports

The access of professional help when in emotional distress is suggested to be influenced by a range of factors that either increase approach or increase avoidance of services (Kushner & Sher, 1989). Prior treatment experience, positive attitudes to treatment and treatment providers has been found to increase intentions to access professional support for emotional problems and when experiencing suicidal ideations (Deane & Todd, 1996; Carlon & Dean, 2000; Kelly & Archer, 1995; Rudd, Joiner, Trautman, Dopkins, & Shrout, 1990). A number of further factors have been identified that increase a person's access to psychological support services including, the presence of psychological distress (Barker & Aldelman, 1994; Rickwood & Braithwaite, 1994), previous contact with psychological services (Dean & Todd, 1996), positive attitudes to seeking professional support (Carlton & Dean, 2000; Deane & Todd, 1996; Kelly & Achter, 1995) and the gender of the person with females more likely than men to access professional services (Dadfar & Friedlander, 1982; Hillman, et al., 2000; Surgenor, 1985; Vessey & Howard, 1993). Dynamics in the family have also been implicated in help seeking behaviour. Valentiner, Holahan and Moos (1994) conducted a study of college students measuring levels of parental conflict, quality of emotional relationships with parents and participant access of emotional supports to assist in coping with problems. In families with high levels of marital conflict participants were less likely to access support which in turn increased psychological distress (Valentiner, et al.). In a study of high school students Carlon and Dean (2000) found that increased suicidal ideation decreased help seeking intentions. Higher levels of suicidal ideation

reduced help seeking intentions in an adolescent sample which was also affected by prior experience of psychological services and having positive attitudes toward seeking out emotional support (Carlton & Deane 2000). Reduced access to professional services when at heightened suicidal risk has also been found in prison populations where prisoners were more likely to access professional services for 'personal emotional problems' than when experiencing thoughts of self harm and suicide (Deane, Skogstad & Williams, 1999). These studies suggest that a constellation of factors impact on the probability of an individual accessing emotional support with many of these factors representing an interaction of values and psychosocial distress.

The hiding of emotional distress from both individuals in one's social ecology and from health care professionals has also been an area of research. In a study of adolescents drawn from general high school populations, Crepeda-Benito and Short (1998) found that people rated as high in concealing personal information were unlikely to seek professional help for psychological and interpersonal problems with higher levels of suicidal ideation being related to lower help seeking behaviour. Self-concealment has been found to inhibit psychological adjustment (Ichiyama, Colbert, Laramore, Heim, Carone & Schmidt, 1993). Rudd, Joiner, Trautman, Dopkins and Shrout, (1990) found that young psychiatric patients identified as at suicidal risk refused to access or accept support services. The researchers suggested that the participants 'negated help' due to maladaptive coping skills arising from passive aggressive negativistic personality traits (Rudd et al., 1990).

6.6 Integrating attachment

Research suggests that the quality of the attachment relationship between the caregiver and the young person has an impact on the development of psychopathology and suicidal behavior. Attachment insecurity as identified through the AAI has been found to impact on emotional regulation based on internal representations of self and others (Kobak & Sceery, 1988). Adolescents with a preoccupied attachment style have reported greater difficulty with romantic relationships and greater emotional distress even with high parental support whilst adolescents with a dismissing style were found to minimize or deny their own emotional distress, have poor support from parents and perceive others as hostile (Kobak & Sceery, 1988). Two studies explored participant recollections of the quality of relationships with attachment figures (Adam, Keller, West, Larose & Goszer, 1994; Martin & Waite, 1994). In the studies, adolescents who attempted suicide recalled lower maternal care and perceptions that the parent was controlling, overprotective, intrusive and likely to interfere with the autonomy of the individual. Adolescents who reported lower maternal care doubled their risk of suicidal thoughts and tripled their risk for deliberate self-harm.

Adam, Sheldon-Keller, and West (1996) used the AAI to explore attachment patterns in adolescents with and without a history of suicidal behavior using a case comparison study design. Adam et al. found the existence of traumatic events did not differ between suicidal and non-suicidal clinical samples but they differed to the extent that attachment trauma was resolved. Unresolved-disorganized attachment trauma (Ud) was found more frequently in suicidal adolescents as evidenced in disfluencies and lapses in the monitoring of reasoning during recall of traumatic attachment events.

It was also found that the presence of (Ud) increased suicidal risk particularly when unresolved participants were also classified as preoccupied. The preoccupied attachment style results in psychological confusion around early attachment figures and results in increased difficulty to resolve these earlier traumas especially when these traumas involved significant attachment figures. The preoccupation with these early traumas further impact on the individual through its effect on later relationships though the choice of partners and an increased likelihood of failure and enmeshment in these relationships. Adams (1994) suggests that suicidal behavior is an extreme form of attachment behaviour occurring in response to a current attachment threat which links to previous unresolved attachment traumas. Adolescents with insecure attachment have a greater sensitivity to relational loss, rejection and disappointments (Adam, 1994).

In a recent qualitative study exploring attachment and suicide in an adolescent population, relational insecurity (to parents and peers) and poor perceptions of self were significantly correlated with suicidal risk (Bostik & Everall, 2006). Many subjects at heightened risk of suicide reported family environments characterized by ongoing conflict, volatility and emotional distress. Furthermore, parenting practice was described as over controlling, over protective and critical with reduced emotional warmth and acceptance (Bostik & Everall, 2006). The consequence on participants was a reduced level of emotional connection and difficulty in communicating with parents, which extended to broader relationships in participants' ecology including romantic relationships and peers. Finally, participants reported having difficulty with self disclosure, emotional expression,

had perceptions of being unsupported and desired emotional connection and acceptance (Bostik & Everall).

The association of attachment style and the presentation of borderline personality disorder characteristics have been implicated in research (Nickel et al., 2002). These results suggest that insecure adult attachment styles reflect an inability to navigate interpersonal relationships and are behaviorally characterized by emotional instability, anger, perceived rejection and suicidal behavior in an attempt to manage attachment related distress (Bartholomew et al., 2001). The individual desires interpersonal security and exhibits attachment behaviour whilst concurrently experiencing heightened anxiety and avoidance with the intimacy they desire. This results in a tension between behaviour intended to attract emotional intimacy and behaviour that keeps intimacy at bay to protect emotional vulnerability. This behaviour is heightened at times when the individual requires emotional support or when experiencing a rupture in interpersonal relationships.

Adam's presentation highlights a number of experiences and modes of operating within interpersonal relationships that have consistencies with attachment research. Adam's experience of the traumatic loss of his mother appeared to be unresolved as evidenced in his poetry—both its frequency of expression and its content, where he voiced the desire to communicate unspoken sentiments and experienced guilt over his mother's death.

Adam voiced on a number of occasions a perception that his father had abandoned him and his siblings, choosing instead to have a new family. His

expression of these beliefs was often set within emotional tones of anger and sorrow.

Adam's insecure attachment is also evidenced through his interpersonal relationships. Adam's relationship with Nancy and her young daughter evidence strong characteristics of insecure attachment. This relationship was often experienced by Adam with anxiety, fear unpredictability and instability. Adam frequently spoke of his fear concerning her safety and possible loss of his best friend resulting in heightened anxiety and emotional distress. This distress was ultimately a trigger for his suicidal crisis.

Adam's romantic relationship also evidences aspects of both anxious and avoidant attachment behaviour in both its insecurity and intensity. Adam's romantic relationship was characterized by instability with a number of break-ups and reunions over a three-year period. This insecurity in the relationships resulted in Adam's girlfriend having diminished trust in Adam and his fidelity. Many friends in Adam's extended social ecology provided limited emotional support due to these relationships being short and transient in nature and often evolving out of a shared experience of street culture.

Adam's narrative and in particular how he navigated interpersonal relationships provide tangible evidence for the impact of insecure attachment on the quality of his relationships, his help-seeking behaviour and ultimately his emotional health. Adam evidences both heightened anxiety and avoidant attachment behaviour across his interpersonal ecology extended from intimate family, romantic partners, friends through to professional support services.

6.7 Integrating gender role orientation

As indicated in the case profile Adam held strong gender values that in many ways shaped not only his behaviour but also attitudes to his interpersonal interactions. Adam verbalized many beliefs consistent with the identification in strong masculine gender role values in the course of therapy. Immersed in drug culture and connected through his older siblings to regional suppliers, he adhered to values that emphasized physical prowess and was known to be able to use violence to settle disputes. This was often not necessary due to his use of charisma to maintain his popular leadership status within his peer group.

He was highly creative and emotionally expressive through art and poetry he shared in therapy, but he also often struggled with the 'tough' image he valued and the inconsistency of both emotional vulnerability and the stoicism he believed he should maintain. This contradiction was evidenced in his maintenance of masculine-orientated interpersonal relationships where his male friends or 'mates', with whom he spent considerable time, provided little or no emotional support.

Conversely his girlfriend represented his only source of emotional support, where he expressed both his creativity and aspects of his emotional world. Interestingly with his death his girlfriend expressed her sorrow that she was unaware of his suicidal ideations and that he had not shared with her his emotional pain. In contrast a male friend, whom he had only met the month before, wept openly for the 'best friend' he had lost and shared heroin with a number of times.

Adam's stoicism and self reliance extended more broadly to attitudes about help-seeking both in his negative attitude toward people in the helping profession, his reluctance to access any emotional support to address his drug use, or access professional support during his suicidal crisis. This was clearly evidenced in his reluctance to access drug treatment as he initially agreed to participate only due to his accommodation being conditional on his attendance.

The literature reviewed on gender role orientation has provided a clear framework from which to understand the transmission etiology of gender-based values. This theoretical framework suggests that gender values that shape 'appropriate' behaviour for males and females emerge from a multiplicity of social values that exist within a society and are transmitted through complex and dynamic interactions at various systemic levels including family, peers, regions and national levels (Ashmore, 1990; Gergen, 1985; Hofstead, 1998; Leaper, 2002).

Poor psychosocial outcomes have been implicated by adherence to strong masculine values (Milovchevich, et al., 2001; Zamarripa, et al., 2003). Adam's gender values that shaped his masculine behaviour are understood to arise out of interactions at various ecological levels (Connell & Messerschmidt, 2005) with significant influences being family, peers and regional areas in which he lived. Anecdotal evidence supporting this is found in the strong masculine values of Adam's father, brother and peers all who promoted and evidenced limited emotional vulnerability, stoicism and self-reliance.

An important factor in shaping help-seeking behaviour is an individual's beliefs concerning appropriate behaviour based on culturally defined expectations of

‘appropriate’ gender-based behaviour. Studies have indicated that strong masculine values significantly reduce help seeking behaviour (Good, Dell & Mintz, 1989; Good & Wood, 1995). In a recent exploration of men’s help-seeking behaviour, Addis and Mahalik (2003) suggested that strong identification with masculine values biased the interpretation of problems experienced and access to needed professional services.

The authors argued that men with stronger masculine values are less likely to request assistance for emotional distress if this experience is not perceived as normative and if it challenges their identity as a man. Furthermore, access to professional support is also reduced if the individual perceives their peers’ masculine norms are challenged, if help seeking is perceived to result in peer rejection, and that he will lose a sense of control of his life by seeking help (Addis & Mahalik, 2003).

In a recent Australian study of men’s attitudes to discussing emotional problems and accessing professional care increased levels of psychological distress reduced access to available treatment (Brownhill, et al., 2002). Heightened symptoms of depression in men resulted in greater intolerance of their own affective state, reduced expressions of distress and help-seeking behaviour and increased self-medicating behaviour (alcohol and mood-altering substances) to distance themselves from emotional pain. In this context of increasing emotional pain, help seeking was perceived as emotional weakness with men tending toward accessing medical assistance for physical complaints rather than emotional problems (Brownhill, et al., 2002).

The development of values that determine appropriate gender-based behaviour is understood as a sociological process where an individual's gender role orientation develops through interactions with subsystems in one's ecology including family, peers and educational institutions and set within regional and national contexts (Connell & Messerschmidt, 2005; Hofstead, 1998).

Within a broader dynamic and changing society there exists a range of values determining appropriate gender behaviour (Ashmore, 1990). Memberships within systemic subsystems determine the gender values transmitted (Leaper, 2002) which is demonstrated in Adam's case history with the influence of the country setting in which he grew as a child and the street culture he participated in as an adolescent. Both these subsystems emphasise strong masculine values. Notwithstanding the importance of broader institutions in the socialization of appropriate gender behaviour, the family system is understood as the primary environment where many values that govern appropriate behaviour are modelled and internalised (Bandura; 1977b; Grusec, 1992; Maccoby, 1992).

The family system is the primary environment in which attachment security is established through repeated interactions between the caregiver and child (Bowlby, 1980; 1982; 1985; Crittenden, 1997a; 2006; Ainsworth et al., 1978). Similarities between attachment categories and gender role values have been established in the literature (Collins and Read, 1990; Shaver et al., 1996) and suggest that the family is the primary environment where schemas that determine interpersonal relationships are integrated (Blatt, 1995). Effective family systems that result in healthy adjustment of children are characterised by parents that are involved and engaged in their children's lives and where a balance between

emotional warmth and control is maintained (Baumrind, 1991a; Maccoby & Martin, 1983; Olson & Gorall, 2003). These families engage in parenting practice that promote emotional closeness/warmth, parental involvement/engagement with children and encourage developmentally appropriate independence and individuality (Olson & Gorall, 2003).

Parenting practice is imbedded within the cultural norms of a given society with these norms varying from country to country (Hofstead, 1998). Given the dynamic multicultural nature of Australian society, variance in parenting practice can reflect differing cultural norms present in various subsystems or cultural groups of our society.

Adam's self reports provided indications of family dynamics and parenting practice within Adam's immediate family which included frequent conflict, reduced levels of paternal emotional warmth, paternal indifference and alienation from the family. Adam described his father as a tough man with strong values that minimized the expression of emotional warmth and the use of authoritarian parenting practice to shape children's behaviour. Adam's case history clearly evidences the interplay of attachment, gender role orientation and aspects of parenting practice. When taken in a broader systemic context the nature of Adam's interpersonal relationships can be understood to arise from the interactions of various subsystems within the family (Minuchin, 1974) and from broader community subsystems in which Adam and his family were imbedded (Bronfenbrenner, 1979).

6.8 The interplay of parenting practice, the formation of attachment and sociological schemas of gender-based behaviour.

A wealth of scientific literature has clearly demonstrated that an individual's early parent-child interactions shape their expectations of others' availability and capability to provide care, support and protection when in need whilst also shaping perceptions of the self as worthy of this care and support (Bowlby, 1980). These internalised working models or heuristics shape expectations of other people whilst also shaping images of self (Bowlby, 1985).

The family ecology, consisting of multiple interpersonal interactions over time, sets the context in which these schemas or internalised models of self and the other are developed (Bowlby, 1982; Young, 1990). The family system is also believed to be a primary forum through which gender role values evidenced in the broader community are enacted and internalised with parents acting as major role models to their children (Ashmore, 1990; Connell & Messerschmidt, 2005; Leaper, 2002).

The parent-child relationship over time forms the basis where children internalize values of self and others whilst also shaping beliefs of appropriate gender-based behaviour concerning interpersonal relationships. The family system in which the parent-child relationship is embedded forms an important interface between broader multiple social values determining appropriate gender-based (Ashmore) and internalised beliefs and relational expectations of self and others born out of the nature of repeated parent child interactions (Bowlby).

Within this systemic context both the mother and father play important roles in the development of attachment schema of their children with the nature of parenting practice found to be a significant factor (Wood & Repetti, 2004; Levy et al., 1998; Nickell, et al, 2002). Previous literature has often emphasised maternal parenting practice without exploring the broader family systemic context of both paternal and maternal parenting and their relative influences (Parker, 2000). In recent years there has been a growing emphasis on the important contribution of fathers in the socialisation of children and their impact on psychosocial health (Marsiglio et al., 2000).

A rich body of literature has developed around categorical or typological understandings of parenting that are often composed of multiple parenting qualities within each parenting style (Baumrind 1991; Maccoby & Martin 1983). These composite typologies made up of a range of parenting behaviours can obscure individual contributions of individual parental behaviours used to create each of the categories (Bean, Barber & Crane, 2006).

In disaggregating parenting practice into defined parenting behaviours, individual effects can be isolated and joint effects between variables explored through canonical analysis. A canonical correlation maps the correlation between a set of independent variables against a set of dependent variables providing both a measure of strength of variable relationship (percentage of variance accounted for in the relationship) and strength of individual dimensions needed to account for the relationship. This statistical method also provides a more elegant analysis of variable outcomes incorporating multi-determined relationships between variables often not captured in simple bivariate analysis. Furthermore, the use of a canonical

correlation enables the researcher to assess the relationship of multiple variables without increasing study wise error occurring when using multiple independent tests (Thompson, 2000).

Using this statistical method, aspects of dysfunctional parenting practice will be explored (indifference, over control and abuse) and their relative impact on outcome variables of attachment (anxiety and avoidance) and gender role orientation (masculinity and femininity). Of particular interest is the impact of maternal and paternal indifference, over control and abuse on the development of internalised schema that forms the foundations of interpersonal relationships.

Though studies have explored the relative importance of harmful parenting factors such as indifference, over protection and abuse and differential effects of both the gender of the parent and child to date few studies have explored these variables in the context of internalised working models of relationship of attachment and gender role formation and symptoms of psychosocial ill health.

Maternal and paternal care and high maternal over control have been found to increase anxious attachment in a number of studies (Carnelley, et al., 1994; Mickelson, et al., 1997), although the impact of paternal dysfunctional parenting has been inconsistent across studies (Nickell, et al, 2002; Manassis, et al.). Given the importance of parental rejection/indifference, over control and abuse on the development of insecure attachment it is expected that these variables will be a significant factors in influencing the development of attachment insecurity reflected in both increased attachment anxiety and avoidance as outcome variables in romantic relationships.

6.9 Study aims and hypotheses

Adam's case profile provides some indications as to the internalisation of values that influenced how Adam navigated interpersonal relationships. Both attachment theory and the theories in development of gender-based behaviour provide a theoretical basis for understanding forces that shape the nature of interpersonal relationships. An interplay is evidenced in Adam's narrative that suggests values drawn from the community that defined socially appropriate gender-based behaviour and unconscious attachment behaviour possibly emerging from repeated caregiver and child interactions. Both one's gender role orientation and attachment schema are principally internalised within the context of family interactions and experiences (Bem, 1984; Bowlby, 1980 1982 1985; Hofstead, 1998; Pleck, 1995). With both these psychological constructs found to correlate (Haigler, et al., 1995; Shaver, et al., 1996).

In Adam's case both strong masculine values and indications of anxious attachment are evident. Furthermore, Adam expresses a strong reluctance to seek professional help whilst minimising his emotional distress. Adam's case history also provides evidence of both unresolved trauma in his mother's death but also gives some indications of negative parenting practice that he may have experienced most notably paternal indifference and over control.

Given the importance of the family in the development and internalization of values that determine the nature of interpersonal relationships, the isolation of particular parenting practices and their impact on both attachment and gender role orientation merit exploration.

Previous research has explored the impact of various parenting practices on the development of attachment schema (Carnelley, et al., 1994; Nickell, et al., 2002). To date no research has explored the impact of parenting practice on both attachment and gender role orientation whilst also exploring the unique contribution of both fathers and mothers in the development of attachment and gender role orientation.

Furthermore, both attachment and gender role orientation have been implicated in help-seeking behaviour both within the immediate family system and in accessing broader community supports and mental health services (Bartholomew, et al., 1997; Markiewicz, et al., 2006; Houle, et al., 2008), although no research has explored the relative contribution of both constructs within the context of differential gender effects.

Finally both constructs have been implicated in not only help-seeking behaviour but have been found to increase the probability of enduring psychological ill-health (Nickel, et al., 2002; Waelde, et al., 1994; Zamarripa, et al., 2003).

An important further consideration in developing the aims of the study was the methodology often used in previous research. Much of the published research has often relied on convenient samples of university students or of clinical populations (Klohn & Bera, 1998).

The use of a multistage cluster sampling technique (de Vaus, 1995) which incorporates four stages in creating a random community sample addresses a significant limitation of previous research. This research methodology not only

provides the opportunity to explore the interaction of parenting, attachment and gender role variables on both help-seeking behaviour and mental health symptoms but also provides useful data to establish community norms for a popular measure of attachment the ECR-R (Fraley, et al., 2000).

In light of the evidenced gap in research and the absence of randomised community samples the current study will be to explore the following aims:

1. To establish the validity of the ECR-R as a measure of romantic attachment through establishing community norms, convergent validity, criterion validity and both confirmatory and exploratory factor analysis.
2. Investigate the impact of adverse parenting variables on the formation of romantic attachment and gender role orientation.
3. Investigate the relative impact of both romantic attachment and gender role orientation on the nature and propensity to access emotional support.

A number of hypotheses arise from these aims. Firstly a number of results are expected indicating an impact of both paternal and maternal parenting practice on internalised models of interpersonal relationship (attachment and gender role orientation). Secondly results are also expected to indicate a relationship between internalised models of relationship and both help-seeking behaviour and symptoms of psychological health.

6.8.1 Investigating adverse parenting practice, attachment and gender role orientation.

Canonical analysis will be used to explore the impact of disaggregated paternal and maternal parenting variables on outcome variables of romantic attachment, gender role orientation and psychosocial health measures. It is expected that adverse parenting variables (over control, abuse and indifference) will have a significant influence on outcome measures of romantic attachment, gender role orientation and symptoms of psychosocial stress with a number of specific hypotheses expected.

1A Independent variables of parental over control and indifference are expected to significantly increase both attachment anxiety and avoidance.

Of particular interest is the relationship between parenting practice and gender role development. The prediction of any relationship between parenting variables (parental indifference, over control and abuse) and development of gender role orientation is made difficult due to the lack of published research. It can be argued that established correlations between attachment typologies and gender role orientation typologies may likewise have a similar foundations based on parenting practice identified in attachment literature (Ainsworth, 1978; Bowlby, 1980, 1982, 1985).

Both attachment style and gender role orientation operate as internalised models of interpersonal relationships arising from the family system and through repeated parent-child interactions (Bem, 1984; Hofstead, 1998; Bowlby, 1980; 1982; 1985). Given the established correlation between both attachment and gender

role orientation and similar links to both mental health and help-seeking behaviour (Alonso-Arbiol, et al., 2002; Haigler, et al., 1995; Shaver et al. 1996).

1B It is expected that paternal indifference, over control and abuse will be associated with stronger internalised masculine values in participants.

The link between maternal parenting practice and the internalisation of gender role values for males and females have likewise not been established in the literature. As key components of femininity are communion and interpersonal connection (Bem, 1984) it is expected that the internalisation of feminine values arise from maternal modelling of behaviour that emphasises the importance of relationships and interpersonal connection.

1C It is predicted that low levels of maternal indifference, over control and abuse will be associated with significant increases in femininity scores in participants.

The experience of rejection, indifference and over protection have been found to also impact on both externalising and internalising symptoms (Muis, et al., 2000; Roelofs, et al., 2006).

1D Both maternal and paternal indifference and over control are expected to be associated with significant increases in symptoms of psychological distress.

6.8.2 Investigating the impact of romantic attachment and gender role orientation on help seeking behaviour.

Finally canonical analysis will explore the relationship between romantic attachment and gender role orientation and measures of emotional support (propensity to access emotional support and the nature of this support). Canonical analysis will also enable the exploration of the impact of these variables on outcome variables of psychological distress and access to emotional support. Previous research has provided evidence for the related nature of attachment and gender role orientation in their impact on psychosocial functioning (Alonso-Arbiol et al., 2002; Collins and Read, 1990; Shaver, et al., 1996).

Although convergence between categories of gender role orientation and attachment was found, the research did not explore the unique contribution of each construct. This study will extend the research by exploring the nature of this interaction with a specific focus on identifying differential gender effects. It is expected that both attachment and gender role orientation will make unique contributions to symptoms of psychological health.

2A Secure attachment represented by low levels of attachment anxiety and avoidance together with low adherence to masculine values will significantly reduce measures of depression, anxiety and stress in males in the sample.

The study will also explore differential gender effects on the nature of supports accessed in an individual's ecology including romantic partners, extended family, friends and professionals available in the community. Significant gender differences in men's and women's access to support services have been found in the

literature (Biddle et al., 2004; Galdas, et al., 2005; Hillman, Silburn, Zubrick & Nguyen, 2000). Previous research has suggested that restricted access to emotional support is a consequence of men holding strong masculine values (Good & Wood, 1995; Houle, et al., 2008) whilst femininity in women has been found to relate to increased comfort with emotional closeness (Collins & Read, 1990; Shaver, et al., 1996).

Strong correlations between attachment and gender role orientation have suggested that low levels of attachment anxiety and avoidance together with strong masculine and feminine values provide adaptive values concerning the availability of others to provide care and protection and ability to access this support (Alonso-Arbiol, et al., 2002; Shaver, et al., 1996). Given these findings attachment and gender role orientation are expected to impact on measures of emotional support differing for males and females.

2B Insecure attachment (high levels of attachment anxiety and avoidance) and gender role orientation (femininity and masculinity) will differentially impact on male and female participant propensity to access emotional support and the breadth of their emotional network.

The profiling of emotional supports accessed by men and women are expected to differ with significant differences in the nature of emotional supports accessed expected to be influenced by both measures of romantic attachment and gender role orientation. It is expected that attachment insecurity in romantic relationships as measured by increased attachment anxiety and avoidance will result in decreased identification of romantic partners as an emotional support.

Heightened attachment anxiety and avoidance is also expected to result in a reduction in partners being identified as an emotional support whilst professionals being identified as sources of emotional supports including both medical and counselling services. Increased masculinity in males is expected to result in romantic partners more likely being identified as an emotional support. No research to date has explored the nature of emotional supports accessed by men and women based on the interaction of romantic attachment and gender role values.

6.9 Chapter summary

Adam's narrative was reintroduced in the chapter incorporating literature on both suicide and help-seeking behaviour. Adam's case history was used to form a framework and focus on factors that significantly impact on both psychological health but also shape the nature of interpersonal relationships within an individual's social ecology. The importance of early attachment experiences between a child and their caregiver were emphasised with repeated experiences of care and protection developing a 'secure base' and a psychological security within oneself as worthy of love and in security in others to be able to provide this care. The preceding chapter also integrated gender role orientation theory with Adam's narrative with an emphasis on suicide and the access to emotional support. The interrelated nature of attachment and gender role values in determining the nature of interpersonal relationships was emphasised. It was argued that the family is a primary environment that shapes an individual's ability to effectively establish and maintain healthy interpersonal relationships integrating both sociological determinants of appropriate gender-based behaviour and creating internalised models of self and others through repeated attachment experiences. Finally, the expected results of the

current research were outlined.

CHAPTER SEVEN**METHODOLOGY**

Chapter Overview

The methodology used in the study is detailed in the following chapter. The multistage cluster sampling technique used to collect the data for the studies is fully described detailing the procedure used to create a random community sample. Furthermore, the population and instruments used in the studies are outlined providing psychometric properties and rationale for use of each measure.

7.1 Ethics committee impact on methodology

The Curtin University Human Research Ethics Committee (HREC) extensively reviewed the research over a three-year period. This review process included 14 submissions for review and resulted in significant changes to both the instruments and finally the methodology used. Principally, the HREC had three areas of concern;

- the perceived level of intrusiveness of the data collection process and instruments proposed.
- ensuring the anonymity of participants following the completion of the survey instrument.
- addressing the emotional support needs of participants should they experience emotional distress at the time of survey or as a result of screening instruments proposed for use.

7.1.1 Intrusiveness of the data collection process

The HREC expressed concern over the level of intrusiveness for community members approached to be part of the research. These concerns resulted in significant changes to both the instruments and the methodology used in the study. The HREC requested the removal of four-item screening instruments for problematic alcohol and drug use (*CAGE*, cut down, annoyed by criticism, guilty about drinking, eye-opener drinks) (Ewing, 1984) and screening questions on suicide risk (The Suicide Behaviours Questionnaire, SBQ) (Linehan, 1981) from the final survey instrument due to concerns that these questions would be perceived as intrusive by community members and would cause emotional distress in participants. The methodology was also significantly adapted to reduce the possibility of perceived intrusion by community members approached to participate in the study. The time of survey was restricted to between 10am and 4pm to ensure minimal disruption to family routines. The HREC also requested the removal of a fifth level of randomisation where household members 18 years and over were randomly selected as this was considered an unnecessary inconvenience to community members. As a consequence, we invited all members 18 years of age and over in an identified household to participate.

7.1.2 Ensuring the anonymity of participants.

The HREC expressed concerns that data collected could be traced to participants and in so doing compromise their anonymity. A process was developed to ensure that all data collected in the survey instrument was decoupled from all identifying information. Signed consent forms were separated from completed surveys. The postcode identifying regional suburbs from which the survey was drawn remained the only broad identifying information linking survey results to

households and participants. As a result multiple respondents from a single household could not be identified, introducing the possibility of nested data. Furthermore, as data was decoupled from identifying information no statistical corrections could be made to the data to counter any nested effects due to multiple respondents from one household introducing a possible confound to the data set.

7.1.3 Addressing the emotional support needs of participants.

Finally, the HREC expressed concern regarding the emotional support needs of participants volunteering to be part of the research project. It was identified that participants could be experiencing emotional distress at the time of the survey or could experience emotional distress as a consequence of completing the survey instrument. Particular concern was expressed that recalling experiences of parenting from childhood may be distressing to participants from the general community. To address this concern while maintaining the participants' anonymity, participants were given information about internet mental health sites (www.beyondblue.org.au), encouragement to contact their general practitioner, local mental health services, using their own support networks of family and friends and contacting the researcher for information about the study or community support services.

7.2 Sampling frame for the study

A multistage cluster sampling technique (de Vaus, 1995), incorporating four stages was used to randomly select participants from the general community for the study. An outline for the sampling frame is found in the appendices. A sampling frame for the Perth Metropolitan region, Western Australia, was established using reference maps from the Streetsmart Directory of Perth (2003). Sampling districts ($n = 104$) corresponding to reference map pages were selected from urban and semi-

rural zoned areas falling within three broad geographic boundaries (major roads and highways) (see Appendix A-3). The final sampling frame covered an approximate area of 87 square kilometres incorporating a range of recently developed high and low socio-economic coastal urban housing developments. The northern boundary of the sampling frame incorporated areas south from Yanchep Beach Road and Gnangara Road as specified by reference map pages 97-98 and 252-256 (Streetsmart Directory of Perth, 2003). Areas north of this boundary were not included as they were made up of predominantly rural districts, logging plantations and national parks.

The eastern boundary of the sampling frame utilized major highways including Wanneroo Road, the Great Northern Highway, Kalamunda Road, Canning Road, Brookton Highway and the South Western Highway. Urban and semi-rural zoned areas falling west of this boundary were included into the sampling frame (Streetsmart Directory of Perth, 2003). The eastern boundary of the sampling frame divided predominantly foothills districts (including rural, light industrial, national parks, state forests, water catchment areas, and small villages) from the Perth urban and semi-rural districts on the coastal plain.

The southern boundary for the sampling frame incorporated urban districts north of Kerosene Road and Mundijong Road including newer urban areas around the City of Rockingham as specified by reference map pages 579-586 (Streetsmart Directory of Perth, 2003). Areas south of this boundary were not included as they were made up of predominantly rural, light industrial and heavy industrial districts. The western boundary was the coast of Western Australia from Yanchep Beach Road to Mundijong Road.

7.2.1 Four stages of the Multistage Cluster Sampling Technique

7.2.1.1 Stage one: Random selection of districts.

The reference map page numbers for the 104 sampling districts in the sampling frame (Streetsmart Directory of Perth, 2003) were randomly sampled using random numbers (de Vaus, 1995, Appendix A-2). The last three numbers of the five number chains in each row were used until 12 districts were identified representing 12.4% of the total sampling frame considered in the study.

7.2.1.2 Stage two: Random selection of blocks

Each of the 12 districts was broken down into one of 50 possible sample blocks utilizing reference map co-ordinates of the respective reference map pages. Five sample blocks were randomly selected using the random numbers table (de Vaus, 1995, Appendix A-2). Letters along the co-ordinate horizontal axis (A-E) were assigned numbers 1 through 5, whilst the numbers forming the co-ordinate vertical axis were used as is creating a range of 10-59 for each district. Blocks were identified using the first two numbers of the five number chains beginning with column one and consecutive columns thereafter until the five blocks were identified. Blocks that were identified in rural districts that were not populated (i.e. plantations and fields) were passed over until populated sample blocks were identified in the district. The final five selected sample blocks represented a 10% sample of the total blocks in any of the 12 given districts.

7.2.1.3 Stage three: Random selection of streets

Streets falling within the bounds of the five selected sample blocks were listed and numbered (Appendices A6 through A-14). Five streets from each block were randomly selected using the random numbers table (de Vaus, 1995). The last

two numbers of each five number chain beginning with the end of the last column and working backwards were used to generate random numbers. When this list was exhausted the first two numbers were used until the five streets were identified for each of the five blocks of any given district. In blocks with numbers of less than five streets all streets were selected.

7.2.1.4 Stage four: Selection of households

Households were approached in each randomly selected street. Households that were found to be unoccupied or did not wish to participate in the study were skipped and the next household approached. As outlined previously the final level of randomisation in households was not applied due to Curtin University Human Research Ethics Committee concerns of excessive intrusion of the research process on participants' time and home environment.

7.2.1.5 Alternation of survey time

To minimise any confounding effects in the data due to the time of data collection, sampling was conducted on both weekends and weekdays. Each of the identified streets were listed and were assigned alternating weekend and weekday survey times. All households were approached between 10am and 4pm to minimise any intrusion to residents.

7.2.1.6 Household Briefing

Each consenting participant was given verbal information regarding the study and the opportunity to ask questions, which ensured the highest level of informed consent. A script was prepared for use by members of the research team to ensure that information for participant-informed consent was standardized (See

Appendix H). Furthermore, surveys provided written information on the study, the treatment of data and important information regarding referral information should any participant become distressed as a result of the survey questions. This ensured that participants were provided with both written and verbal information catering for differing information processing skills/deficits to ensure informed consent.

Participants were given the choice of survey instruments collection, either to be collected by the researcher or to avail themselves of the opportunity to use self-addressed envelopes. Following completion of the survey, participants who requested further information were provided with an opportunity to discuss concerns and ask further questions of the researcher. Participants not wishing to avail themselves of follow-up discussions were provided a further opportunity to discuss the research project through the 'follow-up form' attached to each survey. The form provided participants the opportunity to select alternative methods of further contact including telephone, fax and email and the opportunity to indicate appropriate times of contact by the researcher. It also indicated the nature of any further information required.

Each participant was provided with referral information for local counselling/support services if they experienced emotional distress at the time of the survey or subsequently. This information was provided through three methods, verbally by the researcher (introducing the study, following retrieval of the survey forms and optionally in telephone contact), in written form (information sheet) and via the net (www.beyondblue.org.au web page). The range of options provided participants with a breadth of choices to access both information and support should they require it. The range of options was mindful of differing abilities to access

information in a written form or mode of contact (i.e. informally through the researcher, or web contact or more formally through visiting their local general practitioner).

7.3 Participants

A random sample of 327 participants from the general community of an Australian city was drawn. Individual residents residing in households within randomly selected streets were approached on both weekdays and weekends. Of the 2787 houses, 1609 residents were home at the time of survey, 1169 consented to participate (see table 9). Three hundred and twenty seven participants returned surveys by either return post mail or were picked up by the research team following completion and represented a response rate of 35.7%. The final data set was reduced to 310 after exclusion of incomplete survey forms.

Table 9.

Response rate of the sample

Total houses approached	2787
Houses occupied at time of survey	1609 (57.7% of the sample)
Houses consenting to participate	1169 (41.9% of the sample)
Surveys returned	327 (11.7% of the sample)
Participation rate	20.3%

The general community sample was comprised 111 males (35.8%) and 199 females (64.2%) with a mean age of 42 years (see table 10). The sample profile indicated that two age cohorts were dominant including 18-30 (34.5%) and the 46-60 (35.2%) with 31-45 year olds and 61 years of age and over representing smaller

age groups (22.9% and 5.5%). More than half the sample was employed full time (52%) whilst 57.1% of the sample reported completing post secondary education. 62% of the sample reported currently residing with a romantic partner and 6% living alone or with children. In reported childhood family structure 79% of the sample reported growing up in a family with both parents with a large proportion of the sample identifying as Anglo Australian (64.5%).

Table 10.

Demographic Profile of the Sample

Sample		Sample Total	%
Gender	Male	111	35.8%
	Female	199	63.5%
Age	18-30	107	34.5%
	31-45	71	22.9%
	46-60	109	35.2%
	60+	17	5.5%
Education	Primary	5	1.6%
	Secondary	70	21.9%
	Upper Secondary	58	18.7%
	Post Secondary	177	57.1%
Employment	Full-time	163	52.4%
	Part-time	71	22.7%
	Retired	26	8.1%
	Student	12	3.9%
	Home Duties	23	7.4%
	Unemployed	14	4.2%
Cultural Identity	Asian	17	5.5%
	Anglo Australian	206	64.5%
	Aboriginal & TSI	5	1.6%
	East European	12	3.9%
	West European	22	13.5%
	South American	1	0.3%
	North American	1	0.3%
	African	1	0.3%
Other	22	7.1%	
Childhood Family	Mother + Father	244	78.4%
	Mother	37	11.9%
	Father	3	1%
	Mum & Stepfather	17	5.2%
	Father and Stepmother	2	0.6%
	Other	7	2.3%
Current Living Situation	Alone	45	14.5%
	With Parents	26	8.4%
	Friends/shared house	28	9.0%
	With Partner	96	31.0%
	Partner + Children	95	30.6%
	Alone + Children	20	6.5%

7.4 Instruments

Instruments used in the series of studies were selected with a number of central considerations. An important consideration was to use measures with norms derived from Australian populations. Measures with Australian norms minimise possible confounds based on population differences in ethnic make up and cultural identification by sampling the same population. This sampling of a population with similar parameters and make up strengthens convergent validity between measures intended for use to establish Australian community norms for the Experiences in Close Relationships – Revised (ECR-R; Fraley, Waller & Brennan, 2000). A further consideration was the brevity of each instrument. It was expected that the final length of the survey would impact on participation rates with increased items and length of survey document likely to increase expected time of completion which in turn reduce participation rates (de Vaus, 1995). Finally the use of measures with both psychometric strength and demonstrated previous use in scientific literature ensured results with minimised instrumentation confounds and results that added to previous scientific findings.

7.3.1 People I would talk to about a problem

A forced choice inventory provided participants with an extensive list of potential people who could provide emotional support, when experiencing emotional crisis. The measure was developed after reviewing the literature on social support, in particular measures that quantify support provided by people in an individual's social ecology. Two instruments were considered including the Social Support Questionnaire (SSQ: Sarason, Levine, Basham & Sarason, 1983) and the Social Network List (SNL: Stokes, 1983). In the SSQ the participant is asked to list people they can turn to in times of need (N score for number of supports in an

ecology) and levels of satisfaction (S score for satisfaction). The SNL asks participant to list up to 20 people they have contact with at least once a month. The instrument yields measures of network size, density, and percentage of friends, relatives and confidants that make up social networks. Both instruments measure the breadth of participants' emotional support networks through participants identifying and listing people in their ecology who provide support and to some degree groupings of people.

One limitation to use of these measures is the possible restriction of breadth that arises from participants listing members of support networks. Arguably breadth restriction is possible where participants are limited through writing down all known supports in the context of a number of instruments in a survey document. This process can be time consuming and an exhaustive list may be restricted as a consequence. A second limiting factor in measuring support breath is the upper limit constraint placed on participants (nine or 20 supports) defined by each instrument. In considering these limitations a simple forced choice list of possible emotional supports was created incorporating family, friends, romantic partners and professional support services offered in the local community.

Participants were asked to select all the people that they would consider contacting if feeling low, sad or depressed as a consequence of a possible relationship difficulty/break up, a time of unemployment or a personal crisis. The scale measures the breadth of emotional support (number of people) participants are likely to access and identifies individuals (professional or private) that form individual emotional support networks. The listing enabled individual supports to be identified or individual supports to be collapsed into groupings such as family,

friends or particular professional services. In this way supports accessed during periods of emotional distress could be identified and patterns explored in relationship to gender role and romantic attachment.

7.3.2 Experiences in Close Relationships Questionnaire - Revised (ECR-R; Fraley, Waller & Brennan, 2000).

Fraley, et al. (2000) developed the ECR-R using 'item response theory' from four commonly used measures of adult attachment including The Experiences in Close Relationship Scale (ECR; Brennan, et al., 1998) the Adult Attachment Scales (AAS; Collins & Read, 1990), the Relationship Styles Questionnaire (RSQ; Griffin & Bartholomew, 1994) and the Attachment Scales (AS; Simpson, 1990). Three of the scales were found to have low measurement precision and poorly measured underlying constructs. Whilst ECR was found to have moderate psychometric properties, the authors used 'item response theory' to construct the ECR-R achieving increased measurement accuracy. Item parameter estimates derived from the IRT analysis of the attachment scales were used in a simulation examining test retest stability. The ECR-R is a questionnaire that assesses anxiety and avoidance as two dimensions of attachment. ECR-R consists of 36 items (18 items for each subscale), each rated on a seven-point Likert type scale where 1 = Never or almost never true and 7 = Always or almost always true. Items in the anxiety subscale include "Sometimes romantic partners change their feelings about me for no apparent reason" and "I worry a lot about my relationships". Example items in the avoidance subscale include, "I find it difficult to allow myself to depend on romantic partners" and "I am nervous when partners get too close to me". Scores are summed for each dimension and two scores produced indicating the degree of difficulty with regard to the dimension being measured. In simulated analysis test-

retest reliabilities are reported as; Anxiety .94 and Avoidance .95 (Fraley, Waller & Brennan, 2000). The ECR-R is stable over six-week period in student populations with 86% of variance accounted for by both subscales (Sibley & Liu, 2004). The two factor structure has been confirmed in a number of studies (Fairchild & Finney, 2006; Sibley, et al. 2005; Sibley & Liu, 2004). Internal consistency of the scales have been established in the literature (Sibley & Liu, 2004) likewise convergent validity using student populations including touch, loneliness, social support and worry (Fairchild & Finney, 2006), social interactions (Sibley, et al. 2005) and alcohol abusing parents (Kelley et al., 2004).

7.3.3 Personal Description Questionnaire (PDQ; Antill, Cunningham, Russell & Thomson, 1981).

The PDQ incorporates both positive and negative statements concerning femininity and masculinity. The PDQ was developed from Australian samples for use in sex role classification. The PDQ has two forms comprising 40 descriptive characteristic statements each (10 feminine positive, 10 feminine negative, 10 masculinity positive and 10 masculinity negative items) which are combined to generate two subscales, Femininity and Masculinity. Participants rate the accuracy of statements on how characteristic each is of them, recording their responses on a seven-point Likert scale with 1 = never or almost never true to 7 = always or almost always true. Sex role classifications of femininity, masculinity, androgyny and undifferentiated are generated by dividing the scores from the two scales using a median split. Form A was used in the current study due to its superior scale reliability coefficients (Russell & Antill, 1984). The internal consistency of the scale has been demonstrated to have acceptable coefficient alpha level ranging from .69 to .84 (Antill et al., 1981; Farnhill & Ball, 1985; Russell & Antill, 1984) with factor

analysis finding two factors corresponding to masculinity and femininity in Australian samples (Russell & Antill). The validity of the scale has been demonstrated in research with self esteem positively relating to masculinity and negatively to femininity (Russell & Antill, 1984).

7.3.4 Relationship Questionnaire (RQ: Bartholomew & Horowitz, 1991).

The RQ is a self-report attachment scale and was chosen to establish concurrent validity to the ECR-R (Fraley, Waller & Brennan, 2000). The measure is based on four brief relationship profiles describing Secure, Fearful, Preoccupied/enmeshed or Dismissive attachment styles. Participants are asked to self categorise indicating which of the four statements best describes them. Each of the four statements is rated on a five-point scale measuring the degree that participants identify with each of the statements (1 = not at all like me/my partner to 5 = extremely like me/my partner). The scale has been used widely in attachment research and found to have adequate validity with reported alpha coefficients ranging from 0.87 to 0.95 (Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994). The scale has been shown to have adequate validity correlating with measures of self concept, interpersonal functioning and the nature of family relationships (Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994; Scarfe & Bartholomew, 1994; Klohnen & Bera, 1998). The original scale was modified from a seven point scale to a five point scale to be consistent with other response formats in the survey. The five-point scale has been successfully used in previous research on attachment (Bookwala & Zdaniuk, 1998).

In the current study, the four ratings of attachment were combined to create two dimensions of attachment anxiety and avoidance (Griffen & Bartholomew,

1994; Bartholomew & Shaver, 1998), a procedure previously used in research (Feeney & Collins, 2001). Scores for both secure and dismissing attachment styles were combined. This score was then subtracted from the sum of both preoccupied and fearful attachment styles (negative sense of self) resulting in the Anxiety dimension (range -12 to +12). Higher scores indicate higher anxiety concerning one's self worth and lovableness. The second dimension of avoidance was created through the sum of dismissing and fearful attachment scores being subtracted from the sum of secure and preoccupied attachment scores. High scores in attachment avoidance (range -12 to +12) indicate increased tendency to avoid relationship with others and viewing others as unavailable.

7.3.5 Depression Anxiety & Stress Scale (DASS; Lovibond & Lovibond, 1995)

The DASS-21 is a brief version of the DASS (42 items) and is a self-report measure of negative emotional states including depression, anxiety and stress. The DASS-21 consists of 21 negative emotional symptoms where participants rate the extent they have experienced each in the last week, recording their responses on a four-point scale. The measure was developed as a screening tool and normed on an Australian population. The measure forms three scales; Depression, Anxiety and Stress; with alpha coefficients ranging from .84 to .91. and test-retest correlations ranging from .42 to .48 (Lovibond, 1998). The DASS has been shown to have adequate convergent and discriminant validity (Crawford & Henrey, 2003; Lovibond & Lovibond, 1995). Both the Beck Depression inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) and Beck Anxiety Inventory (BAI; Beck, Epstein, Brown & Steer, 1988) have been found to correlate with the depression scale ($r = .74$) and the anxiety scale ($r = .81$) in student samples (Lovibond & Lovibond, 1995) with similar results in clinical samples (Antony,

Bieling, Cox, Enns & Swinson, 1998). Convergent and discriminant validity has also been established with the Hospital Anxiety and Depression Scale (HADS: Zigmond & Snaith, 1983) and Positive and Negative Affect Schedule (PANAS: Watson, Clark & Tellegen, 1988) in general community samples (Crawford & Henry, 2003). The brief version has been found to have a high level of internal consistency with depressed and anxious patients (Anxiety .81, Depression .92, Stress .88) (Clara, Cox & Murray, 2001) and in non-clinical samples (Anxiety .89, Depression .94, Stress .93) (Crawford & Henry, 2003).

7.3.6 Network Orientation Scale (NOS; Vaux, Burda & Stewart, 1986)

The NOS is a 20-item scale assessing an individual's willingness to utilize their social support network through appraisal of thoughts, attitudes and expectations concerning their social network's potential ability to provide support in times of need. The instrument measures an individual's willingness to maintain, nurture or utilize social supports in assessing potential to access professional or community helping resources with a negative network orientation indicating an unwillingness to access social support. Examples of items include "other people understand my problems" and "some things are too personal to talk about". The instrument was normed on an ethnically and culturally diverse American student population. The NOS has demonstrated an adequate to high internal consistency (alpha range from .60 - .88) in student samples (Vaux et al., 1986) non-psychiatric populations (Belle, Dill & Burr, 1991) and psychiatric populations (Cecil, Stanley, Carrion & Swann, 1995). Convergent validity has been established between the NOS and Multidimensional Scale of Perceived Social Support (MSPSS: Zimit, Dahlem, Zimit & Farley, 1988) in out-patient populations (Cecil et al., 1995). Poor network orientation has been found to correlate with poor appraisals of support and

small support networks and lower self esteem, whilst positive scores were associated with feminine gender role orientation (Bell et al., 1991; Vaux et al., 1986). The scale has minimal correlation with social desirability (Kazarian & McCabe, 1991). Furthermore psychiatric samples have been found to be less likely to access support when compared to normal samples (Cecil et al., 1995).

7.3.7 Measure of Parenting Style (MOPS; Parker, Roussos, Hadzi-Pavlovic, Mitchell, Wilhelm & Austin, 1997).

The MOPS was developed as a simpler version of the Parental Bonding Instrument (PBI: Parker et al., 1979) aimed at identifying dysfunctional parenting. The instrument asks participants to rate child parenting experiences of both their mothers and fathers using a four-point scale. Subscales in the instrument include indifference, over-control and the experience of physical and sexual abuse. The internal consistency of the instrument and its subscales has been reported as satisfactory with a three-factor solution accounting for 55% of variance. The instrument has been found to discriminate between students and psychiatric patients with significantly higher scores on all three factors correlated to 82.2% of psychiatric diagnoses. Increasing levels of adverse parenting (indifference, over-protection, and abusive parenting) has also been found to be associated with borderline, anxious, depressive, and self-defeating personality disorders. In research describing the MOPS development Parker et al., (1997) demonstrated both construct and convergent validity for its first two scales against PBI scores, while support for the abuse scale was demonstrated by cross-reference to subjects' reports of exposure to a number of specific abusive situations. Furthermore indifference has been found to increase the risk of suicidal behaviour in depressed women (Ehnvall, Parker, Hadzi-Pavlovic & Malhi, 2007).

7.4 Data preparation and screening

Data was entered into SPSS and reviewed for missing cell values. A number of cases were excluded due to either the total absence of responses to instruments or partial responses. Cases with less than nine responses for either subscale for the ECR-R were excluded reducing the original data set from 327 to 310. Missing values for individual cells (absent participant response to items) were calculated using the mean of the related factor items from which the absent cell was identified (Tabachnick & Fidell, 2001). Further exclusions of cases due to incomplete responses to the RQ resulted in a final data set of 296, subsequently used in comparative analysis between the RQ and ECR-R. A number of cases with incomplete data were identified for a number of instruments (DASS, PDQ and NOS), these were subsequently removed from the data set. Cases with no responses to either mother or father MOPS scales were likewise removed (See appendix).

Identified items for the ECR-R were reversed scored (4, 5, 8, 10, 11, 12, 15, 17, 18, 21, 23, 27, 29, 31) likewise for the NOS (3, 5, 8, 12, 13, 15, 17, 18, 20). Using the procedures recommended by Tabachnick & Fidell (2001) inspection of outliers were identified for the ECR-R and its scales. One case was identified as a univariate outlier for the anxiety scale having a leverage value greater than 0.5. Six cases using Mahalanobis distances three standard deviations from the mean were identified for the ECR-R. As the data was derived from a random sample of the general population outliers were retained as extreme values were deemed to be meaningful and had no apparent response bias.

7.5 Chapter summary

This chapter gave a detailed overview of the methodology, the instruments chosen and their psychometric properties that were used in the subsequent studies. The use of both a randomised sample of the Australian population incorporating a multistage cluster sampling technique (de Vaus, 1995) and use of instruments with established norms for the same population provide robust foundation for subsequent analysis exploring the psychometric properties of the Experiences in Close Relationships Questionnaire Revised (Fraley, Waller & Brennan, 2000). Given the paucity of research using randomised community samples in the literature, the current methodology provides a strong foundation to analyse relationships between parenting variables, gender-role orientation, romantic attachment and general psychosocial health measures.

CHAPTER EIGHT

FULL RESULTS OF THE STUDY.

Chapter Overview

The following chapter outlines both data preparation and results for the three studies. The chapter firstly details the procedures used to ensure integrity of the data set focusing on procedures used to deal with missing data and tests of statistical assumptions. The demographics of the random community sample are then described comparing results with epidemiological and population based research from regional and national Australian samples. Finally, the results of the three studies are presented. The first study outlines results from analysis of data to establish community norms for the Experiences in Close Relationships Revised (ECR-R; Fraley, Waller & Brennan, 2000). The second study outlines the impact of parenting practice variables on romantic attachment and gender role. The final study explores the impact of both romantic attachment and gender role orientation on measures of psychological distress, propensity to access emotional support and the nature of emotional support accessed.

8.1 Testing normal distribution of the data

Testing and inspection of score distributions for each of the instruments and respective subscales was conducted for the total sample. Furthermore, as gender comparisons were to be made in a number of studies and sample sizes for males and females were considerably different, inspection of the distribution of scores based on gender was conducted. Inspection of the distribution of scores generally indicated a positive skew for many of the participant responses to the scales in both

the total sample and the sample divided by gender. Few scores fell outside the +2 to -2 range for normal distribution (Tabachnick & Fidell, 2001). Participant responses to mother indifference and mother abuse for the total sample and by gender revealed a strong positive skew with many results falling above 3 with female responses more strongly skewed than males. Father abuse was found to be marginally above the desired cut off for both the total sample and for the sample divided by gender. Results for male depression likewise was found to be marginally above the desired cut off.

The kurtosis of a number of scales were found to deviate from a normal distribution of data indicating a leptokurtic profile (> 3 Pearson's kurtosis). This suggested that scores were highly peaked with flat tail distributions. A number of scales exceeded the +2 to -2 preferred range with a few exceeding the more lenient +3 to -3 range (Tabachnick & Fidell, 2001). Many of these scales revealed a negative kurtosis indicating many participant responses fell in the tail of the score distribution (see Table 11). Parenting subscales (mother indifference and abuse and father abuse) were found to be strongly leptokurtic with mother indifference for males and mother abuse for the sample measuring above 10. Depression and anxiety for both the total sample and both genders were likewise leptokurtic with only depression for males and anxiety for females rising above the lenient +3 cut off.

Inspection of the Box and whisker plots likewise revealed a non-normal distribution of participant responses to a number of instruments and subscales. Mean lines fell to the beginning of rectangles and a number of whiskers suggested scores greater than 1.5 inter-quartile range. A number of scales indicated outliers beyond

the whiskers. Box plots for Attachment anxiety, attachment avoidance, support, masculinity and femininity indicated normal distribution profiles.

Visual inspection of the histogram and the stem and leaf plots provided further evidence for the positive skew in score distribution for both the total sample and for males and females. The normal quantile by quantile (Q-Q) plot for many of the scales indicated participant scores cumulative proportions mapped reasonably well with the expected test distribution. The detrended Q-Q plots likewise indicated that scores for many of the scales were distributed reasonably well against the hypothetical distribution line. This suggested that scores for many of the measures fitted hypothetical normal distributions. It was noted that scores to instruments including the ECR-R, PDQ and NOS approached normal distribution profiles. Measures of parenting experiences (MOPS) extent of emotional support network and psychological distress (DASS) fitted a one tail distribution profile.

The Shapiro-Wilks W test was used to test the assumption of normal distribution of scores on the various instruments and subscales. Testing indicated that participant scores failed to meet assumptions of normal score distribution for both the total sample and the sample divided by gender. Many of the instruments and subscales were found to have significant results thus rejecting the null hypothesis of a normal distribution of scores. Scores on attachment anxiety and avoidance subscales of the ECR-R did not conform to a normal distribution in the general sample with females indicating the strongest deviation. A normal distribution of scores were indicated for both the total sample and the sample divided on a gender basis and responses to masculinity and femininity subscales of the PDQ. Participant scores on the NOS (propensity to access emotional support)

were found to be normally distributed for males and females but not for the total sample. Given the strong evidence for atypical distribution of scores and conflicting evidence between visual appraisal and statistical results the Mann-Whitney non parametric test was used to gain further evidence for score distribution. Non-parametric indicated that mother control, masculinity, femininity and propensity to access emotional support were normally distributed (see table 11). Given these results future testing would use test results assuming unequal variances for attachment anxiety, attachment avoidance, father indifference, father abuse, father control, mother indifference, mother abuse, depression, anxiety and stress.

Inspection of score distributions and both parametric and non-parametric testing indicated that many participant scores on instruments and subscales used in the studies failed desired normal score distributions. Instruments with non normal distributions were designed either to indicate the presence of psychological distress symptoms or measure the experience of adverse childhood experiences. Participant responses and their resulting distribution reflected the expected nature of a random community sample with positively skewed leptokurtic distribution of scores (see Table 11). Participant responses to parenting subscales of the MOPS (parental indifference, parental control and parental abuse), for both their mothers and fathers, evidenced a high frequency of low scores on the three subscales. This suggested that participants drawn from a random community sample more frequently reported positive parenting experiences. Likewise distribution of scores for subscales of the ECR-R (attachment anxiety and attachment avoidance within romantic relationships) indicated that a higher frequency of participants experienced low anxiety with emotional vulnerability their relationship and avoidance of their romantic partners. Participant responses and their resulting distribution reflected the

expected nature of a random community sample with positively skewed leptokurtic distribution of scores. In essence the general public experienced an increased frequency of positive parenting experiences, healthy attachment in relationships, low incidence of psychological distress symptoms and healthy functioning emotional support networks. No distribution transformations were conducted to the data as the distribution of score meaningfully represented responses from a general populations sample (Tabachnick & Fidell, 2001).

Table 11.

Descriptive measures and normality test results across male and female respondents and for the total sample.

Scale	Male (<i>n</i> =104) Female (<i>n</i> =191) Total Sample (<i>n</i> =298)	<i>M</i>	<i>SD</i>	Ske w	Kurt	Shapiro Wilks Test	Mann Whiney U Test
Attachment	Male	45.77	17.06	.35	-.71	.967 (.05)	NS
Anxiety	Female	58.38	19.78	.61	-.10	.962 (.001)	
	Total Sample	55.24	47.68	.54	-.20	.966 (.001)	
Attachment	Male	54.69	20.55	.06	-.88	.973 (.05)	NS
Avoidance.	Female	52.13	21.24	.43	-.44	.969 (.001)	
	Total Sample	53.36	21.22	.31	-.62	.975 (.001)	
Father	Male	9.34	4.38	1.66	2.45	.768 (.001)	NS
Indifference	Female	9.39	4.88	1.53	1.45	.732 (.001)	
	Total Sample	9.35	4.69	1.58	1.77	.743 (.001)	
Father	Male	7.06	3.32	2.11	4.44	.677 (.001)	NS
Abuse	Female	6.94	3.58	2.15	3.79	.609 (.001)	
	Total Sample	6.97	3.47	2.13	3.97	.633 (.001)	
Father	Male	6.91	2.66	.89	.07	.894 (.001)	NS
Control	Female	7.08	2.89	.97	.12	.881 (.001)	
	Total Sample	7.02	2.81	.94	.11	.887 (.001)	
Mother	Male	7.09	2.11	3.08	11.09	.570 (.001)	NS
Indifference	Female	7.88	3.80	2.66	6.92	.563 (.001)	
	Total Sample	7.59	3.31	3.00	9.55	.543 (.001)	
Mother	Male	5.82	1.82	2.82	8.46	.524 (.001)	NS
Abuse	Female	6.43	2.99	2.82	8.20	.548 (.001)	
	Total Sample	6.21	2.64	3.07	10.35	.526 (.001)	
Mother	Male	6.81	2.56	1.17	1.07	.894 (.001)	8515 (.01)
Control	Female	7.89	3.22	.70	-.36	.881 (.001)	
	Total Sample	7.50	3.04	.88	.04	.902 (.01)	
Masculinity	Male	57.63	10.34	.01	-.19	NS	9044 (.05)
	Female	53.98	9.58	.19	.68	NS	
	Total Sample	55.24	9.98	.15	.23	NS	
Femininity	Male	65.44	7.79	-.26	.12	NS	8948 (.05)
	Female	68.06	8.82	.08	-.24	NS	
	Total Sample	67.12	8.50	.04	-.02	NS	
Breadth of	Male	4.73	3.47	1.04	.99	.910 (.001)	8596 (.01)
Emotional	Female	5.52	2.830	.72	.96	.957 (.001)	
Support	Total Sample	5.26	3.12	.81	.85	.948 (.001)	

Scale	Male (<i>n</i> =104) Female (<i>n</i> =191) Total Sample (<i>n</i> =298)	<i>M</i>	<i>SD</i>	Ske w	Kurt	Shapiro Wilks Test	Mann Whiney U Test
Propensity to Access Emotional Support	Male	55.83	6.57	-.25	1.18	NS	8454 (.01)
	Female	57.99	6.43	.04	0.22	NS	
	Total Sample	57.16	6.55	-.06	0.58	.992 (.01)	
Depression	Male	2.93	4.04	2.04	4.19	.729 (.001)	NS
	Female	3.43	4.41	1.79	2.94	.762 (.001)	
	Total Sample	3.29	4.30	1.82	3.08	.756 (.001)	
Anxiety	Male	2.38	3.16	1.71	2.81	.764 (.001)	NS
	Female	2.77	3.42	1.77	3.16	.778 (.001)	
	Total Sample	2.70	3.39	1.68	2.70	.780 (.001)	
Stress	Male	4.24	3.85	1.37	2.47	.882 (.001)	NS
	Female	4.84	4.28	1.09	0.76	.894 (.001)	
	Total Sample	4.67	4.17	1.17	1.16	.890 (.001)	

Assumptions of normality were tested with Shapiro-Wilks W test indicating that the assumptions of normal distribution were not met for participant scores for the ECR-R (anxiety $df(298) = .966, p > .001$; avoidance $df(298) = .975, p > .001$), NOS $df(298) = .992, p > .001$); DASS (depression $df(298) = .756, p > .001$; anxiety $df(298) = .782, p > .001$; stress $df(298) = .890, p > .001$). Multivariate normality was tested. The histogram of standardized residuals indicated that residuals were plotted outside the normal distribution curve. Assumptions of multicollinearity and singularity were tested. Tabachnick & Fidell (2001) consider bivariate correlations as high when above .90 in a correlation matrix. Inspection of the correlation matrix found no bivariate correlation's above .90 indicating no singularity or perfect correlations on measures of anxious or avoidant attachment. Analysis of the collinearity diagnostic revealed no correlation above .9 indicating no multicollinearity (Tabachnick & Fidell, 2001).

Sampling adequacy was tested using the Kaiser-Meyer-Olkin (KMO) statistic on the items of the ECR-R. The overall KMO statistic indicated a high margin of sampling adequacy (0.896). The standardised residual scatterplot (see appendix K) revealed a random pattern in the distribution of residuals indicating no violations to homoscedasticity (Tabachnick & Fidell, 2001). As reported above scores meaningfully represented the responses of a random community sample (see table 21) and consequentially no changes the distribution of scores were made (Tabachnick, & Fidell, 2001).

8.2 Results to establish validity of the Experiences in Close Relationship

Questionnaire Revised (ECR-R).

8.2.1 Means and correlations of scales

Pearson's bivariate correlations were used to assess demographic variables relationship to dependant measures of attachment anxiety and avoidance. ECR-R measures of Anxiety and Avoidance were compared to similar RQ measures (see table 12). Both ECR-R and RQ measures of Anxiety and Avoidance were strongly correlated (Anxiety $r(296)=.517, p<.01.$; Avoidance $r(296)=.532, p<.01.$) establishing convergent validity. Both ECR-R and RQ measures were found to be correlated (RQ Anxiety & Avoidance $r(296)=.207, p<.01.$; RCR-R Anxiety & Avoidance $r(296)=.556, p<.01.$).

Table 12.
Correlation Matrix Relationship Questionnaire and Experiences in Close Relationship Questionnaire Revised

	ECR-R Anxiety	ECR-R Avoidance	RQ Anxiety	RQ Avoidance
ECR-R Anxiety	1			
ECR-R Avoidance	.552	1		
RQ Anxiety	.518	.328	1	
RQ Avoidance	.257	.526	.203	1

Note: All correlations are significant at the 0.01 level.

8.2.2 Principle components exploratory analysis.

A principle components exploratory factor analysis with oblique rotation and Kaiser normalization was performed on the 36 items of the ECR-R from the random sample data using SPSS (N = 310). Using the Kaiser criterion (eigenvalues under 1.0 excluded) a total of eight factors with eigenvalues greater than the one criterion were uncovered which accounted for 65.413% of the variance (Tabachnick, & Fidell, 2001). Eigenvalues indicated a steep decrease in value levelling out after three factors (11.985, 3.579, 1.731, 1.613, 1.290, 1.178, 1.104, 1.068). Inspection of the Cattell scree test plot suggested both a 2 or 3 factor solution could account for the data after subsequent factors incrementally levelled out adding little to added variance.

The factor loadings for each of the scales were explored and identified in Table 14. It is noted that a number of items for each of the scales loaded poorly, shared loadings on both scales or failed to load on the expected scale. Two items failed to load on the anxiety scale and had weak loading on the avoidance scale. Three items in the avoidance scale indicated weak to moderately loading on both

scales with two items loading moderately on the anxiety scale and weakly on the avoidance scale. The internal reliability of each of the scales were assessed and found to be adequate with Avoidance ($\alpha = 0.92$) and Anxiety ($\alpha = 0.90$) surpassing the desired Cronbach's coefficient alpha minimum ($\alpha > .70$ for research and $\alpha > .90$ for clinical applications) (Nunnally, 1978) and consistent with previous research (Fraley et al., 2000; Sibley & Liu, 2004). The combined variance accounted for by both subscales totalled 44.41%.

Table 13.

Factor Loadings for the ECR-R with item profiles (Means, Standard Deviations, Skewness and Kurtosis).

Item	Anxiety	Avoid	M	SD	Skew	Kurt
I'm afraid that I'll lose my partner's love	.809		1.96	1.144	1.061	.279
I worry that romantic partners won't care about me as much as I care about them.	.805		2.04	1.137	.894	.026
I often worry that partner won't want to stay with me	.777		1.76	1.042	1.450	1.517
When I show my feelings for romantic partners, I'm afraid they won't feel same for me.	.740		2.02	1.066	.872	-.037
I worry a lot about relationships	.733		2.26	1.215	.636	.689
I often worry that partner doesn't really love me.	.722		1.95	1.186	1.032	.023
I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.	.701		1.81	1.075	1.118	.171
I often wish that my partner's feelings for me were as strong as my feelings for him or her.	.696		2.22	1.335	.766	-.660
I worry that I won't measure up to other people	.659		2.39	1.251	.503	-.776
I find that my partner(s) don't want to get as close as I would like	.646		2.04	1.158	.849	-.288
When my partner is out of sight, I worry that he or she might become interested in someone else	.620		1.72	1.024	1.359	1.031
My desire to be close sometimes scares people away	.616		1.75	1.072	1.326	.785
It makes me mad that I don't get the affection and support needed from my partner	.584		2.25	1.205	.671	-.538
My romantic partner makes me doubt myself	.567		1.74	.989	1.197	.597
My partner only seems to notice me when I am angry	.473		2.25	.840	.065	.276
Sometimes romantic partners change their feelings about me for no apparent reasons	.354		1.91	1.003	.951	.240
I rarely worry about my partner leaving me		-.297	2.62	1.504	.374	-1.320
	#					
I do not often worry about being abandoned			3.05	1.531	.066	-1.503
	#					

Item	Anxiety	Avoid	<i>M</i>	<i>SD</i>	Skew	Kurt
I talk things over with my partner		-.815	2.16	1.150	.818	-.102
	#					
I tell partner just about everything		-.803	2.21	1.145	.766	-.170
	#					
Its easy for me to be affectionate with my partner		-.800	2.05	1.143	.946	-.032
	#					
It helps to turn to my romantic partner in times of need		-.785	2.20	1.177	.821	-.143
	#					
I feel comfortable sharing my private thoughts and feelings with my partner		-.770	2.27	1.228	.636	-.689
	#					
I usually discuss my problems and concerns with my partner		-.770	2.30	1.214	.600	-.590
	#					
I am very comfortable being close to romantic partners		-.767	2.50	1.203	.488	-.562
	#					
I find it relatively easy to get close to my partner		-.757	2.30	1.170	.727	-.251
	#					
It's not difficult for me to get close to my partner		-.682	2.53	1.289	.449	-.890
	#					
I find it easy to depend on romantic partners		-.680	2.93	1.263	.131	-.996
	#					
I feel comfortable depending on romantic partners		-.654	2.78	1.300	.256	-.981
	#					
My partner really understands me and my needs		-.639	2.50	1.235	.493	-.722
	#					
I prefer not to be too close to romantic partners		-.423	1.90	1.129	1.189	.617
I don't feel comfortable opening up to romantic partners		-.408	2.29	1.154	.478	-.780
I prefer not to show my partner how feel deep down		-.337	2.51	1.128	1.124	.367
I find it difficult to allow myself to depend on romantic partners	.385	-.336	2.46	1.250	.416	-.877
I am nervous when partners get too close to me	.480		1.80	1.085	1.170	.419
I get uncomfortable when a romantic partner wants to be very close	.434		1.88	1.110	1.124	.367

Note: Loadings >0.3 are printed. All items listed in discrimination order. # signify items reversed coded.

8.2.3 Confirmatory factor analysis and factor model fit.

The factor structure of the ECR-R was explored through a confirmatory factor analysis (CFA) conducted using LISREL 8 (Joreskog & Sorbom, 1993). A range of measures were used to examine the strength of the model goodness of fit including the residual based fit index (The standardized Root Mean square Residual; SRMR with cut off value $\geq .08$) and indices of comparative fit including; Comparative fit index (CFI; with cut off value of $\geq .95$), Goodness of fit index (GFI; with cut off value of $\geq .95$) and Root mean square error of approximation (RMSEA; with cut off value of $\leq .06$) and Non-normed fit index (NNFI; with a cut off value of ≥ 0.95) as suggested by Hu and Bentler (1999).

Published research validating the ECR-R have used randomised parcelling of items to confirm factor structure and using a range of fit indices. This procedure pools variance into high order clusters reducing the original thirty-six items to twelve with the resulting six items predicted to load on the original two factors of the ECR-C. Replicating previously published research the individual items for both subscales of ECR-R (anxiety and avoidance) were randomly assigned into six groupings of three variables for both subscales. Both the residual based index and goodness of fit indices suggested robust findings with a two factor model best fitting the data. The SRMR results fell short of the 0.08 cut off value (SRMR = 0.055). Individual fit indices indicated general support for a two factor model. CFI and NNFI results were all greater than 0.95 (CFI 0.99, NNFI 0.98). Notably the RMSEA result fell slightly above the 0.06 cutoff (RMSEA = 0.070) whilst GFI results fell slightly short of the 0.95 cut off (GFI = 0.93) consistent with findings in previous research (Fairchild & Finney, 2006; Sibley & Liu, 2004) (see table 14 for cross study findings). The correlation between latent factors of anxiety and

avoidance were found to be comparatively higher than previous studies drawing samples of college students ($r = .58$, with a standard error of .04).

Table 14.

Model Factor fit Results for ECR-R across studies.

Fit Indicator	Fairchild & Finney (2006)	Sibley, et al. (2005)	Sibley & Liu (2004)	Tsagarakis, et al., (2007)	Current Study
Standardized root-mean-square residual (SRMR $\leq .08$)	0.072	0.03	Not Reported	0.05	0.055
Comparative fit index (CFI $\geq .95$)	0.96	0.98	0.97	0.97	0.99
Goodness of fit index (GFI $\geq .95$)	Not Reported	0.92	0.92	Not Reported	0.93
Root mean square error of approximation (RMSEA $\leq .06$)	0.073	0.05	0.068	0.06	0.070
Non-normed fit index (NNFI $\geq .95$)	Not Reported	0.99	0.96	Not Reported	0.98
Correlations between factors	0.51	Not Reported	0.42	0.43	0.58

Both one factor and two factor models were compared on a range of fit indicators and tested using a chi-square difference test (χ^2) to identify the best fit model. Results indicated that the two factor solution was a significantly better fit than a single factor, difference in $\chi^2 (2) = 741.73, p < .001$ supporting general fit indices favoring a two factor solution (see table 15 for fit indicator results for both factor solutions).

Table 15.

Model Factor fit.

Factor Fit	SRMR	CFI	GFI	RMSEA	NNFI	RMR	AGFI
1 factor model	0.27	0.85	0.27	0.25 (0.24; 0.26) ^a	0.82	0.196	0.44
2 factor model	0.055	0.99	0.93	0.070 (0.055; 0.085) ^a	0.98	0.39	0.90

Note: CFI = Comparative fit index; SRMR = Standardized root mean square residual; GFI = Goodness of fit index; RMSEA = Root mean square error of approximation; NNFI = Non-normed fit index; RMR = Root mean squared residual; AGFI = Adjusted goodness of fit index. a. 90% confidence intervals for RMSEA.

Standardized loading of item parcels on latent factors were explored. Loadings for individual parcels for the anxiety factor ranged from 0.63 to 0.83 whilst corresponding avoidance parcels ranged from 0.73 to 0.87. A strong proportion of variance was accounted for by the grouped items associated latent factors of Anxiety (R^2 range 0.40 to 0.70) and Avoidance (R^2 range 0.54 to 0.76). Only one parcel of three items associated with Anxiety fell below the R^2 figure of 0.50 (see Figure 5.).

Review of the literature highlighted that a number of studies have used parcelling techniques on ECR-R whilst others have analysed the full thirty six items. A number of limitations to the procedure of randomly assigning items to parcels or clusters were identified. In clustering the items into twelve composite items comparison between validation studies becomes difficult as this procedure obscures the original individual item loadings on underlying factors of the ECR-R.

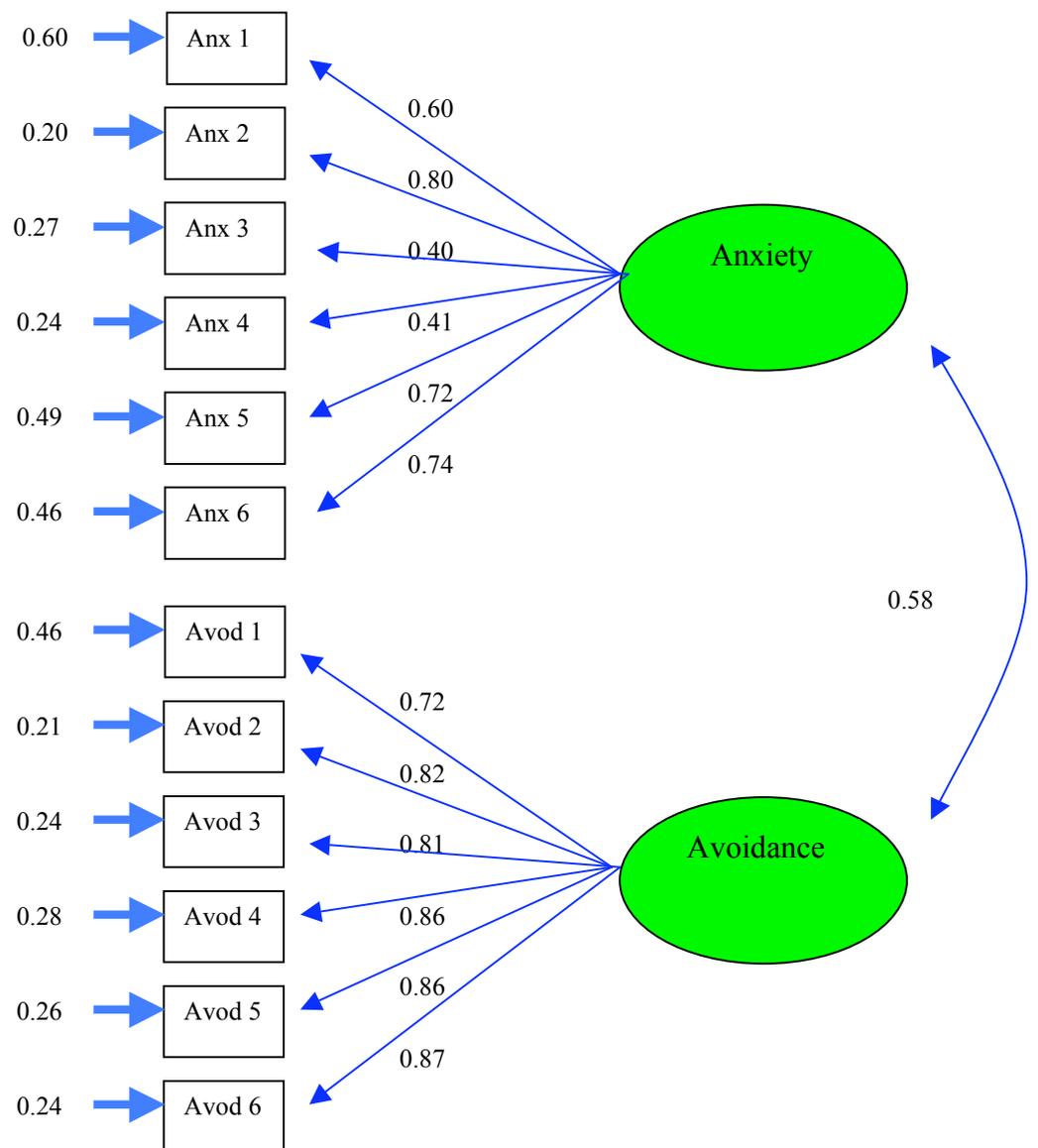


Figure 5. Factor Loadings for the ECR-R.

The procedure also distributes the variance of three individual items within one cluster arguably strengthening the potential loading of the new clustered item on each of the subscales with stronger individual items supporting weaker items in each cluster. Furthermore as each cluster is randomly created and not guided by a theoretical justification the randomisation of individual items to form clusters is not uniform between studies thus the resulting twelve items differ across studies.

Finally and most importantly no theoretical justification has been established by researchers to account for a higher order structure of the ECR-R whereby the original thirty-six items are reduced to two subscales made up of six composite items. Arguably this procedure masks the true loadings profile of items strengthening results through a averaging effect resulting in more favourable results. To address these limitations the factor structure of the original thirty-six items for the ECR-R was again explored through a confirmatory factor analysis (CFA) using LISREL 8 (Joreskog & Sorbom, 1993). Heywood errors suggested a number of badly conditioned items where error variance of items were negatively correlated. To further test the factor structure of the thirty-six items a multiple group factor analysis with oblique rotation using least squares was conducted to provide further confirmatory evidence of the ECR-R factor structure (see Table 16). Results indicated that both scales were correlated ($r = 0.57$) and achieved a strong overall pattern fit (0.97). Both scales likewise indicated strong overall patterns of fit (anxiety 0.98, avoidance 0.96) with individual item fits ranging from 0.710 to 1.000 and a majority of items scoring higher than 0.970.

Table 16.

Multiple group factor analysis factor loading and item fit for ECR-R.

ECR-R Items	Avoidance Loading	Anxiety Loading	Item Fit
1. I prefer not to show my partner how I feel deep down.	0.376	-0.021	0.997
2. Sometimes romantic partners change their feelings about me for no apparent reason.	0.147	0.332	0.836
3. I find it difficult to allow myself to depend on romantic partners.	0.377	0.190	0.798
4. My partner really understands me and my needs.	0.526	0.024	0.998
5. It's not difficult for me to get close to my partner.	0.574	-0.101	0.970
6. I prefer not to be too close to romantic partners.	0.484	0.044	0.992
7. It makes me mad that I don't get the affection and support I need from my partner.	0.048	0.498	0.991
8. I find it relatively easy to get close to my partner.	0.624	-0.006	1.000
9. I don't feel comfortable opening up to romantic partners.	0.461	0.072	0.989
10. I usually discuss my problems and concern with my partner.	0.607	-0.065	0.989
11. I rarely worry about my partner leaving me.	0.106	0.173	0.726
12. I tell my partner just about everything.	0.657	-0.100	0.977
13. I often worry that my partner doesn't really love me.	0.009	0.574	1.000
14. I am nervous when partners get too close to me.	0.353	0.231	0.700
15. I feel comfortable depending on romantic partners.	0.574	-0.091	0.976
16. I often wish that my partner's feelings for me were as strong as my feelings for him or her.	-0.064	0.615	0.989
17. It's easy for me to be affectionate with my partner.	0.668	-0.098	0.979
18. I am very comfortable being close to romantic partners.	0.658	-0.036	0.997
19. I'm afraid that I will lose my partner's love.	-0.060	0.665	0.992
20. My desire to be close sometimes scares people away.	-0.109	0.546	0.961
21. I talk things over with my partner.	0.675	-0.047	0.995
22. I worry that romantic partners won't care about me as much as I care about them.	-0.084	0.657	0.984

23. I find it easy to depend on romantic partners.	0.608	-0.092	0.978
24. I worry a lot about my relationships.	-0.089	0.601	0.979
25. When my partner is out of sight, I worry that he or she might become interested in someone else.	-0.060	0.541	0.988
26. When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.	-0.011	0.618	1.000
27. It helps to turn to my romantic partner in times of need.	0.643	-0.044	0.995
28. My romantic partner makes me doubt myself.	0.107	0.475	0.952
29. I do not often worry about being abandoned.	-0.014	0.216	0.996
30. I find that my partner(s) don't want to get as close as I would like.	-0.009	0.523	1.000
31. I feel comfortable sharing my private thoughts and feelings with my partner.	0.666	-0.067	0.990
32. I often worry that my partner will not want to stay with me.	-0.023	0.623	0.999
33. I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.	0.079	0.531	0.710
34. I get uncomfortable when a romantic partner wants to be very close.	0.324	0.207	0.710
35. I worry that I won't measure up to other people.	-0.059	0.526	0.988
36. My partner only seems to notice me when I am angry.	0.086	0.511	0.972

8.2.4 Criterion Validity for ECR-R Scores.

Criterion validity of ECR-R was explored comparing responses from the randomised community sample across a range of psycho-social health measures. Both romantic attachment anxiety and avoidance were found to correlate significantly with mental health symptomology including depression, anxiety and stress. Participant willingness to utilize their social support network was also found to negatively correlate with both anxiety and avoidance, whilst attachment avoidance alone correlated with the breadth of ones support network (see table 17).

Table 17.

ECR-R Criterion Validity.

	Anxiety Subscale	Avoidance Subscale
Propensity to Access Emotional Support	-.225**	-.447**
Breadth of Available Emotional Support Network	-.008	-.133*
Depression (DASS)	.470**	.368**
Anxiety (DASS)	.449**	.308**
Stress (DASS)	.428**	.218**

α . * $p < .05$, ** $p < .001$

8.2.5 Experiences in Close Relationship Questionnaire Revised sample norms

Population norms based on gender and age were calculated (see Table 18).

Table 18.

Sample norms.

	Mean	SD	Participant number	Percentage of sample
Anxiety Scale				
18-30	51.45	20.12	106	34.5
31-45	46.78	19.28	71	22.9
46-60	44.78	17.82	108	35.2
60+	42.53	11.99	17	5.5
Males	45.67	17.03	109	35.8
Females	48.38	19.88	193	63.5
Avoidance Scale				
18-30	52.64	21.72	106	34.5
31-45	52.54	20.63	71	22.9
46-60	52.97	20.93	108	35.2
60+	55.68	20.01	17	5.5
Males	54.85	20.64	109	35.8
Females	51.81	21.19	193	63.5

8.3 Results of analysis of the impact of parenting on attachment and gender role.

8.3.1 Testing gender differences

Differences in gender were explored in a series of independent sample t-tests measuring attachment (anxiety and avoidance), gender role (masculine and feminine), both maternal and paternal parenting practice (emotional indifference, control and abuse) and measures of emotional support. Males and females were found to differ significantly in both measures of masculinity $F(1, 302) = 1.216, p < .05$, and femininity $F(1, 305) = 2.76, p < .01$. Males were found to identify with stronger masculine values while females were found to identify with strong feminine values.

Significant gender differences were found in participant recollections of their mothers parenting practice abuse $F(1, 300) = 9.684, p < .05$; emotional indifference

$F(1, 300) = 15.65, p < .05$ and control $F(1, 300) = 11.78, p < .01$. Males and females were also found to differ significantly in both measures of masculinity $F(1, 305) = 1.216, p < .05$ and femininity $F(1, 305) = 2.76, p < .01$). The results suggest that males in the sample held weaker negative appraisals of their mothers parenting practice than women in perceptions of their mother's emotional indifference, over control and abuse. Significant gender differences in gender role identification suggested that males identified more strongly than women with masculine values whilst women identified more strongly than men with feminine values.

Gender differences were also identified in propensity to access emotional support $F(1,301) = .08, p < .01$, and in the breadth of available support networks $F(1, 305) = 3.79, p < .05$. Females identified significantly more people in their emotional support network and indicated a stronger propensity to access emotional support than men. No significant gender differences in symptoms of depression or anxiety were found in the sample whilst women were found to experience more symptoms of stress in the previous week than men.

5.3.2 Correlation of attachment and gender role measures.

Pearson's bivariate correlations were used to assess relationship between measures of romantic attachment (avoidance and anxiety) and gender role orientation (masculinity and femininity). Attachment avoidance within relationships was found to negatively correlate with masculinity gender role $r(310) = -.117, p < .05$ and attachment anxiety in romantic relationships positively with femininity $r(310) = .227, p < .01$ supporting expected results (see table 19).

Table 19.

Correlation Matrix for subscales of the ECR-R and PDQ.

Variables	1	2	3	4
ECR-R	1			
Anxiety				
ECR-R	.55*	1		
Avoidance	*			
PDQ	-.04	-	1	
Masculinity		.12*		
PDQ	.23*	.02	-.10	1
Femininity	*			

** Correlation significant at .01 level.
* Correlation significant at .05 level

8.3.3 Canonical analysis parenting, romantic attachment and gender role:

Hypotheses 1A, 1B and 1C.

A canonical latent variable correlation was conducted using SPSS with covariate canonical variables of parenting practice of mothers and fathers (Indifference, over-control and the experience of abuse) and dependent variables of attachment (Anxiety and Avoidance) and gender role orientation (masculinity and Femininity) on the total sample.

1A Independent variables of parental over control and indifference are expected to significantly increase both attachment anxiety and avoidance.

Canonical correlation results indicated that one root was significant, Wilks's $[\lambda] = .811$, $\chi^2 = 61.747$, $p < .001$ and accounting for 39.3% of the total variance. The recommended cut off for determining the variables that significantly contribute to the canonical variate is suggested ($> -/+ .3$) (Tabachnick & Fidell, 2001; Thompson, 2000). Results indicated two negative loadings on romantic attachment and gender role dependent variables. The canonical root was characterized by a strong negative loading on father indifference (-.787) and

moderately strong loading on mother over control (-.471) these variables had the outcome a very strong loading on attachment anxiety (-.867). These structure coefficients suggest that fathers who showed less indifference to their children together with mothers not exercising excessive control resulted in decreased attachment anxiety in romantic relationships in their adult children.

Separate canonical analyses were conducted on the sample separated on the basis of gender to highlight any differential results of parenting on romantic attachment and gender role orientation based on gender differences. Canonical correlation results for females in the sample indicated that one root was significant, Wilks's $[\lambda] = .741$, $\chi^2 = 55.498$, $p < .001$ and accounting for 45.0% of the total variance. Inspection of the canonical root indicated a number of variables that significantly contributed to the canonical variate with loadings greater than $-/+ .3$ (Tabachnick & Fidell, 2001; Thompson, 2000). Father's emotional indifference (-.899) and mothers over control (-.408) impacted significantly on female attachment anxiety (-.945) in romantic relationships. Results for males in the sample indicated no significant correlations between parenting variables, attachment in romantic relationships and gender role orientation (see Table 20).

1B It is expected that paternal indifference, over control and abuse will be associated with stronger internalised masculine values in participants.

1C It is predicted that low levels of maternal indifference, over control and abuse will be associated with significant increases in femininity scores in participants.

Paternal and maternal parenting (indifference, over-control and abuse) made no significant contribution to gender role values for males or females in the sample (see table 20).

Table 20.

Canonical correlation analysis relating parenting variables on attachment and gender role formation.

Covariate Canonical Variables	Canonical Root for Sample	Canonical Root for Females	Canonical Root for Males
Father Abuse	.053	.058	.252
Father Indifference	-.787	-.899	-.479
Father Over Control	.043	-.014	-.280
Mother Abuse	.114	.104	.182
Mother Indifference	-.099	.064	-.810
Mother Over Control	-.471	-.408	-.070
Attachment Anxiety	-.867	-.945	-.338
Attachment Avoidance	-.111	-.051	-.690
Masculinity	-.034	-.148	.248
Femininity	-.025	-.063	-.094
Variance	39.3%	45.0%	46.1%
Accounted for Significance	61.75, $p < .001$	55.50, $p < .001$	Not Significant

8.3.4 Canonical analysis parenting and psychosocial health measures: Hypothesis

1D.

A separate canonical latent variable correlation was conducted using on parenting practice of mothers and fathers (Indifference, over-control and the experience of abuse) and dependent measures of health symptoms (depression, anxiety and stress) and emotional support networks (propensity to access emotional support and breath of support network) (see Table 21).

1D Both indifference and over control are expected to be associated with significant increases in symptoms of psychological distress.

Canonical correlation results for the sample indicated that one root was significant, Wilks's $[\lambda] = .696$, $\chi^2 = 105.536$, $p < .001$ and accounting for 47.7% of the total variance. The structure coefficients for the whole sample suggest that low father indifference (-.595) and to a lesser degree low mother over control (-.427) reduced symptoms of depression (-.497) and stress (-.429) for participants. No impact of parenting variables were found on measures of emotional support.

Further canonical analyses were conducted to on both males and females in the sample to highlight any differential results. Canonical correlation results for females in the sample indicated that two roots were significant, Wilks's $[\lambda] = .569$, $\chi^2 = 103.764$, $p < .001$ and accounting for 54.0% of the total variance and a second root, Wilks's $[\lambda] = .803$, $\chi^2 = 40.459$, $p < .01$ and accounting for 34.1% of the total variance (see table 21). Due to the less variance and lower significance of result the second root was not considered. Inspection of the first canonical root indicated a number of variables greater than +/- 0.3. For females in the study low father emotional indifference (-.650) and mother (-.424) and father (-.311) low reported parental over controlling behaviour strongly reduced female symptoms of depression (-.462) and stress (-.410) experienced in the previous two weeks whilst also reducing the breadth of their emotional support network (-.303).

Results for males in the sample indicated one significant root, Wilks's $[\lambda] = .581$, $\chi^2 = 52.628$, $p < .01$ and accounting for 49.3% of the total variance. The structure coefficients for males indicated a number of variables greater than +/- 0.3. For males in the study extremely low father emotional indifference (-.972) and

reported father over controlling behaviour (.339) combined with mother low controlling behaviour (-.426) reduced male symptoms of depression (-.378) and significantly reduced stress (-.825). These parenting behaviours also increased anxiety symptoms currently experienced (.419) and also increased males propensity to access emotional support networks (.502).

Table 21.

Canonical Correlation Analysis relating parenting variables on psychosocial health measures.

Covariate Canonical Variables	Canonical Root for Sample	Canonical Root for Females	Canonical Root for Males
Father Abuse	.050	.192	.123
Father Indifference	-.595	-.650	-.972
Father Over Control	-.165	-.311	.339
Mother Abuse	.094	.068	.029
Mother Indifference	-.227	-.106	-.051
Mother Over Control	-.427	-.424	-.426
Depression symptoms	-.497	-.462	-.378
Anxiety symptoms	-.139	-.209	.419
Stress symptoms	-.429	-.410	-.825
Propensity to access emotional support.	.094	-.044	.502
Breadth of emotional support network	-.117	-.303	.232
Variance Accounted for	47.7%	54.0%	49.3%
Significance	105.54, $p < .001$	103.76, $p < .001$	52.628, $p < .01$

8.4 Results impact of attachment and gender role on emotional support.

8.4.1 Canonical analysis attachment, gender role and symptoms of psychological health: Hypotheses 2A.

A series of canonical latent variable correlations were conducted using SPSS to reveal the relationship between variables in the study. The first analysis explored covariate canonical variables of attachment in romantic relationships (Anxiety and Avoidance) and gender role orientation (masculinity and Femininity) on measures of psychological health symptomology (depression, anxiety and stress) present at the time of survey.

Canonical correlation results indicated that two roots were significant for the total sample, Wilks's $[\lambda] = .641$, $\chi^2 = 134.880$, $p < .001$ and accounting for 55.1% of the total variance and Wilks's $[\lambda] = .920$, $\chi^2 = 25.409$, $p < .001$ and accounting for 28% of the total variance. Given the reduced variance accounted for by the second significant correlation the first correlation of variables was considered for further inspection. Statisticians recommend $\pm .3$ as the cut off for determining the variables that significantly contribute to the canonical variate (Tabachnick & Fidell, 2001; Thompson, 2000). Results indicated two negative loadings ($> .3$) for the canonical root which was characterized by a strong negative loading on attachment anxiety (-.659) and moderately strong negative loading on femininity (-.406) resulting in a moderate negative loading on depression (-.589) and anxiety symptoms (-.335). The profile of these structure coefficients suggest that low levels of attachment anxiety in romantic relationships and low identification with feminine values reduce symptoms of depression and anxiety for the combined male and female sample of the general community (see table 22). To uncover any differential

effects based on gender separate canonical correlations were conducted for both males and females in the sample.

2A Secure attachment represented by low levels of attachment anxiety and avoidance together with low adherence to masculine values will significantly reduce measures of depression, anxiety and stress in males in the sample.

Measures of psychological distress in women was found to be influenced by attachment security and low adherence to feminine values. Canonical correlation results for females indicated that two roots were significant, Wilks's $[\lambda] = .631$, $\chi^2 = 87.681$, $p < .001$ accounting for 56.5% of the total variance and Wilks's $[\lambda] = .929$, $\chi^2 = 14.120$, $p < .05$ and accounting for 26.6% of the total variance. Given the reduced variance accounted for by the second significant correlation and its reduced significance level the first correlation was considered for further inspection. The canonical root for females was characterized by an extremely strong negative loading on attachment anxiety (-.615) and moderately strong negative loading on femininity (-.488). These variables resulted in a moderate negative loading on depression (-.478) and stress symptoms (-.362). The profile of these structure coefficients differed slightly from the combined sample both in strength of loading and resulting symptomology experienced for women. The structure coefficients suggest that low levels of attachment anxiety in romantic relationships and low identification with feminine values are important factors in the presentation of psychological distress symptoms. When compared to the total sample strength of structure coefficients suggest that these factors significantly reduce depression and stress symptoms in women (see table 22).

Results of canonical correlation analysis indicated that one root was significant, Wilks's $[\lambda] = .615$, $\chi^2 = 50.545$, $p < .001$ and accounting for 56.7% of the total variance. The canonical root for the variables under consideration for males in the sample was characterized by a strong negative loading on attachment anxiety (-.657) and moderately strong negative loading on attachment avoidance (-.338) and positive loading on masculinity (.312) resulted in a very strong negative loading on depression (-.868) and strong negative loading on anxiety (-.499) with a positive loading on stress symptoms (.405). The profile of these structure coefficients for men differed significantly from both the combined sample and females both in both the loading and resulting symptomology experienced. The profile of structure coefficients suggest that for men low levels of attachment anxiety and avoidance in romantic relationships together with identification of masculine values had significant impact the presentation of psychological distress symptoms. For men low relationship anxiety and avoidance and masculine values resulted in decreased depression and anxiety though this had the effect of increased stress symptoms experienced in the previous two weeks (see table 22).

Table 22.

Canonical Correlation Analysis relating gender role orientation and attachment variables on symptoms of psychological distress.

Covariate canonical variables	Canonical Root for Sample	Canonical Root for Females	Canonical Root for Males
Attachment anxiety	-.659	-.615	-.657
Attachment avoidance	-.269	-.212	-.338
Masculinity	.030	-.051	.312
Femininity	-.406	-.488	-.180
Depression symptoms	-.589	-.478	-.868
Anxiety symptoms	-.335	-.246	-.499
Stress symptoms	-.159	-.362	.405
Variance accounted for	55.1	56.5	56.7
Significance	87.68, $p < .001$	87.68, $p < .001$	50.54, $p < .001$

8.4.2 Canonical analysis attachment, gender role and measures of emotional support: Hypotheses 2B.

A second analysis explored covariate canonical variables of attachment in romantic relationships (Anxiety and Avoidance) and gender role orientation (masculinity and Femininity) on measures of emotional support (propensity to access support and breadth of support network) (see Table 23). Canonical correlation results indicated that one root was significant, Wilks's $[\lambda] = .773$, $\chi^2 = 77.669$, $p < .001$ and accounting for 45.2% of the total variance. Inspection of the canonical root indicated a strong negative loading on attachment avoidance (-1.001) and very strong negative loading on propensity to access emotional support (-.994). The structure coefficients suggested that low attachment avoidance within a romantic relationship corresponded with a low propensity to access emotional support from others outside of the relationship though this strong propensity was not reflected in the breadth of emotional support network.

2B Insecure attachment (high levels of attachment anxiety and avoidance) and gender role orientation (femininity and masculinity) will differentially impact on male and female participant propensity to access emotional support and breadth of their emotional network.

To understand any gender differences in the effect of attachment in romantic relationships and gender role orientation on emotional support networks, separate canonical correlations were conducted on both males and females in the sample. Canonical correlation results for females indicated that one root was significant, Wilks's $[\lambda] = .720$, $\chi^2 = 62.228$, $p < .001$ accounting for 50.0% of the total variance. The canonical root had the same profile as the total sample suggesting

that for women low attachment avoidance (-1.080) in a romantic relationship corresponded with a low propensity to access emotional support (-.985) from others. Canonical correlation for men indicated that one root was significant, Wilks's $[\lambda] = .817$, $\chi^2 = 50.545$, $p < .01$ and accounting for 41.3% of the total variance. The canonical root for men differed dramatically to women's suggesting different mechanisms influence help seeking behaviour for men and women. Inspection of the canonical root indicated positive loadings on both attachment anxiety (.363) and avoidance (.548) with negative loading on masculine values (-.404) and feminine values (-.294) had a strong negative impact on men's propensity to access emotional support (-.904). The structure coefficients suggest that for men both high levels of attachment avoidance and anxiety within a romantic relationship together with weak identification of masculine values and feminine values corresponded significantly to reduced propensity to access emotional support from others.

Table 23.

Canonical Correlation Analysis relating parenting variables on attachment and gender role formation.

Covariate canonical variables	Canonical Root for sample	Canonical Root for Females	Canonical Root for Males
Attachment anxiety	.049	.230	.363
Attachment avoidance	-1.001	-1.080	.548
Masculinity	.138	.198	-.404
Femininity	.045	-.108	-.294
Breadth of Emotional Support Network	.016	.046	-.201
Propensity to Access Emotional Support	.994	-.985	-.904
Variance accounted for	45.2	50.0	41.3
Significance	77.669, $p < .001$	62.23, $p < .001$	50.54, $p < .01$

8.4.3 Analysis of emotional support access.

Pearson's bivariate correlations were used to explore relationships between romantic attachment measures and groups in individual's social ecology (see table 24). The use of correlations provided an indication of any relationship between participant's romantic attachment, gender role orientation and individual's identified as emotional supports by participants. Significant correlations were found between both attachment anxiety and avoidance for male and female participants (see table 24). A significant correlation for attachment measures and identification of women's romantic partner as a source of emotional support were found (anxiety $r(197) = -.236$ $p < .01$, and avoidance $r(197) = -.324$ $p < .001$). Women with low attachment anxiety and avoidance scores identified their romantic partners as emotional support when in need. Females with high attachment anxiety in romantic relationships were found to identify psychiatric services $r(197) = .168$ $p < .05$, and medical services $r(197) = -.195$ $p < .01$ for emotional support. A negative correlation between attachment avoidance and identification of their romantic partner as a source of support $r(110) = -.374$ $p < .001$, was found for males in the sample suggesting that males in the sample with low attachment avoidance identified their romantic partner as a source of emotional support. Results also indicated a negative correlation between males attachment anxiety in romantic relationships and identification medical services as a source of emotional support $r(110) = -.198$ $p < .05$. This finding suggests that low romantic attachment anxiety influences local medical services being identified as a source of emotional support for men.

Gender role orientation was also found to significantly influence the nature of emotional supports accessed though this influence was stronger for male

participants in the study. Significant positive correlations between male identification with masculine values with emotional supports including their romantic partner $r(110) = .249 p < .01$, and friendship networks $r(197) = .191 p < .05$. Stronger identification with masculine values in men also increased breadth of emotional support network $r(110) = .243 p < .05$. Stronger identification of masculine values significantly increased women identifying friends as a source for emotional support $r(197) = .177 p < .05$. Femininity was not found to significantly influence groupings identified to provide emotional support for either males or females in the sample.

Table 24.

Significant correlations between high and low measures of attachment and gender role orientation across emotional supports utilized.

Variables	Gender	1	2	3	4	5	6	7	8	9
Attachment Anxiety	Male					-.198*				
	Female	-.236**			.168*	.195**				
Attachment Avoidance	Male	-.374***								
	Female	-.324***								
Masculinity	Male	.249**		.191*						.243*
	Female			.177*						
Femininity	Male									
	Female									

*** Correlation significant at .001 level
 ** Correlation significant at .01 level.
 * Correlation significant at .05 level

Note: 1= Partner, 2= Family, 3= Friendship Network, 4= Psychiatric Services, 5= Medical Services, 6= Psychological Services, 7= General Community, 8= Other Person 9= Total Emotional Network Breadth

Correlations between both gender role orientation and attachment in romantic relationships on individual sources of emotional support for participants in the sample were explored through Pearson's bivariate correlations. Analysis indicated that both the strength of ones masculine and feminine values and romantic attachment (anxiety and avoidance) significantly influenced the people participants identified to provide them emotional support. Furthermore the influence of both gender role and attachment differed for males and females in the sample (see table 25).

For females in the sample attachment avoidance in romantic relationships was negatively correlated with both friends $r(197) = -.249$ $p < .05$ and family members being identified as an emotional support including mothers $r(197) = -.140$ $p < .05$ and fathers $r(197) = -.236$ $p < .01$. Conversely a positive correlation was found between attachment avoidance and identification of youth workers $r(197) = .158$, $p < .05$ and uncles $r(197) = .155$ $p < .05$ as emotional supports during times of emotional distress. Attachment anxiety in romantic relationships was also a significant correlated with a number of emotional supports identified by women. A negative correlations between women's attachment anxiety in romantic relationships and identifying a volunteer as an emotional support during a time of emotional distress $r(197) = -.147$ $p < .05$. A significant positive correlation was found between attachment and identification of a range of both family and community services as emotional supports including counsellors $r(197) = .161$ $p < .05$, youth workers $r(197) = .151$ $p < .05$, hospital staff $r(197) = .171$ $p < .05$, and sister or brother $r(197) = .146$ $p < .05$. These results suggests that romantic attachment measures impacted on the person or profession women identified as a source of emotional

support in their ecology. Increased attachment anxiety in women increased their identification of both professionals and family members as emotional support whilst decreased attachment avoidance correlated with family and friends being identified. With heightened attachment avoidance women indicated youth workers and uncles for emotional support. For males in the sample both attachment anxiety and avoidance in romantic relationships made less impact on emotional supports identified with only attachment avoidance in males negatively correlated with identifying their boss as an emotional support $r(110) = -.197 p < .05$.

The influence of gender role orientation in people identified as likely emotional supports was also explored. For females in the sample identification with masculine values positively correlated with the likelihood of identifying a workmate $r(197) = .155 p < .05$, a boss $r(197) = .155 p < .05$ and a second friend $r(197) = .203 p < .01$ as emotional supports. Feminine values was found to significantly correlate with increased female identification of psychiatrists as an emotional support $r(197) = .146 p < .05$. For males in the sample masculinity values significantly correlated with identifying a stranger as an emotional support $r(110) = .265 p < .001$ whilst increased feminine values correlated with local medical practitioners as preferred emotional supports $r(110) = .204 p < .05$. These results suggest that for females stronger masculine values results in the workplace being identified as a significant source of emotional support. For males increased identification of masculine values results in strangers being accessed for emotional support. For both males and females in the sample increased feminine values increases medical and psychiatric services being identified.

Table 25.

Pearson correlations between measures of attachment and gender role orientation across emotional supports utilized.

Variables	Masculinity		Femininity		Attachment Avoidance		Attachment Anxiety	
	Male	Female	Male	Female	Male	Female	Male	Female
Counsellor	.022	-.014	.169	.104	-.107	.056	-.073	.161*
Local doctor	-.116	-.028	.204*	.110	-.055	-.041	-.075	.026
Workmate	.040	.270***	-.018	-.056	-.144	-.060	-.100	-.066
Friend	.165	.085	-.022	-.092	-.038	-.147*	.043	-.114
Psychologist	-.154	-.035	.159	.055	.051	.009	.145	.108
Boss	.144	.155*	.002	-.069	-.197*	.042	-.075	.050
Mother	-.013	.083	.099	-.063	.026	-.140*	-.046	.003
Psychiatrist	-.054	-.050	.059	.146*	-.151	.024	-.117	.124
Father	-.010	.052	.108	-.023	-.126	-.236**	-.132	-.090
Aunty	.128	.029	-.015	-.103	-.074	-.063	.060	-.059
Youth worker	.152	-.002	-.034	.073	-.020	.158*	.041	.151*
Grandmother	.150	.040	-.014	.025	-.063	-.046	.012	-.057
Second friend	.181	.203**	.053	-.019	.032	-.121	-.022	-.009
Sister or brother	.158	.005	-.131	.017	-.128	.004	-.136	.146*
Second sister/ brother	.084	.085	.002	.051	-.162	.059	-.065	.037
Cousin	.262	.135	-.031	.028	-.038	.040	.088	.070
Grandfather	.036	.111	-.005	.063	.082	.088	.110	-.009
Social worker	.076	-.083	.006	-.042	-.062		-.023	.072
Neighbour	-.010	-.022	.015	-.079	.108	.049	-.016	-.068
Teacher	.031	-.032	-.027	.033	-.024	-.086	-.013	-.009
Priest	-.149	-.026	.116	.022	-.032	-.009	-.108	-.029
Volunteer	-.031	-.026	-.077	.068	.115	.107	.156	-.147*
Stranger	.265**	.028	.025	-.014	.171	.084	.155	.125
Nun	nil	.009	nil	.037	nil	.069	nil	-.015
Uncle	-.039	.024	-.023	-.012	.047	.155*	.137	-.133
Nurse	.015	-.002	.157	-.034	-.096	-.010	-.073	-.086
Telephone counsellor	.175	.077	-.013	-.062	-.076	-.044	.029	.031
Hospital staff	-.017	.000	.145	-.128	.033	.077	-.092	.171*
Other	.183	.049	.172	.038	-.165	.117	-.063	.123

*** Correlation significant at .001 level.

** Correlation significant at .01 level.

* Correlation significant at .05 level

8.5 Chapter summary

The current chapter gave a detailed overview of the results of analysis for the three studies. The chapter established that the random community sample

demographics for the study overall reflected profiles of the general Australian community based on previous epidemiological research (Chey, Bauman, Brooks & Silove, 2006; Henderson, Andrews & Hall, 2000; Molster & Daly, 2006) and census data (Australian Bureau of Statistics, 2007). Research results detailed in the chapter indicated that the ECR-R (Fraley, Waller & Brennan, 2000) is a robust two factor instrument measuring romantic attachment anxiety and avoidance, with convergent validity and suitable for use in the general community. Results for the second study indicated the important influence of parental indifference on the development of romantic attachment and measures of psychosocial health. Fathers parenting behaviour and specifically their indifference were found to have a significant yet differential impact on how males and females view their romantic relationships. Finally, the last study explored the impact of both gender role orientation and attachment in romantic relationships on psychological symptoms and the nature of emotional support individuals access in their ecology. The results indicated that attachment anxiety in romantic relationships had a greater impact on psychological health and access to emotional supports than gender role orientation. Furthermore, stronger masculine orientation in men had a strong positive psychosocial outcome whilst increase identification with feminine values had the reverse influence for women. The findings will be explored in depth in the following chapter.

CHAPTER NINE

DISCUSSION

Chapter Summary

‘Both the nature of the representational models a person builds of his attachment figures and also the form in which his attachment behaviour becomes organised are regarded as being the results of learned experiences that start during the first year of life and are repeated almost daily throughout childhood and adolescence.’ (Bowlby, 1980. p. 55).

The following chapter involves the integration of the literature reviewed in previous chapters with the findings of the studies presented in the results section. A number of limitations to the research findings will be presented in the chapter and discussed in the context of current literature. An integrated discussion will then outline poignant themes highlighted in the integrated literature review and results of the study, presenting directions for future research.

The current study had three aims

1. To establish the validity of the ECR-R as a measure of romantic attachment through establishing community norms, convergent validity, criterion validity and both confirmatory and exploratory factor analysis.
2. Investigate the impact of adverse parenting variables on the formation of romantic attachment and gender role orientation.
3. Investigate the relative impact of both romantic attachment and gender role orientation on the nature and propensity to access emotional support.

Analysis of the data generally indicated results in line with expected findings. The first of these findings established robust psychometric properties for the ECR-R (Fraley et al., 2000) indicating that the measure has both a two-factor structure and convergent validity.

The second group of findings explored the impact of recalled maternal and paternal parenting practice on measure of romantic attachment and gender role orientation. Results indicated that low father indifference, mother over control strongly predicted low attachment anxiety in romantic relationships for women. Interestingly, no significant relationship between parenting variables and attachment and gender role outcome variables was found for men in the community sample.

Although recalled parenting practice had a significant impact on the nature of interpersonal relationships for women these parenting variables significantly impacted on the mental health of both males and female participants. The results indicated that differing combinations of reported paternal parenting practice combined with low maternal control impacted in a differential way on male and female mental health symptoms and access to emotional support.

Finally the study explored the interaction of attachment and gender role orientation as measures of interpersonal functioning and their impact on measures of mental health, access to emotional support and the nature of support accessed when in need. The results indicated that both measures of attachment (anxiety and avoidance) evidenced in romantic relationships and gender role orientation impacted significantly on males and females, although differentially. Decreased attachment anxiety within a romantic relationship significantly reduced propensity to access

emotional support for women whilst a more complex interaction of attachment and gender role variables reduced propensity to access emotional support for men.

The nature of emotional supports accessed by men and women differed significantly influenced by both attachment and gender role variables. The following chapter discusses these results first exploring in greater depth the outcomes of analysis to establish the norms for the ECR-R (Fraley et al., 2000).

A more full exploration of the relationship between aspects of parenting, romantic attachment, gender role orientation, measures of psychological health and emotional support with the results discussed in relation to their impact on mental health services is conducted. Finally the limitations of the study are discussed and directions for future research outlined.

9.1 Aim 1: Psychometric properties of the ECR-R

In developing the ECR-R Fraley et al., (2000) endeavoured to create a measure of romantic attachment that had increased measurement precision and strengthened psychometric properties. Subsequent research has confirmed the initial findings supporting the two factor structure and strong internal reliability of the measure.

This study aimed at providing further psychometric data on the ECR-R derived from a general population sample, principally exploring the factor structure, internal consistency and convergent validity of the measure. Results from this study confirmed many of the reported psychometric properties of the measure and adds to

the growing evidence of the ECR-R as a robust and reliable measure of romantic attachment.

Results from both exploratory and confirmatory factor analysis indicated that the ECR-R has a two factor structure supporting previous research derived from student populations (Fraley et al., 2000; Sibley, et al., 2005; Sibley & Liu, 2004) with measures of anxiety and avoidance being moderately correlated (Sibley et al., 2005; Tsagarakis, et al., 2007). Confirmatory factor analysis confirmed a two factor structure with a majority of fit indices supporting a good fit between the data and a two factor solution though the RMSEA and NNFI indices did not achieve desired fit cut off limits.

The study highlighted some weakness in a number of items which either loaded poorly, shared loading or failed to load on expected factors whilst the both scales indicated sound internal consistency. A comparison to previous research findings suggest that a number of items appear weak across samples of student populations. Within the anxiety subscale the item ‘sometimes romantic partners change their feelings about me for no apparent reason’ loaded poorly on anxiety whilst the avoidance item ‘I find it difficult to allow myself to depend on romantic partners’ loaded on both underlying factors and evidenced in previous research (Sibley & Liu, 2004).

The identified anxiety items appear not to address anxiety directly whilst the avoidance item doesn’t adequately address avoidance behaviour or beliefs whilst a number of items either poorly loaded on the either factor or loaded contrary to expectations (see table 26). The anxiety subscale would be strengthened with the

exclusion of 'I rarely worry about my partner leaving me' and 'I do not often worry about being abandoned' which would increase the Chronbach Alpha for the subscale to over .91.

Table 26.

ECR-R factor loadings (Attachment Anxiety and Avoidance) for the 7 weakest items from the current study across results from previous research.

Item	Current Results		Sibley & Liu (2004)		Fairchild & Finney (2006)		Sibley et al. (2005)	
	Anx	Avoid	Anx	Avoid	Anx	Avoid	Anx	Avoid
Anxiety Items								
My desire to be close sometimes scares people away	.616	.000	.681	.050	.480	.000	.630	.000
It makes me mad that I don't get the affection and support needed from my partner	.584	.000	.737	.030	.490	.000	.600	.000
My romantic partner makes me doubt myself	.567	-.166	.758	.130	.520	.000	.560	.000
My partner only seems to notice me when I am angry	.473	-.241	.463	-.136	.460	.000	.490	.000
Sometimes romantic partners change their feelings about me for no apparent reasons	.354	-.238	.247	.247	.530	.000	.500	.000
I rarely worry about my partner leaving me	.000	-.297	.673	.255	.630	.000	.570	.000
I do not often worry about being abandoned	.000	-.187	.617	.257	.650	.000	.520	.000
Avoidance Scale								
My partner really understands me and my needs	.000	-.639	.290	.236	.000	.670	.000	.490
I prefer not to be too close to romantic partners	.254	-.423	.097	.608	.000	.660	.000	.770
I don't feel comfortable opening up to romantic partners	.263	-.408	.041	.829	.000	.670	.000	.660
I prefer not to show my partner how I feel deep down	.000	-.337	-.100	.813	.000	.490	.000	.750
I find it difficult to allow myself to depend on romantic partners	.385	-.336	.385	.443	.000	.570	.000	.540
I am nervous when partners get too close to me	.480	-.270	.163	.823	.000	.660	.000	.700
I get uncomfortable when a romantic partner wants to be very close	.434	-.241	-.161	.736	.000	.620	.000	.730

Note: Items with poor factor loadings or shared loading highlighted.

A number of psychosocial health measures indicated the convergent validity of the ECR-R. Research has highlighted the link between measures of poor attachment and depression and anxiety. The results of the current study provide further evidence of the convergent validity of the ECR-R. Higher levels of attachment anxiety were found to be related to increased symptoms of anxiety, whilst both increased measures of attachment avoidance and anxiety correlated with increased symptoms of depression. Current levels of stress were found to be correlated with only measures of attachment anxiety and not attachment avoidance. Finally, measures of attachment anxiety and avoidance were found to be related to both the propensity to access emotional supports when in need and the breadth of the emotional support network.

9.2 Aim 2: the impact of adverse parenting variables on the formation of romantic attachment and gender role orientation.

9.2.1 Gender differences in key measures used.

Results found that females in the sample held stronger negative appraisals of their mother's parenting practice than men in their perceptions of their mother's emotional indifference, over control and abuse. This is consistent with results from research into the development of the MOPS (Parker, et al., 1997b). This result also provides support to previous research that has found gender differences in appraisals of parenting with females more sensitive to perceived rejection of parents and more likely to perceive their mothers as indifferent, over controlling and abusive (Ehnvall et al., 2007) and adolescent evaluations of parents with males more idealizing and females more blaming of parents (Adam, Sheldon-Keller & West, 1996).

Gender differences were also found in male and female orientations to masculine and feminine values with males tending toward stronger masculine values that emphasize beliefs of dominance, independence and confidence. Females in the sample tended to identify with stronger feminine values of apprehension, dependence and emotional connection. These findings are consistent with previous research exploring gender role orientation (Milovchevich et al., 2001).

9.2.2 Parenting practice effects on attachment formation.

A further intension of the study was to explore the differential impact of maternal and paternal parenting practice on the nature of romantic relationships, gender role values and current symptoms of psychological distress.

Hypothesis 1A

Independent variables of parental over control and indifference are expected to significantly increase both attachment anxiety and avoidance.

Overall the study found that recollections of parenting practice had a significant impact on participant beliefs and behaviour in romantic relationships for women in the sample. It had lingering associations with mental symptoms experienced in the previous two weeks for both men and women. A significant finding was the importance of paternal indifference and maternal over control in shaping both expectations of interpersonal relationships but also in the current psychosocial health of participants though these outcomes were different for both men and women.

Women in the sample who appraised their fathers as low in indifference and their mothers as low in over controlling behaviour experienced significantly reduced anxiety, worry and fear concerning availability of their romantic partner. The significant result accounted for 45% of the variance highlighting the strong enduring impact of both fathers and mothers in shaping the nature of romantic relationships of their daughters.

The significantly lower report of fathers as rejecting, disinterested and lacking care together with significantly lower reports of mothers who were over protective, controlling, critical and guilt-promoting possibly had the outcome of significantly lower anxiety for women concerning the availability of their romantic partner. This parenting experience created enduring positive expectations and beliefs for women that their romantic partner was available, trustworthy and engendered a sense of security in the relationship.

It can be argued that the absence of paternal indifference was possibly internalised into positive expectations concerning the acceptance, care and availability of women's male romantic partner. In this case, positive experiences between the female child and her father are internalised into expectations that her romantic partner as accepting, and is able to provide care when in need. Low levels of paternal indifference are possibly internalised to form secure attachment qualities that are in turn transferred to expectations of romantic partners and the security of this relationship. This security reduces measures of attachment anxiety in romantic relationships for women.

It is interesting to note the relative factor strength of reported paternal indifference, which suggests the importance of fathers in the family system as a significant influence in reducing attachment anxiety in subsequent romantic relationships for women. The important function of paternal indifference was combined with lower recollections of maternal over control. This suggests that lower reports of mothers who were over protective, controlling, critical and guilt-promoting added significantly to women experiencing reduced anxiety concerning their partners and their romantic relationship. Within these two parenting variables, one paternal one maternal, are strong themes that parallel concepts of healthy sense of self as worthy of care and affection and the other as able to provide this care as suggested in the literature (Bowlby, 1985; Bretherton & Munholland, 1999).

The absence of maternal over control is possibly internalised in women as a strong sense of self worth and as a person worthy of this care. This is supported by research suggesting the link between parenting practice characterised by over-control, promoting guilt and criticism and poor self-concept and internalising behaviour (Barber & Harmon, 2002). Conversely low levels of recalled paternal indifference characterised by rejection, disinterest and lack of care creates expectations that a person in the ecology is available, accepting and able to provide care. It can be argued that this security that the 'other' is available is internalised in women out of repeated interpersonal experiences between the father and daughter which is then transferred to expectations of women's romantic partners as measured in significantly reduced levels of attachment anxiety.

Although there was a significant relationship between parenting variables and attachment outcome variables for women this was not found for men in the

sample. Contrary to expected results canonical analysis failed to identify a significant root between the variables of parental indifference control and abuse. This result suggested that recalled parenting experiences of indifference, over control and abuse were not significant variables influencing the development of romantic attachment or gender role orientation for males participating in the study. Though these variables were significant for women, the results suggests that other parenting factors influence men's development of an internalised model of interpersonal relationship. This difference in results could be an artefact of male positive bias in the recall of childhood parenting experiences when compared to more negative appraisals by women, which may have obscured the relationship between parenting variables and measures of romantic attachment and gender role.

9.2.3 The absence of parenting effects on gender role formation

Previous research indicated strong correlations between internalised schemas of attachment and internalised values of appropriate gender role behaviour (Collins & Read, 1990; Shaver, et al., 1996; Schwartz et al., 2004). Given the correlation of both models influencing the nature of interpersonal relationships it was hypothesised that similar aspects of parenting may be influential in the internalisation of these interpersonal values.

Hypothesis 1B

It is expected that paternal indifference, over control and abuse will be associated with stronger internalised masculine values in participants.

Hypothesis 1C

It is predicted that low levels of maternal indifference, over control and abuse will be associated with significant increases in femininity scores in participants.

The study found that neither maternal or paternal parenting variables influenced the development of gender values for males or females in the sample. This suggests that other factors in the family system or factors in the broader social ecology are influential in the internalisation of gender role values. These microsystems including peers, social networks/groups, educational institutions, the workplace, local communities together with the family promote a range of gender role options that are often in conflict (Ashmore, 1990; Connell & Messerschmidt, 2005). Although the parenting values in this study were found not to influence the development of gender roles orientation the family is still understood to be a primary source of these values (Bem, 1984; Gergen, 1985).

9.2.4 Parenting practice and enduring psychosocial health

The impact of parenting experiences on psychosocial health has a rich body of literature and clearly indicates that negative impact of poor parenting practice (Fergusson & Lynskey, 1997; Macoby, 2001; Morimoto & Sharma, 2004).

Hypothesis 1D

Both maternal and paternal indifference and over control are expected to be associated with significant increases in symptoms of psychological distress.

The study found evidence supporting previous literature where recalled parenting experiences were found to have an enduring impact on psychosocial health for both males and females in the sample. Canonical analysis revealed that

recalled past parenting practice had a strong impact on outcome variables measuring psychosocial health for both male and female participants in the previous two weeks. The strength of the relationship between parenting variables and psychosocial outcome variables was evidenced in the high significance of the results and in the high proportion of variance that was accounted by the variables (females 54% and male 49%). These results again highlighted the importance of both perceived father indifference and mother over control as significant factors for both males and females in the sample. Strong pattern differences based on the gender of the parent and of the participant were also clearly highlighted, suggesting that differing parenting practice by fathers toward their male and female children had differing positive psychosocial outcomes.

Low perceptions of father indifference combined with low perceptions of mother over control were the strongest drivers for decreasing levels of depression and stress symptomology for women participating in the study, which supports previous research (Ehnvall, et al., 2008; Parker, et al., 1999). Although weaker, and not attaining strength levels to be considered significant, this trend was likewise evidenced for anxiety symptoms. These parenting factors also had the impact of reducing the breadth of emotional supports reflected in the reduced number of people identified as sources of emotional support.

It is interesting to note that these parenting factors were likewise implicated in reducing attachment anxiety in romantic partners as previously discussed and suggests that this configuration of low perceptions of paternal indifference and maternal over control is a significant influence in both women's psychological health and security in women's romantic partners.

A notable addition to the previous analysis was the importance of paternal over control characterised by low perceptions of over protection, control, criticism and the promotion of guilt. These results suggest that for women perceptions of low paternal indifference and low perceptions of over control from both parents are significant parenting factors reducing the presentation of psychological distress in the previous two weeks. Weak perceptions that fathers were generally uncaring, disinterested and rejecting and likewise weak perceptions of both parents as controlling, over protective, critical and guilt promoting provided indications of a family system where positive expectations regarding the availability, love and security of significant others are present and an environment that promoted independence and sensitivity to the child's needs (Barber, 2002; Doyle & Markiewicz, 2005).

This trend for women in the sample was also extended to psychological health measures and propensity to access emotional supports in the community. The findings support prior research that likewise identified both maternal and paternal indifference as significant predictors of suicidal behaviour in women (Ehnvall et al., 2008) and generally support the concept of 'affectionless control' (Parker, 1983).

Although previous analysis found that male recollections of negative parenting practice had no significant influence on internalised models of interpersonal relationships (romantic attachment and gender role orientation) this was not true for measures of psychosocial health.

For males in the sample, recollections of maternal and paternal parenting were found to be significant factors in influencing outcome variables measuring psychosocial symptoms in the previous two weeks. Furthermore, parenting variables identified in males differed to women from the sample in both their expression and in their impact on psychosocial outcome variables. As with women in the sample, canonical analysis highlighted the significant role of paternal indifference and both paternal and maternal over control in affecting men's psychosocial health accounting for over 49% of variance.

In a similar way to women in the sample, low levels of paternal disinterest, lack of care and rejection combined with low maternal over control (over protection/control guilt and criticism) had a significant impact in reducing depression and stress symptoms in men. A significant gender difference was the positive impact of paternal over control on psychosocial health measures for males in the sample. Results suggest that male participant who recalled their fathers parenting as over controlling whilst not indifferent had enduring positive psychosocial outcomes when combine with low maternal over control.

Decreased risk of externalising disorders in males have been found as a consequence of increased paternal overprotection and authoritarianism suggesting that fathers' 'strict' parenting practice (boundaries and control) has a positive outcome for males (Enns, et al., 2002). It is possible that the presence of both low maternal over control and high levels of paternal over control combined with low paternal indifference set an optimal family environment with a mix of emotional responsiveness and demandingness for males (Maccoby & Martin 1983).

In recent years, community programs have been developed aimed at increasing the capacity and skills of families to more effectively fulfill parenting roles (see Henggeler, et al., 1998; Sanders, 2008). Often these programs focus on parenting strategies that specifically enhance parental skills in developing clear consistent behavioral expectations, rewards and consequences for children's behaviour and increasing emotional warmth between family members and increasing the quality of interpersonal relationships.

Research suggests that mothers tend to fulfill a significant proportion of parenting responsibilities often as a consequence of gendered ideologies concerning males and females parenting roles (Coltrane, 1996; Wood & Repetti, 2004). The findings in this research provide evidence of the important role of both fathers and mother in developing adaptive adult romantic relationships especially for women. From a systemic perspective, recollections of both low father indifference and low over control by mothers suggest an interaction of parenting practice increases attachment security in romantic relationships for women whilst also reducing symptoms of psychological ill-health for both men and women.

With the significant impact of recalled active paternal emotional engagement on women's current security in romantic relationships and the psychological health of both males and females implied in these results, increasing paternal engagement is a challenge for parenting programs. This challenge is emphasized in a parenting program operated by a government department in the region from which the sample for this study was drawn. The Intensive Supervision Program (ISP) applies evidence-based treatment to highly distressed families with adolescents identified as young offenders using Multi Systemic Therapy (MST: Henggeler, et al., 1998).

Initial results indicate treatment efficacy in reducing juvenile offending (Department of Corrective Services, 2006) with the majority of treatment working with mothers in the family system.

Given the importance of low father indifference in reducing attachment anxiety in relationships and in positive mental health outcomes greater emphasis needs to be placed on increasing parental engagement in systemic interventions aimed at increasing parenting capacity.

Studies have indicated a variety of factors that increase father involvement in parenting such as increased adverse life events for the mother, the presence of a male child, and as children aged (Wood & Repetti, 2004). An ongoing challenge is to develop clinical strategies to increase paternal involvement in parenting especially in family systems where strong parenting values exist defining parenting responsibilities in line with masculine gender values (Coltrane, 1996).

9.2.5 The absence of abuse as a significant factor

The study results also presents interesting outcomes as to the significance of abuse in both attachment, played out in romantic relationships and in the internalization of gender-based values. Canonical analysis indicated no significant influence of abuse in romantic attachment or in gender role orientation. These results appear contrary to previous findings that implicate psychological abuse in the presentation of psychological distress in adults (Fergusson & Lynskey, 1997) and likewise physical abuse (Al-Modallal, Peden & Anderson, 2008).

9.3 Aim 3: The impact of both romantic attachment and gender role orientation on the nature and propensity to access emotional support.

The study also aimed at exploring the interaction of both romantic attachment and gender role values on current symptoms of psychological distress and the nature of emotional support accessed by participants. In particular, the study focused on the interaction of attachment-related behaviour operating within the context of a romantic relationship and its interplay with societal values that direct appropriate gender-based behaviour. Of particular interest was the convergence of these values and behaviours on both access to possible emotional supports offered in the community and with symptoms of psychological distress experienced in the previous two weeks.

Hypothesis 2A

Secure attachment represented by low levels of attachment anxiety and avoidance together with low adherence to masculine values will significantly reduce measures of depression, anxiety and stress in males in the sample.

Overall the study found a differential relationship between romantic attachment and gender role orientation on their impact on symptoms of emotional distress and the nature of support accessed based on the gender of the participant. Results from canonical analysis found differing characteristics operate in the interplay of romantic attachment and gender role for men and women and their experience of psychological distress. Though the both romantic attachment and gender role appear to have a strong impact on psychological symptoms for both men and women, with over 56% of variance was accounted for both genders, there are some clear pattern differences based on the gender of participant in the study.

Significant differences based on participant's gender were found in the interplay of romantic attachment and gender role orientation and their impact on psychosocial outcome measures.

The results suggest that women evidencing low attachment anxiety concerning their romantic relationships and weaker adherence to traditional feminine values of strong emotionality and emotional orientation to others experienced generally reduced symptoms of depression anxiety and stress. From a constructivist perspective women's gender role is orientated toward communion, nurture and interpersonal connection due to dominant values promoted in social discourse and media portrayal (Gergen, 1985; Hofstede, 1998). The constant pressure to conform to unrealistic stereotypes of women portrayed in the media has been found to contribute to body dissatisfaction, low self esteem (Forbes et al., 2001), eating disorders and depression in women (Tiggemann, & Kuring, 2004). The results of this study suggest that low adherence to these values has significantly reduced symptoms of psychological ill health.

For men in the sample, secure romantic attachment (low attachment anxiety and avoidance) combined with stronger masculine values which promote self-reliance and independence, reduced both depression and anxiety symptoms. This configuration of attachment security in one's partner and masculine values also significantly increased symptoms of stress. These results would suggest that men's security in their romantic relationship combined with confidence in one's self and one's abilities in the social domain, evidenced in masculine values, reduce symptoms of depression and anxiety. Although the exact causes of stress were not explored in the study, the heightened stress may be an outcome of masculine values

that emphasise economic success through work/business, competitive individualism and independence (Connell & Messerschmidt, 2005).

Together these results suggest that for both men women, romantic attachment and gender role orientation interplay significantly affecting psychological health though the effect differs based on gender and strength of adherence to culturally determined proscriptions of gender-based behaviour.

9.3.1 The impact of romantic attachment and gender role on emotional support

A further aim of the study was to explore the inter-relationship of romantic attachment and gender role orientation on the nature and propensity to access emotional support in the broader social ecology.

Hypothesis 2B

Insecure attachment (high levels of attachment anxiety and avoidance) and gender role orientation (femininity and masculinity) will differentially impact on male and female participant propensity to access emotional support and breadth of their emotional network.

Separate canonical analysis again suggested differential pattern profiles based on gender with these variable profiles accounting for 50% of variance for women and over 41% for men. For females in the study, low attachment avoidance in romantic relationships was significantly related to reduced propensity to access emotional supports outside of the relationship. This suggested that women had reduced motivation to access emotional support from their broader social ecology when they felt comfortable in discussing their emotional needs with their partner.

In contrast, reduced propensity to access emotional support for men in the sample was influenced by a complex interaction of both romantic attachment factors and gender role values suggesting a differing mechanism operated for males in accessing emotional support in their broader social ecology.

An interplay of insecure romantic attachment (heightened anxiety and avoidance) together with reduced identification with both masculine and feminine values significantly reduced men's propensity to access emotional support outside of the relationship. Previous research has implicated insecure attachment evidenced by heightened anxiety and avoidance with reduced access to emotional support in relationships (Feeney, et al., 2000; Sprecher & Hendrick 2004). These studies suggest that insecure attachment characterised by poor sense of self as worthy of support and care together with attitudes that others are unable or unavailable to provide care and support reduce an individual's help-seeking behaviour.

Insecure romantic attachment was further complicated by weak identification with either masculine or feminine gender values for men participating in the study. Men were less likely to both request and accept emotional support from their partners due to attachment avoidance while also having reduced protective qualities of emotional communion embodied in feminine values and personal strength and social competence embodied by masculine values. Previous research has identified that men receive greater levels of support from their partners than women (Coventry, et al., 2003). Previous research has also highlighted the impact of strong masculine values in reducing emotional intimacy and satisfaction in romantic relationships (Burn & Ward, 2005; Wade & Donis, 2007) whilst strong feminine

values have been found to increase intimacy and satisfaction (Langis, et al., 1994; Stiener-Pappalardo & Gurung, 2002).

The convergence of both insecure attachment within romantic relationships and low identification with both feminine and masculine values impacting on low propensity to access support in the broader social ecology places men at significant risk of silent suffering where emotional support is reduced in both the private and broader social parts of men's ecology. Indeed this was borne out in the nature of emotional supports accessed by participants in the study with attachment security and gender role differentially impacting on sources of emotional support identified by men and women.

Secure romantic attachment in women (low levels of attachment anxiety and avoidance) and reduced attachment avoidance in men increased participant likelihood of identifying their partner as a source of emotional support, supporting previous research linking attachment security and access to emotional support within relationships (Mikulincer & Nachshon, 1991; Sprecher & Hendrick, 2004).

Interestingly, attachment anxiety in romantic relationships had a differential impact on men and women in the sample with women experiencing high attachment anxiety more likely to identify psychiatric and medical services as a source of emotional support whilst the reverse was true for men. Men who were less fearful and insecure of their partner's affection were likewise more likely to identify local medical services as a source of emotional support. This suggests that low attachment avoidance in romantic relationships for men translated into lower avoidance in accessing emotional support from general practitioners. As previous research has

indicated general practitioners are often the point of first contact to address psychological distress (Hillman et al., 2000).

Furthermore, for both men and women increased identification with masculine values increased the likelihood of participants identifying broader friendship circles as a source of emotional support.

9.3.2 The impact of romantic attachment and gender role on emotional support in accessing specific supports in one ecology

The inspection of specific emotional supports accessed by men and women also found that people identified differed as a function of gender with both attachment and gender role orientation shaping the nature of emotional support accessed. It must be noted that caution needs to be applied to these results due to the increased probability of Type I errors as a consequence of the large number of tests and correlations used. This makes the results and conclusions more speculative. Although the results are cautious in the trends they point toward there are interesting differences in both men and women's social support networks as a function of both attachment and gender role orientation.

For women insecure attachment (both attachment avoidance and anxiety in romantic relationships) correlated with identification of a youth worker as an emotional support accessed in times of distress. Youth workers are often employed in community settings providing support and referral services to young people often disenfranchised from mainstream services. The young person is often identified as the primary client and provided with a safe environment in which to discuss issues. The identification of a youth worker in a general population sample with a broad

age base attests to the enduring significance of this adolescent helping relationship for adults.

Higher attachment anxiety was also a significant factor in identifying counsellors, sister/brother and hospital staff as an emotional support whilst higher attachment avoidance was correlated with the identification of one's uncle. Increased relational security evidenced by low attachment avoidance in women's romantic relationships resulted in a greater likelihood of accessing intimate family members such as mother and father and friends. This suggests that for women attachment security in one's romantic relationship was generally extended to women's broader emotional ecology where family and friends were identified as emotional supports in times of need. With increased attachment anxiety professional services in the community were identified. Interestingly few correlations were uncovered between attachment in romantic relationships and people identified as emotional supports for men in the sample. Males with lower attachment avoidance were more likely to identify a workplace boss as an emotional support.

Gender role orientation had a strong influence in determining the nature of emotional supports identified by men and women in the sample. Stronger masculine values impacted on women in the sample with the workplace identified as a significant forum to access emotional support. Women who held stronger masculine values identified workmates and bosses as significant emotional supports whilst also identifying a second friend. These results imply that for women, stronger masculine values with a general emphasis on the social domain, is reflected in the access of emotional support from sources in the individual's ecology broader than family and close friends.

Stronger masculine values for men had a different impact with men identifying individuals totally outside their relational ecology as an emotional support. Men who identified with stronger masculine values increased the likelihood of identifying a stranger as significant source of emotional support. For men strong masculine values drew them toward individuals who were strangers and without any relational context or indeed any emotional connection to them. These findings support previous literature on the impact of strong masculine values on men's restricted access to emotional support from intimate others in their ecology (Addis & Mahalik, 2003).

Interestingly, for both men and women, stronger identification of feminine values increased the likelihood of identifying medical and psychiatric services as a source of emotional support. A strong affective tone is evidenced in many of the items measuring femininity in the scale used in the study implying heightened anxiety, nervousness and emotional connection. The identification of medical services as a source of emotional support may be seen as a first port of call to attend to emotional distress and indeed is supported in literature which identifies the general practitioner as an important frontline source of emotional support (Hillman, et al., 2000).

The results of the study indicate that attachment within romantic relationships and gender role values interact to affect not only the experience of psychological distress but also the nature of emotional supports accessed by individuals. The results also suggest that the profile of these interactions differ for men and women. In general it appears that secure attachment in one's romantic

relationship for both men and women decreases psychological distress whilst increasing identification of partners as sources of emotional support with this extending to family and friends in broader social ecology. This supports attachment literature identifying both the positive mental health consequences and positive impact on romantic relationships of secure attachment (Hollist & Miller 2005; Klohnen & Bera, 1998; Riggs et al., 2007).

The impact of gender values appeared to influence both men and women, although this relationship was stronger for men and presented a mixture of both protective and increased risk components. Whilst increased identification of masculine values in men contributed to reduced symptoms of psychological distress and identification of friendship networks as sources of emotional support, lower identification increased propensity to access this support. For women lower identification with feminine values had a positive impact on lowering symptoms of psychological distress.

9.4 Limitations to the study

The results of these studies and recommendations need to be viewed in the context of a number of limitations both in the research design and in the measures used.

9.4.1 The limit of cross sectional research designs

The current research analysed data from a random community sample of the general population through use of a multistage cluster sampling technique (de Vaus, 1995). As such the methodology used a cross sectional design which limited the ability of the researcher to infer causation between the variables considered in the

series of studies and only the strength of correlations. The analysis of variable correlations is limited due to the inability to identify the direction of relationships between variables. One example is the correlation between parenting experiences and depression where depressive symptoms could be perceived as either an outcome of previous parenting experiences or as a significant influence to forming negative appraisals of parenting.

9.4.2 The use of retrospective measures

The results of this series of studies is further limited by the use of retrospective measures of parenting which introduces the possibility of recall bias. As mentioned a bias could potentially exist due to interactions of depressive symptomology and negative appraisals of childhood parenting experiences.

In a review of literature exploring recall bias Brewin, Andrews and Gotlieb (1993) found little evidence for distortions in recollections of negative experiences from childhood effecting measurements of psychosocial pathology. In a more recent study Duggan et al. (1998) found that participant recollections of parenting experiences were not significantly influenced by a past history of depression.

A further limitation related to recall bias was the use of self-report inventories to measure attachment. The use of the Experiences in Close Relationships Revised (ECR-R; Fraley, et al., 2000) measured convenient surface indicators of attachment that are cognitively available to the participant (Shaver & Mikulincer, 2002). Observation of the attachment relationship (Ainsworth et al., 1978) or the use of discourse analysis through the Adult Attachment Interview (Main & Solomon, 1986; Crittenden, 2006) appraise unconscious attachment

behaviour or processing of information often with limited conscious appraisal (Crittenden, 2006). Though recall bias has been suggested as an outcome of insecure attachment (Crittenden, 2006) the use of the ECR-R has been found to better predict psychosocial functioning than the AAI (Riggs, et al., 2007) and as the results suggest has robust psychometric properties.

9.4.3 Recall of parenting biased by maturation

Another possible limitation is that recollections of parenting experiences are modified with maturity, experiences and age either in more negative or positive appraisals of previous experiences. This is especially true in considering a sample drawn randomly from the general community with a distribution of age cohorts. Measures of parenting recollections of maternal and paternal care and overprotection using the Parental Bonding Instrument (Parker, et al., 1979) have been generally found to be stable over a 20-year period with no gender differences in recollections, maturation, experiences of depression or life events (Wilhelm, et al., 2005).

Paternal overprotection scores were found to differ at periodic measurement times with participant recollections of paternal overprotection decreasing at 10-year follow up and increasing at 20-year follow up. Wilhelm and colleagues found that these changes corresponded with 80% of the sample becoming a parent and having teenage children at 20-year follow up measurement.

The accuracy of abuse recollection has also been questioned. Kendler, et al., (2000) suggested that research findings often underestimate the true relationship between previous adverse childhood events and psychosocial health outcomes due

to participants having difficulty in accurate recall of events. Researchers have also found that recollections of abuse and neglect are generally stable over time particularly in non-clinical samples (Hardt & Rutter, 2004).

9.4.4 Multi source informants of parenting experiences

The study is also limited by the fact that only one perspective was assessed in assessment of recalled parenting experiences. Research has indicated that measures of parenting practice and family functioning differ depending on the source of appraisals. Adolescent reports of parenting have been found to be stronger predictors of outcome measures than parental reports possibly reflecting parent idealization of their parenting or reluctance to highlight perceived less desirable practice to researchers (Heaven et al., 2004; Sessa, Avenevoli, Steinberg & Morris, 2001; Shaw & Scott, 1991). Adolescents have been found to differ to their parents in their appraisals of their families in particular rating paternal commitment to the family, ability to resolve family conflict and time spent with families as lower than that of fathers reports (Greeff & Roux, 1999).

Research has used multi-informant and multi-modal methodologies to provide more accurate and representative data on parenting practice. Researchers have obtained not only the perspectives of parents but have also included children and important informants involved in the child's ecology such as teachers and peers (Henggeler, et al., 1998). Researchers have also used data from wider information sources such as offending, health and education records to gain a broader ecological picture of child health and behaviour. These broader multi-informant methodologies have also been integrated with multi modal assessment of parenting including self-

report questionnaires and direct observation across ecological settings (Henggeler, et al., 1998).

9.4.5 Non-response characteristics.

The characteristics and nature of the people who declined to participate in the studies have particular relevance in considering the interrelationship of attachment, gender role and help-seeking behaviour. As a population survey of randomly selected households was utilized no information on non-responders was available. It is possible that a selection bias may have distorted research findings as a consequence of non-participation in the study.

One area that could impact on participation and in so doing distort survey responses are levels of psychological distress in potential participants at the time of approach, possibly impacting on survey participation. Increased levels of depression, anxiety or stress could increase participation due to increased desire for support or conversely decrease participation through heightened social withdrawal (Brownhill, et al., 2002). Likewise insecure attachment may have introduced a further self-selection bias in the sample. Research has suggested that attachment influences the preference and effectiveness of therapy with increased attachment security reducing the preference to discuss emotive material and the effectiveness of treatment modalities (Hughes, 2004; McBride, et al., 2006). It is possible that community members with heightened attachment insecurity preferred not to participate in the study for fear of discussing emotive material.

9.4.6 Limited aspects of parenting explored

A final limitation is the limited exploration of parenting variables in the study. Prior research using the Parental Bonding Instrument (PBI; Parker, et al., 1979) has established the importance of care and protection as significant parenting variables impacting subsequent psychological health (Gladstone & Parker, 2005). Refinement of the PBI led to the development of the Measure of Parenting Style (MOPS; Parker, et al., 1997b) focusing on indifference, over control and the inclusion of a scale to measure general levels of abuse. The inclusion of an abuse scale adds breadth to measures of parenting complementing significant variables thought to underlie effective parenting (Parker, et al., 1997b).

Notwithstanding this, the MOPS explores aspects of both emotional and physical abuse and does not incorporate sexual abuse which has likewise been found to have a significant impact on adjustment (Stevenson, 1999). It is also possible that the parenting behaviours considered in the study act in an indirect way on the development of adult psychopathology and in the nature of romantic relationships by increasing the probability of other significant developmental experiences. High levels of paternal indifference and low levels of over control may increase externalizing behaviour in young males (Flouri, 2007) placing them at greater risk of offending through associating with negative peers (Henggeler, et al., 1998).

9.4.7 Full randomisation of the sample

A fifth stage of randomisation was proposed in the development of the study methodology specifying how the individual(s) within the households were selected to participate. This final level of randomisation was removed from the methodology due to concerns expressed by the ethics committee reviewing the study. The absence of a fifth stage resulted in some houses having multiple respondents. This

introduced the possibility of a confound to the data, were some responses were possibly nested.

The introduction of a de-identifying process suggested by the university ethics committee, which separated surveys from any identifying information, also made any statistical corrections to the data impossible. Though the absence of this final stage of randomisation presents some methodological challenges, the levels of randomization still represents a significant strength to the study.

9.5 Study Strengths

One of the significant strengths of the current research was the use of a randomised sample of the general community from which the data was drawn. Findings in previous research have often been limited by the exclusive use of convenience samples of university students or clinical populations (Fairchild & Finney, 2006; Tsagarakis, et al., 2007).

The current study addressed this limitation through the use of a randomised sample of the general population. Review of prior literature indicates the use of convenience student samples studying undergraduate psychology degrees with high proportions of participants being female and in their late teens and early twenties.

A significant limitation in the use of student sample is the impact of maturity on internalised beliefs of self, others and relationships (Klohn & Bera, 1998). As one matures in age and experiences, the nature of romantic relationships differ as one acquires more adaptive patterns of relating and changes expectations (Miller, 2000; Miller, Yorgason, Sandberg & White, 2003).

The strength of the current study was the use of a randomised community sample which enabled an exploration of romantic relationships reflecting broader relationship experience, expectations and skills built on experience in relationships over the life span and across developmental tasks (including study, independence from home, development of a career, establishing long-term romantic relationships and establishing families). The use of a randomised community sample also limited the impact of a range of possible confounds to the data including age, education and socioeconomic influences.

A further strength of the study was the use of a majority of measures that had established norms for the population from which the sample was drawn. These measures had published norms using Australian samples and included the Personal Description Questionnaire (PDQ; Antill, Cunningham, Russell & Thomson, 1981), Depression Anxiety & Stress Scale (DASS; Lovibond & Lovibond, 1995) and the Measure of Parenting Style (MOPS; Parker, Roussos, Hadzi-Pavlovic, Mitchell, Wilhelm & Austin, 1997). The use of these measures further added to the robust design of the study through assuring that measures used were appropriate for the population sample and thus increased the face validity of the results.

The findings from this research also made a significant contribution to literature by exploring the impact of past parenting experiences on romantic relationships, gender role values and current psychosocial health through testing a disaggregated assessment of paternal and maternal parenting practice. In particular the use of canonical analysis enabled the identification of not only the impact strength of variables under consideration, through identifying the total variance

accounted for, but also identifying the unique contribution each variable made to outcome variables. These strengths in the research design enabled the study to more effectively achieve its aims and ensuring greater confidence in the results through minimizing the confounds identified.

9.6 Recommendations for Clinical Practice and Further Research

The preceding research findings provides evidence that early childhood parenting experiences and to a lesser extent gender role orientation significantly influences an individuals ability to access emotional support within their family system and more broadly in the general community. These research findings have significant implications to both clinical practice and the development of mental health policy.

Many interventions implemented to address psychological health (mental health services, drug treatment, parenting programs) have relied on individuals accessing support and building some form of therapeutic relationship with a health professional. The finding of this study supports previous research that suggests that those at highest need for mental health intervention are also less likely to access emotional support due to their heightened anxiety and avoidance when emotionally distressed (Bartholomew, et al., 1997). This suggests that the pattern of attachment learnt in early childhood through repeated parenting experiences significantly influences adult mental health and emotional support seeking behaviour. Thus emotional support seeking behaviour is a mediator between an individual's attachment style and the emotional support they receive from their family system or more broadly from the community.

The provision of psychological services in Australia have been developed with an underlying assumption that a person in need of emotional support/treatment will access some form of support service to address their need. Research findings highlight a significant proportion of people experiencing emotional distress, do not access professional services (Hillman et al., 2000; Shaffer, et al., 1996) or do not access follow through with treatment post referral (Van Heeringten et al., 1997).

The results of the preceding study suggest that both insecure attachment security and gender role orientation play a significant role in the propensity to access emotional support and the nature of the support accessed. The findings of the current study suggest that a lower likelihood of access to emotional supports arise from attachment related perceptions that the individual is both not worthy of receiving emotional support and perceptions that others are not able to provide this support. Furthermore, poor identification with both masculine and feminine values combined to reduce men's propensity to access emotional support. The study also found that secure attachment and gender role identification significantly depression and anxiety symptoms for both men and women. This arguably sets up a treatment paradox where those at greatest need have less propensity to access emotional support in their ecology (family, friends and romantic partner) or more broadly in the general community.

With financial constraint a constant challenge to the provision of mental health services, effective targeting of resources to match mental health needs has increasingly become a focus. If indeed a treatment paradox exists then the take up of professional services and treatment drop out rates by those experiencing

psychological distress is significantly influenced by both attachment and gender role values. This has implications to both policy and clinical practice.

At a policy level greater emphasis needs to be placed on directing resources out of clinic based programs to community programs. Community based interventions that go to the workplace or are activity focused could increase engagement. The emphasis on emotional disclosure in traditional modes of therapy can be perceived as threatening limiting engagement. Previous research has indicated the significant impact of insecure attachment on self-disclosure and treatment efficacy (Feeney, et al., 2000; Reis & Grenyer, 2004). An emphasis on activities in non clinical settings such could provide an non threatening environment that would foster the development of rapport and open the possibility of therapeutic intervention. The emergence of community based programs such as 'The Shed' program that provide a venue for men to meet, share skills (carpentry and mechanics) and develop collaborative and emotionally supportive relationships. The primary focus on activity, collaboration and skills exchange provides a forum to develop strong emotional bonds in a non-threatening environment. An re-orientation of clinical practice from a clinical setting with a focus on emotional disclosure to a community setting with a task focus would likely increase the access of men to emotional supports.

The results of the study also highlight significant differences in the interplay of attachment and gender role orientation for males and females in their presentation of psychological distress. This presentation provides some direction to clinicians and therapeutic practice. For both males and females secure attachment (low levels of attachment anxiety and avoidance) corresponded to generally reduced symptoms

of depression and anxiety. For women reduced identification with feminine values decreased symptoms of psychological distress whilst increased masculine values had generally the same effect in men.

Arguably mental ill health and psychotherapy is fundamentally concerned with relationships. The therapeutic environment provides the client with a safe and secure environment to discuss attachment related material. Therapy generally focuses on present and past relationships and their impact on the client sense of self and how they manage relationships in their ecology. Therapy can review these experiences and explore patterns in both behaviour, the nature of relationships and links to current psychological distress and coping strategies. Furthermore, the relationship between the therapist and client provides the potential for a corrective emotional experience to explore and challenge internalized attachment styles and behaviour and develop new internalised models of self and others (Bowlby, 1988; Sheldon & Reiffer, 1989). Though this is true for both men and women the differential impact of gender role orientation for women and men suggests differences in emphasis is also required in clinical practice. Therapeutic interventions need to integrate gender role identification to tailor to the differing needs men and women. The present research suggests that the instrumental nature, or agency, of masculine values, when combined with secure attachment reduces psychological distress in men. Conversely, increased identification with feminine values, or communion, combined with insecure attachment has a detrimental impact on the emotional health for women. The study findings suggest that whilst providing a corrective emotional experience to increase attachment security through therapy men require greater agency in the public ecology whilst women require decreased communion in the private ecology.

The results of this study highlight a number of avenues for further research are warranted. Though the ECR-R was found to be a robust measure of attachment in relationships, future research may wish to explore shorter versions of the measure and remove weaker items. It is suggested that further research could further refine the ECR-R with more robust psychometric properties through removal of items that share common factors or weakly load on anxiety and avoidance factors.

Although the current paper has provided valuable confirmatory evidence for the strength of the ECR-R as a measure of relationship avoidance and anxiety drawn from data of a general community sample, this research could be further extended to explore temporal stability of the ECR-R. Although prior research has established short-term stability of the measure (Sibley & Liu, 2004) medium-term and long-term data utilizing general community samples would contribute significantly to the body of literature supporting the psychometric strength of the ECR-R as reliable and stable measure of adult romantic attachment.

A third area of further research explore the strength and variance of the ECR-R across cultural groups and age cohorts. As highlighted in the literature review many of the studies reporting the psychometric properties of the ECR-R have used student samples often drawn from North American university populations. Only one study has explored the psychometric properties of the ECR-R outside of a North American cultural context. Tsagarakis, et al., (2007) found the Greek version of the ECR-R had a clear two-factor structure and adequate psychometric properties when tested on a sample of Greek undergraduate students. Future research could

extend our understanding of attachment in romantic relationships within differing cultural groups and establish broader norms for the ECR-R.

9.7 Chapter Summary

Notwithstanding the limitations noted the present study provides evidence for the significant influence of fathers in both romantic attachment and in the experience of ongoing psychosocial distress particularly for women. The study provided valuable data on the psychometric qualities of the ECR-R using a community sample and confirming the adequate strength of the instrument.

Results also indicated that parenting practice (low father indifference and mother over control) was a strong influence in attachment formation as evidenced in anxious attachment in romantic relationships for women. Interestingly, no significant relationship between parenting variables and attachment and gender role outcome variables was found for men in the community sample. Though recalled parenting practice only had a significant impact on the nature of interpersonal relationships for women these parenting variables significantly impacted on the mental health of both males and female participants. The results indicated that differing combinations of reported paternal parenting practice combined with low maternal control impacted in a differential way on male and female mental health symptoms and access to emotional support.

The study also explored the interaction of attachment and gender role orientation as measures of interpersonal functioning and their impact on measures of mental health, access to emotional support and the nature of support accessed when in need. The results indicated that both measures of attachment in romantic

relationships and gender role orientation impact significantly on males and females, although differentially. Decreased attachment anxiety within a romantic relationship significantly reduced propensity to access emotional support for women whilst a more complex interaction of attachment and gender role variables reduced propensity to access emotional support for men. These results are particularly poignant in the absence of literature from a nationally representative sample of the general community.

Our relationships are significant factors in determining our psychosocial health and wellbeing with both paternal and maternal relationships with their children having an enduring impact across the lifespan not only on one's health but also in laying the foundations for how subsequent relationships to people are developed and maintained. The results support aspects of Adam's narrative and some of the themes his story highlights. The results provide an indication of the importance of both mother's and father's emotional engagement with their children whilst providing an environment that promotes developmentally appropriate independence, acceptance and emotional warmth.

Adam's anxious attachment is clearly evidenced in many of his relationships as his poor propensity to access emotional support and poor emotional support network. His gender-based values that also determined his level of emotional vulnerability was also evidenced in his beliefs and actions. This interaction of attachment and gender role was supported in the findings of this research. It is hoped that both this narrative and research together can contribute to better understanding the mechanisms that found our interpersonal relationships whilst also informing better clinical practice when developing services for those in need.

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Every reasonable effort has been made to acknowledge the intellectual rights and ownership of material and ideas used in this thesis. I would be pleased to hear from any author who has been omitted or incorrectly acknowledged in this work.

Appendix A

Appendix A Table of Contents

Appendix B Random Numbers Table (de Vaus, 1995)

Appendix C Sampling Frame for the Perth Metropolitan Area

Appendix D Stage 1 Cluster Sampling of Reference Map Pages Perth
Metropolitan Area

Appendix E1 Reference Map 220 Source for Randomly Selected Blocks

Appendix E2 Streets Within the Bounds of Randomly Selected Blocks,
Reference Page 220

Appendix E3 Reference Map 252 Source for Randomly Selected Blocks

Appendix E4 Streets Within Randomly Selected Blocks, Reference Page 252

Appendix E5 Reference Map 256 Source for Randomly Selected Blocks

Appendix E6 Streets Within the Bounds of Randomly Selected Blocks,
Reference Page 256

Appendix E7 Reference Map 283 Source for Randomly Selected Blocks

Appendix E8 Streets Within the Bounds of Randomly Selected Blocks,
Reference Page 283

Appendix E9 Reference Map 285 Source for Randomly Selected Blocks

Appendix E10 Streets Within the Bounds of Randomly Selected Blocks,
Reference Page 285

Appendix E11 Reference Map 341 Source for Randomly Selected Blocks

Appendix E12 Streets Within the Bounds of Randomly Selected Blocks,
Reference Page 341

Appendix E13 Reference Map 372 Source for Randomly Selected Blocks

Appendix E14 Streets Within the Bounds of Randomly Selected Blocks,
Reference Page 372

Appendix E15 Reference Map 403 Source for Randomly Selected Blocks

Appendix E16 Streets Within the Bounds of Randomly Selected Blocks,
Reference Page 403

Appendix E17 Source for Randomly Selected Blocks References Map 460

Appendix E18 Streets Within the Bounds of Randomly Selected Blocks,
Reference Page 460

Appendix E19 Source for Randomly Selected Blocks Reference Map 465

Appendix E20 Streets Within the Bounds of Randomly Selected Blocks,
Reference Page 465

Appendix E21 Reference Map 554 Source for Randomly Selected Blocks

Appendix E22 Streets Within Randomly Selected Blocks, Reference Page 554

Appendix E23 Reference Map 581 Source for Randomly Selected Blocks

Appendix E24 Streets Within Randomly Selected Blocks, Reference Page 581

Appendix F Distribution of Returned Surveys by Postcode and Suburb

Appendix G Missing data by case across instruments used in studies

Appendix H Script for Random Selected Residences

Appendix I Ethical Considerations

Appendix J Instrument Subscale Tallies

Appendix K Scatterplot ECR-R

Appendix L Survey form used in the studies

Appendix B

Random Numbers Table (de Vaus, 1995)

74605	60866	92941	77422	78308	08274	62099
20749	78470	94157	83266	37570	64827	94067
88790	79927	48135	46293	05045	70393	80915
64819	73967	78907	50940	98146	80637	50917
55938	78790	04999	32561	92128	83403	79930
66853	39017	82843	26227	25992	69154	38341
46795	21210	43252	51451	47196	27978	49499
95601	36457	34237	98554	46178	44991	43672
98721	44506	37586	67256	88094	51860	43008
61307	12947	43383	34450	62108	05047	15614
37788	01097	15010	97811	27372	81994	60457
36186	66118	90122	45603	94045	66611	69202
96730	13663	14383	51162	50110	16597	62122
98831	31066	21529	01102	28209	07621	56004
35450	24410	88935	84471	46076	60416	10007
92031	42334	27224	09790	59181	66958	91967
02863	16678	45335	72783	50096	52581	15214
80360	89628	47863	21217	62797	11285	42938
58193	16045	72021	93498	99120	36542	41087
66048	95648	94960	58294	07984	87321	23919
64013	08546	27779	23500	95216	02657	00507
16954	81754	99033	52841	70010	36264	00456
54678	59531	48692	54160	11913	16121	90023
42645	98295	26669	82199	81890	63100	62017
66168	44633	73068	55216	61896	83969	05327
20647	01061	18227	20195	38221	05767	63331
30807	93837	42210	81908	41729	86416	04579
51949	41361	35632	06696	57875	97196	73625
82283	46591	43057	91390	60051	13297	11149
49497	00053	78513	54381	88898	03418	06810
78519	88085	94119	19122	86546	47939	14878
13027	42777	93563	91253	81867	70344	44417
04734	27419	72065	23390	13789	85943	00374
78999	63470	24174	50695	53931	85452	02490
51891	19873	53220	27585	38457	46553	76585
64929	13632	66676	99334	75326	69810	43893
30319	67589	00013	23301	37314	22905	13887
13761	05561	10013	89946	57017	45797	50868
79180	44011	38067	99802	53490	18590	18818
85304	85681	87825	46262	84748	94568	56604

Appendix D

Stage 1 Cluster Sampling of Reference Map Pages for the Perth Metropolitan Area.

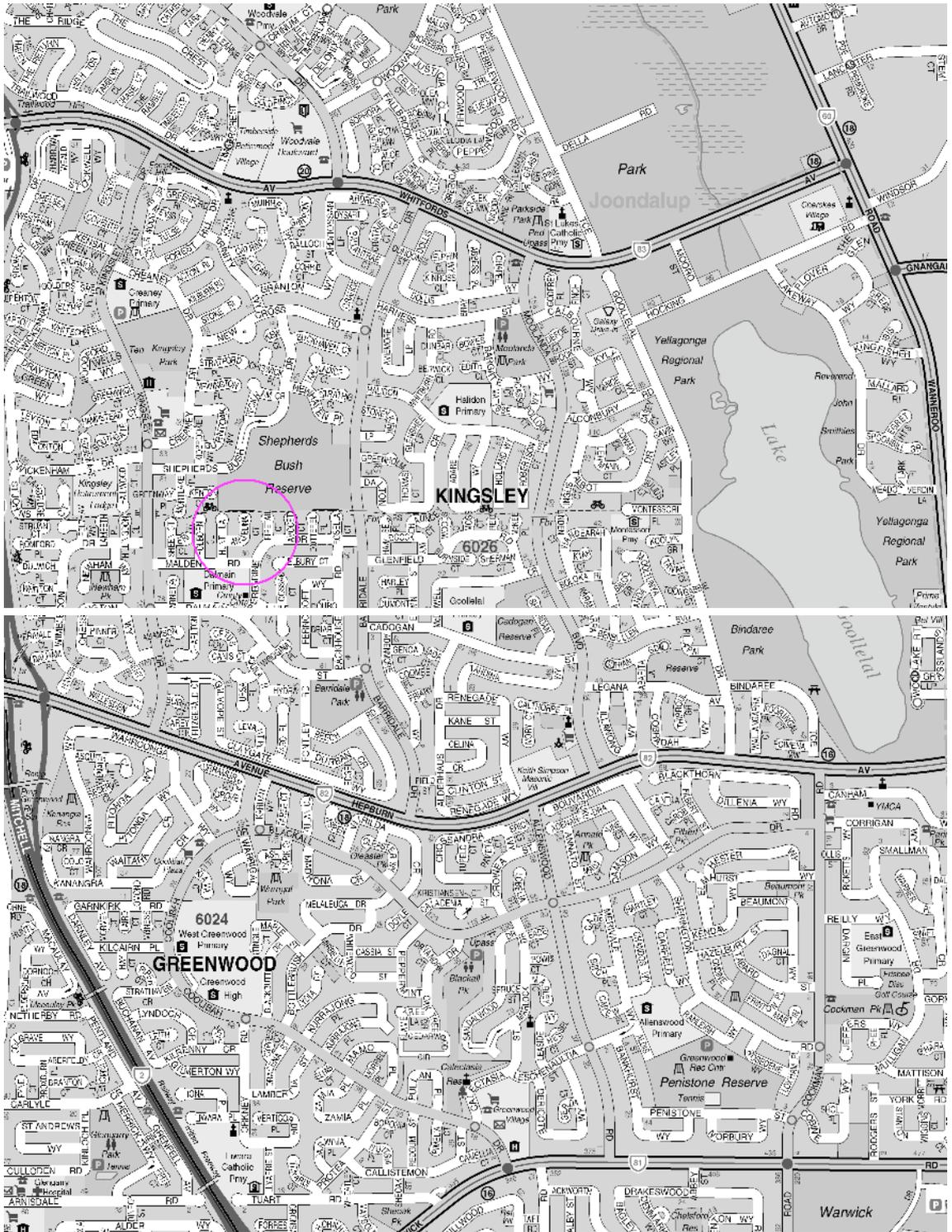
97	98	128	129	158	159
160	189	190	219	220	221
249	250	251	252	253	254
255	256	280	281	282	283
284	285	286	310	311	312
313	314	315	316	340	341
342	343	344	345	370	371
372	373	374	375	376	377
400	401	402	403	404	405
406	407	408	430	431	432
433	434	435	436	437	438
460	461	462	463	464	465
466	467	468	490	491	492
493	494	495	496	497	521
522	523	524	525	526	550
551	552	553	554	555	556
579	580	581	582	583	584
585	586				



Reference Map Page Selected

Appendix E-1

Reference Map 220 Source for Randomly Selected Blocks



Appendix E-2

Streets Within the Bounds of Randomly Selected Blocks, Reference Page 220

B1	20. Hillingdon Close	11. Bent Close
1. Twickenham Drive	21. Lambeth Place	12. Pinner Court
2. Redmonton Drive	22. Mortlake Place	13. Pinner Court
3. Edgware Place	23. Kenton Place	14. Kingsley Drive
4. Southgate Court	24. Sheen Court	15. Gilmore Street
5. Kingsley Drive	25. Frith Court	16. Ursa Place
6. Creaney Drive	26. Holborn Court	17. Canis Court
7. Kidbroome Way	27. Hunt Lane	18. Cetus Close
8. Burntoak Way	28. Angelina Court	19. Adamson Close
9. Shepherds Bush Drive	B2	20. Dalmain Street
10. St Johns Court	1. Newham Way	21. Barnet Place
11. Cambridge Mew	2. Malden Ord	A8
12. Hailwood Court	3. Dulwich Place	1. Quilter
13. Cambeth Place	4. Whitton Court	2. Megiddo Way
14. Hillingdon Close	5. Hamwell Court	3. Geddes Court
15. Strillan Court	6. Perivale Close	4. Vestey Court
16. Romford Parade	7. Balham Place	5. Mansel Place
17. Wimbledon Drive	8. Havering Court	6. Granadilla Street
18. Feltham Way	9. Willesden Ave	7. Jessel Place
19. Greenway Place	10. Wimbelton Drive	8. Seale Close

Randomly Selected Street

Relational Schema Formation and Access to Emotional Support 388
 Streets Within the Bounds of Randomly Selected Blocks, Reference Page 220 Cont

9. Colgrain Way

8. Frinton Way

10. Roden Place

9. Martin Place

11. Blount Court

10. Ranleigh Way

12. Channar Rise

11. Garfeld Way

13. Halgania Way

12. Sherington Road

14. Bracken Court

D8

15. Todea Court

1. Springvale Drive

16. Karo Place

2. Willow road

17. Telopia Drive

3. Fernlea Street

18. Lanark Mew

4. Badrick Street

19. Eckford Way

5. Churnton Court

20. Sequoia Road

6. Dugdale Street

E5

7. Dorchester Avenue

1. Cobine Way

8. Devon Court

2. Jeffers Way

9. Addison Way

3. Phee Place

10. Adela Place

4. Dargin Place

11. Bick Place

5. Cockman Road

12. Ballantine Road

6. Tabard Street

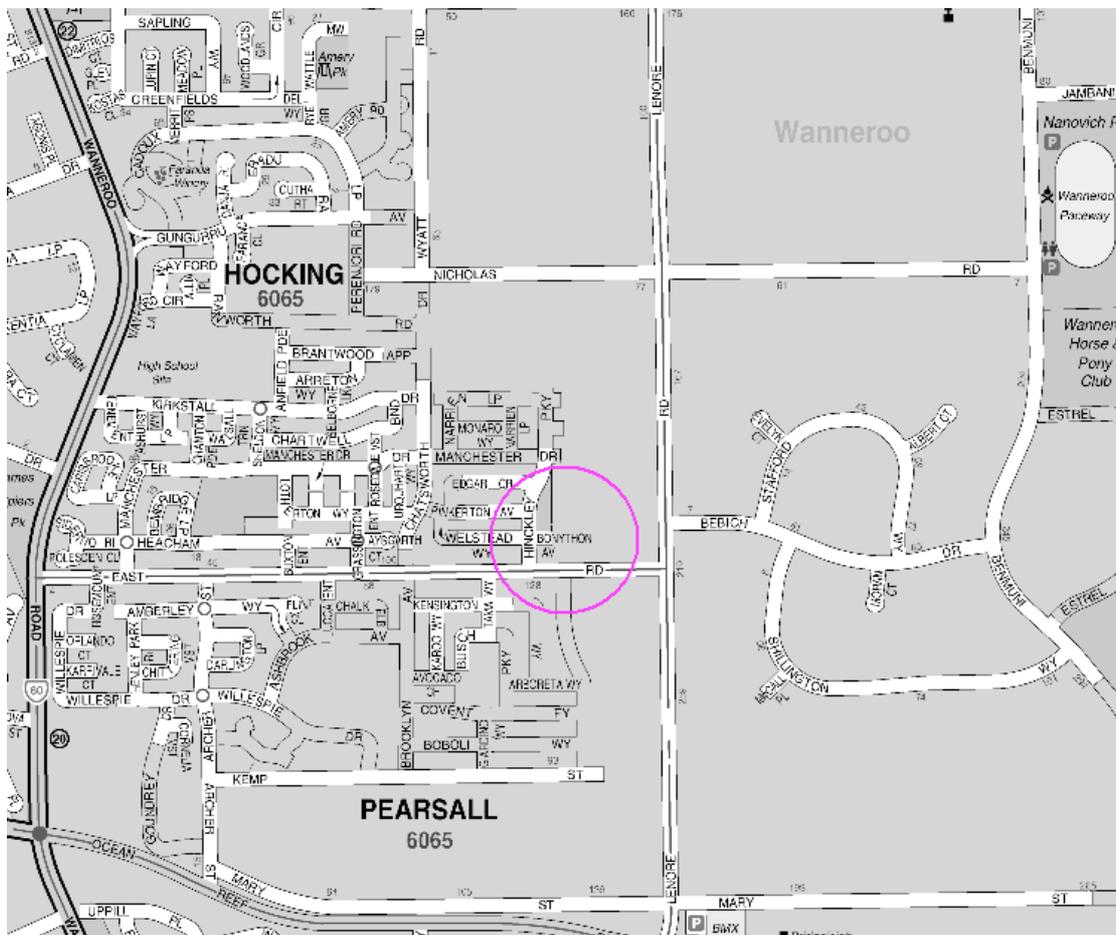
13. Ellerdale Avenue

7. Beaumont Way

] Randomly Selected Street

Appendix E-3

Reference Map 252 Source for Randomly Selected Blocks



Appendix E-4

Streets Within Randomly Selected Blocks, Reference Page 252

A3

D3

1. Lenore Road	1. The Fairways
2. East Road	2. The Links
3. Bonython Avenue	3. Golfview
4. Welstead Way	4. Badgerup Road
5. Pinkerton Avenue	D5
6. Edgar Crescent	1. Lakelands Drive
7. Manchester Drive	2. Ben Hall Rise
8. Monaro Way	3. Moondyne Trail
9. Chatsworth Drive	4. Badgerup Road
10. Urquhart Way	B4
11. Aysgarth Court	1. Mccall Place
12. Lotherton Way	2. Shillington Way
13. Manchester Drive	3. Morton Court
14. Narrien Loop	4. Bebich Drive
15. Kirstall Drive	

D4

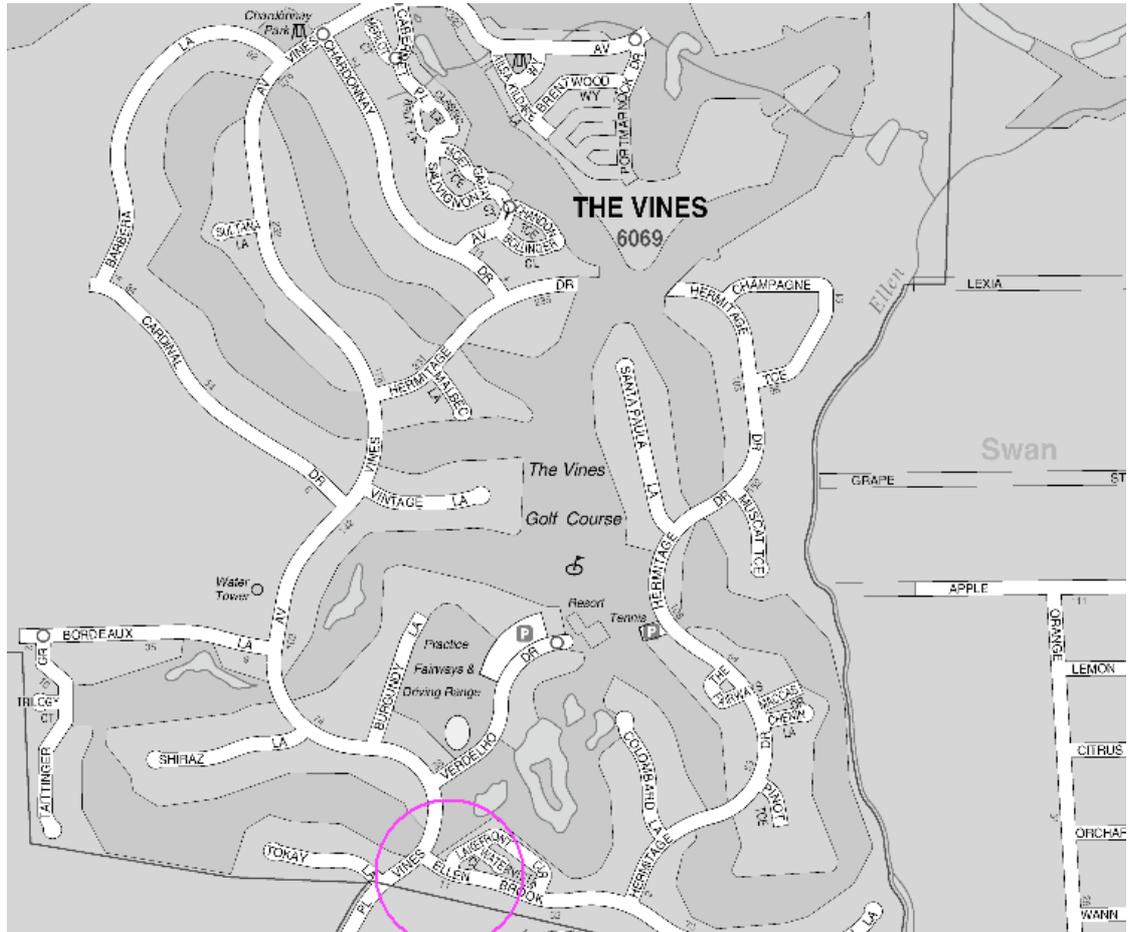
1. Badgerup Road
2. The Fairways
3. Mobila Place

--

Randomly Selected Street

Appendix E-5

Reference Map 256 Source for Randomly Selected Blocks



Streets Within the Bounds of Randomly Selected Blocks, Reference Page 256

B2

1. Millhouse Road
2. Chateau Avenue
3. Tokay Lane
4. Ellen Brook Drive
5. Lake Front Circle

A8

1. Rookwood Street
2. Saunders Street

D2

1. Ellenbrook Drive
2. Semillon Lane
3. Rose Street

C5

1. West Swan Road
2. Leake Place
3. Burgess Crescent

D3

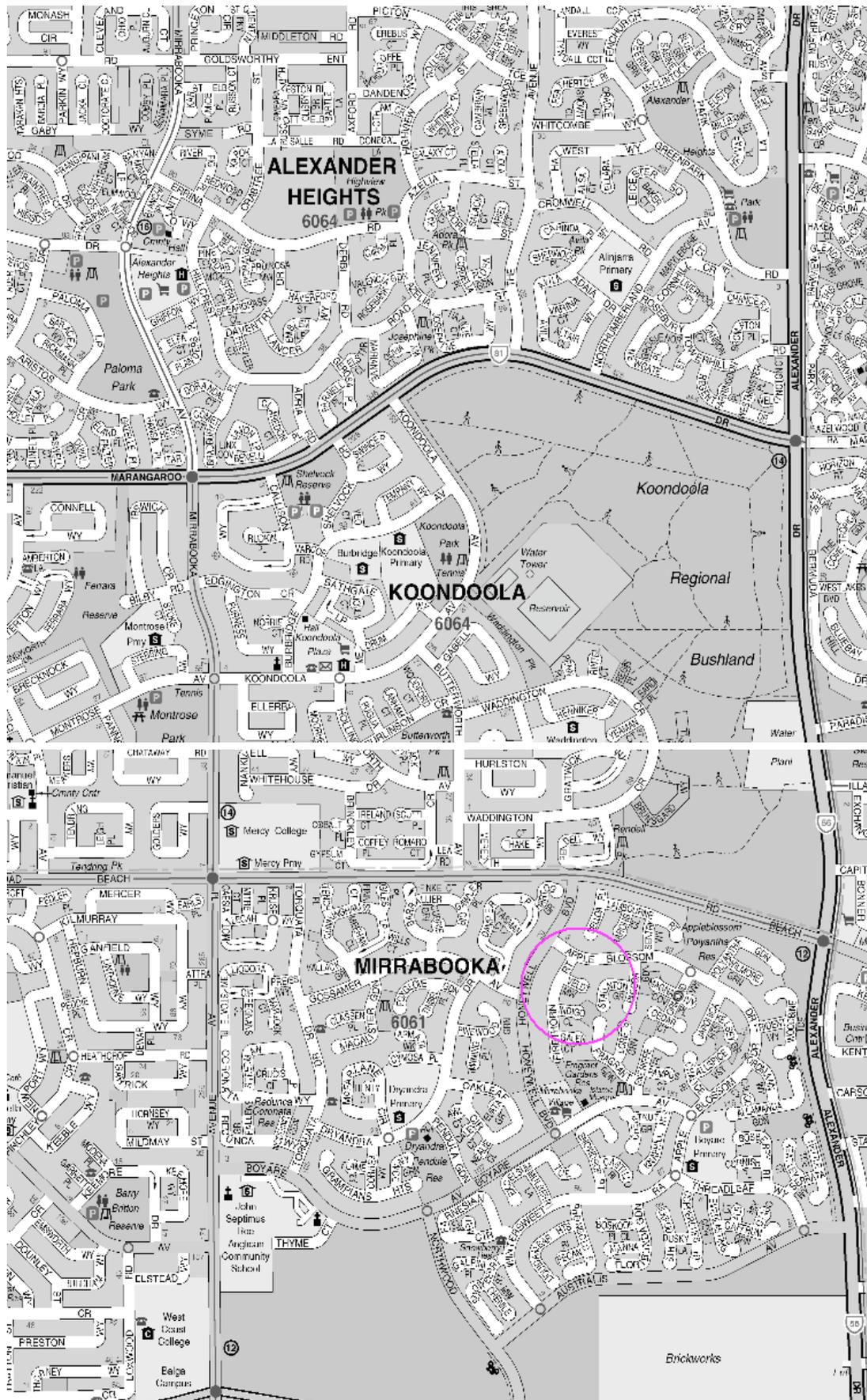
1. Millhouse Road
2. Anglesea Crescent

--

Randomly Selected Street

Appendix E-7

Reference Map 283 Source for Randomly Selected Blocks



Appendix E-8

Streets Within the Bounds of Randomly Selected Blocks, Reference Page 283

B10	20. Firethorn Retreat	16. Hummingbird Gardens
1. Lambourne Retreat	21. Galen Court	17. Crest Green
2. Sellona Place	22. Indigo Close	18. Peak View
3. Aarons Close	23. Veldt Mews	19. Bayview Vista
4. Sentry Way	D6	20. Sail Green
5. Polyanthia Gardens	1. Osprey Circle	21. Newhaven Heights
6. Willmore Gardens	2. Cherub Close	C7
7. Blossom Drive	3. Meadowview Drive	1. Lakeshore close
8. Trident Way	4. Fulmar Mews	2. Summerlakes Parade
9. Woodbine Terrace	5. Kestrel Parade	3. Reflection Gardens
10. Kelsy Gardens	6. Lark Mews	4. Promontory Parade
11. Japonica Hights	7. Sparrow Close	5. Blue Bay Hill
12. Teneriffe Place	8. Illawarra Crescent South	6. Westlakes Boulevard
13. Cedar Court	9. Dotterel Trail	7. The Cove
14. Ormondo Court	10. Jay Green	8. Tropical Gardens
15. View Place	11. Lorikeet Heights	9. Shoal Rise
16. Magna Cove	12. Jabiru Rise	10. The Haven
17. Ivy Place	13. Kittyhawk Parade	11. Bermuda Drive
18. Pagoda Gardens	14. Avocet Garden	C6
19. Staunton Gardens	15. Peregrine Rise	1. Bermuda Drive

--

Randomly Selected Street

Streets Within the Bounds of Randomly Selected Blocks, Reference Page 283 Cont.

C6	21. Nicholli Court	18. Marigold Garden
2. Summerlakes Parade	22. Parkvista Avenue	19. Azalea Place
3. Horizon Retreat	C5	20. Saddlehill Ramble
4. Lakeshore Close	1. Coachwool Gardens	21. Ashwood Close
5. Inlet Trail	2. Peppermint Crest	22. Casma Green
6. Marangaroo Drive	3. Malu Court	23. Vista Parade
7. Bayview Vista	4. Birdland Lane	24. Ridgehaven
8. Estuary Place	5. Illawarra Crescent North	25. Crest View
9. Amber Green	6. Dew Close	26. Parkside Gardens
10. Alpine lane	7. Juniper Place	
11. Ivy Close	8. Conifer Close	
12. Dellwood Lane	9. Honeysuckle Close	
13. Pepper Close	10. Magnolia Close	
14. Coachwool Gardens	11. The Grove	
15. Greenoaks Gardens	12. Glendale Mews	
16. Parkview Drive	13. Hakea Close	
17. Nandina Close	14. Bramble Way	
18. Hazelwood Ramble	15. Redgum Drive	
19. The Gables	16. Blackbut Mews	
20. The Rise	17. Elm Court	
		Randomly Selected Street

Reference Map 285 Source for Randomly Selected Blocks



Streets Within the Bounds of Randomly Selected Blocks, Reference Page 285

B10	3. Malvern Street
1. Cranleigh Street	4. West Swan Road
2. Roedean Street	
3. Dulwich Street	
4. Cheltenham Street	

C 10

1. Cranleigh Street
2. Rugby Street
3. Lord Street
4. Repton Street

E1

1. Georgeff Street
2. Park Street
3. Murray Road

D9

1. Cranleigh Street
2. Arthur Street

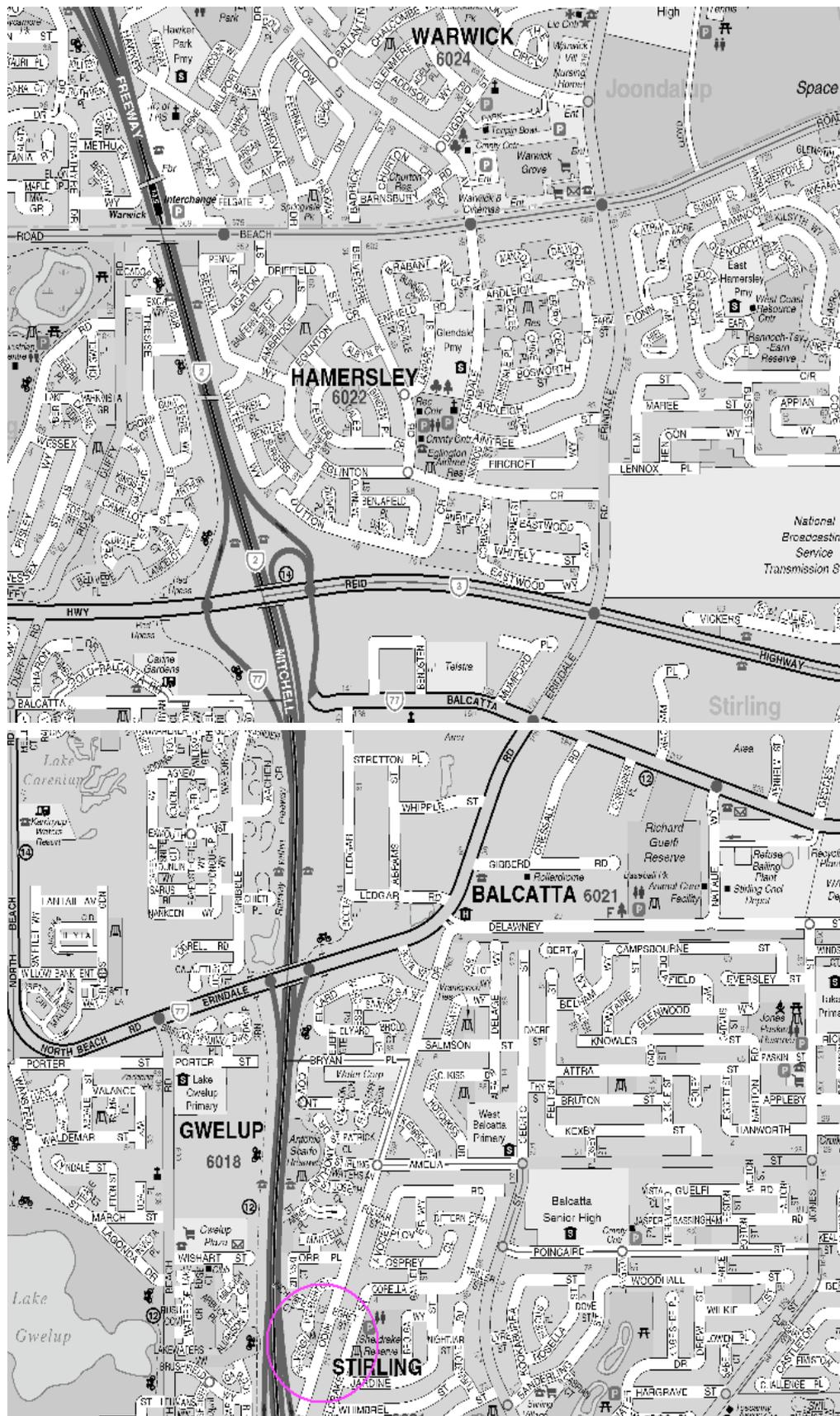
E10

1. Cranleigh Street
2. Sam Rosa Place

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Randomly Selected Street

Reference Map 341 Source for Randomly Selected Blocks



Appendix E-12

Streets Within the Bounds of Randomly Selected Blocks, Reference Page 341

B1

	7. Hakea Road	3. Bower Street
1. Scarborough Beach Road	8. Laural Road	4. Albemarle Street
2. Grant Street	9. Clematis Road	5. Shearn Crescent
3. Hazel Avenue	10. Odin Road	6. Mira Mar Street
4. Donar Street	11. Cloates Street	7. Koala Street
5. Mahlberg Avenue	12. La Grange Street	8. Oxcliffe Road
6. Ewen Street	13. Hartog Street	9. Queenscliffe Road
7. Howie Street	14. Roebuck Street	10. Parramatta Road
8. Huntriss Road	15. Thor Street	11. Coronation Street

9. Alver Road

C6

A3

10. Sydenham Road	1. Dolomite Road	1. Sulman Road
11. Princess Road	2. Pearson Street	2. Glenelg Avenue
12. Bassett Lane	3. Lakeside Road	3. Unwin Avenue
	4. Halcyon Way	4. Stockdale Crescent

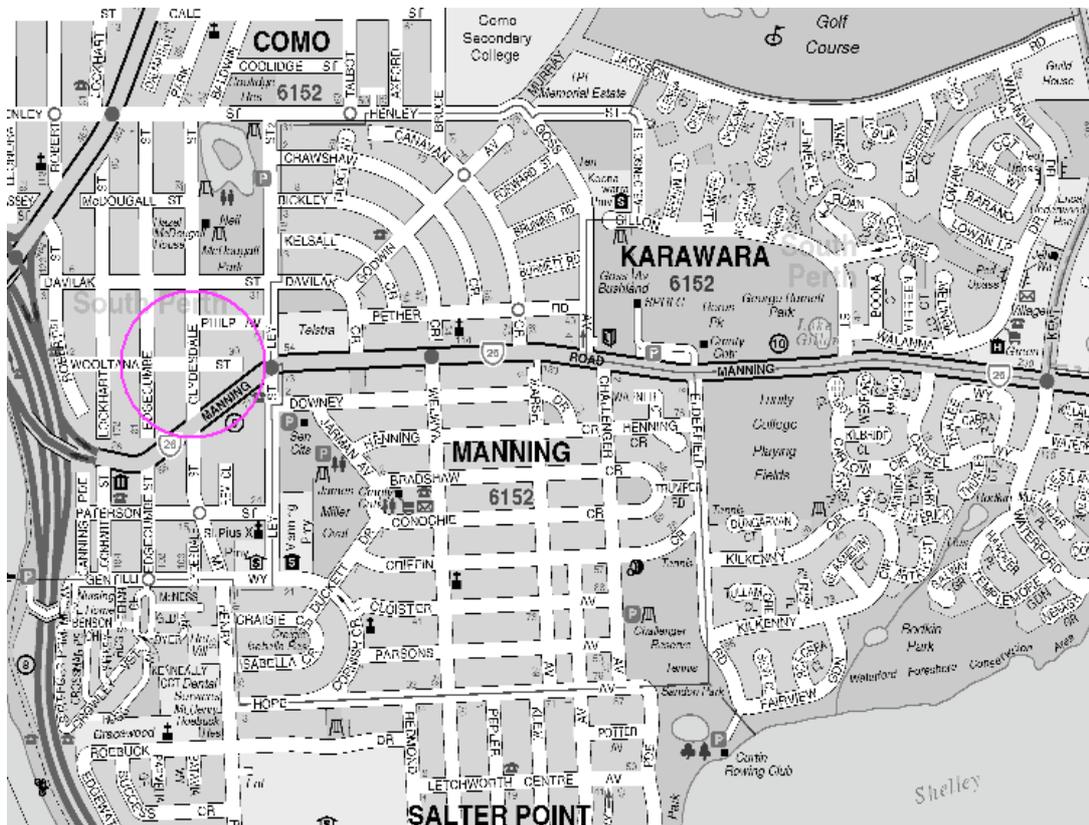
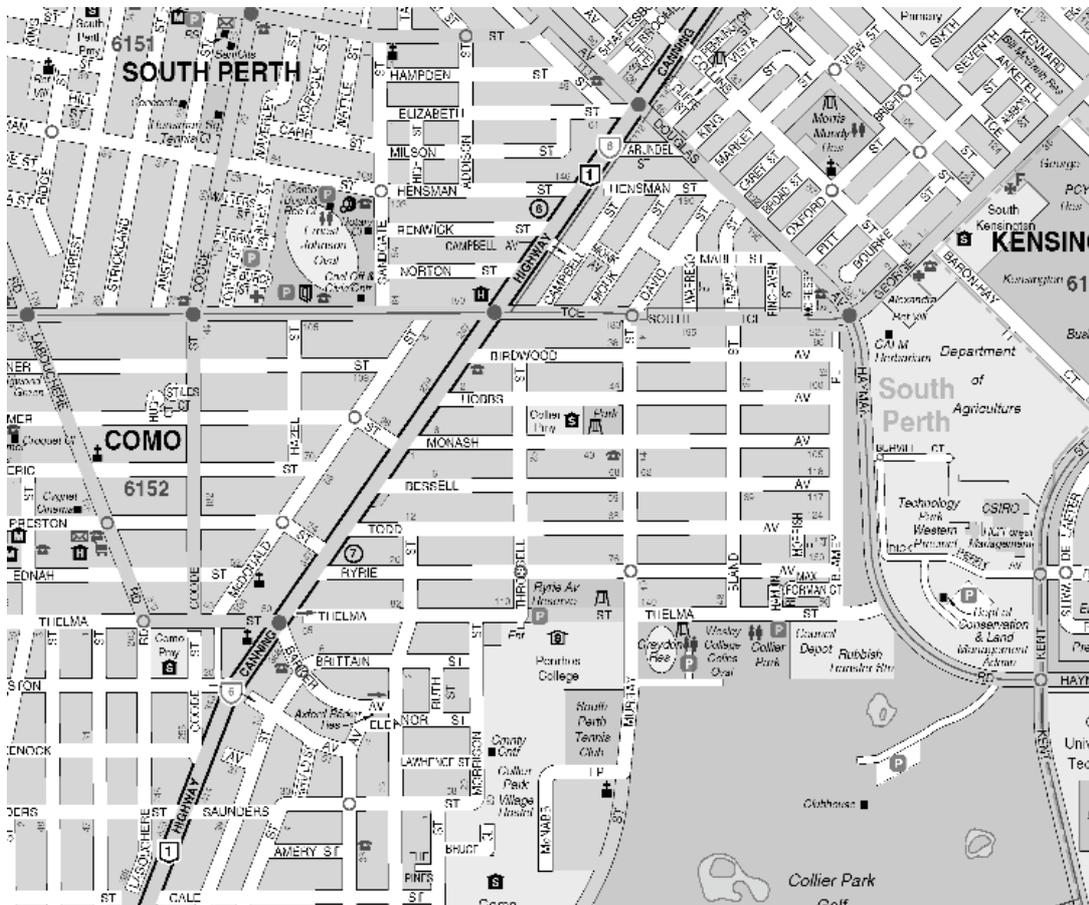
C1

1. Scarborough Beach Road	5. Thornbill Way	5. Kell Place
2. Ewen Street	6. Goldfinch Avenue	6. Arundale Crescent
3. Muriel Avenue	7. Red Wattle Place	7. Bournemouth Crescent
4. Bowra Avenue	A2	8. Wilson Crescent
5. Rowan Place	1. Cobb Street	9. Euston Place
6. Birchwood Avenue	2. Ramdale Street	10. Dunrossil Place

--

Randomly Selected Street

Reference Map 372 Source for Randomly Selected Blocks



Relational Schema Formation and Access to Emotional Support 402
Streets Within the Bounds of Randomly Selected Blocks, Reference Page 372 Cont.

8. Harper Street
9. Sunbury Road
10. Kitchener

11. Flint Street

12. Benporanth Street

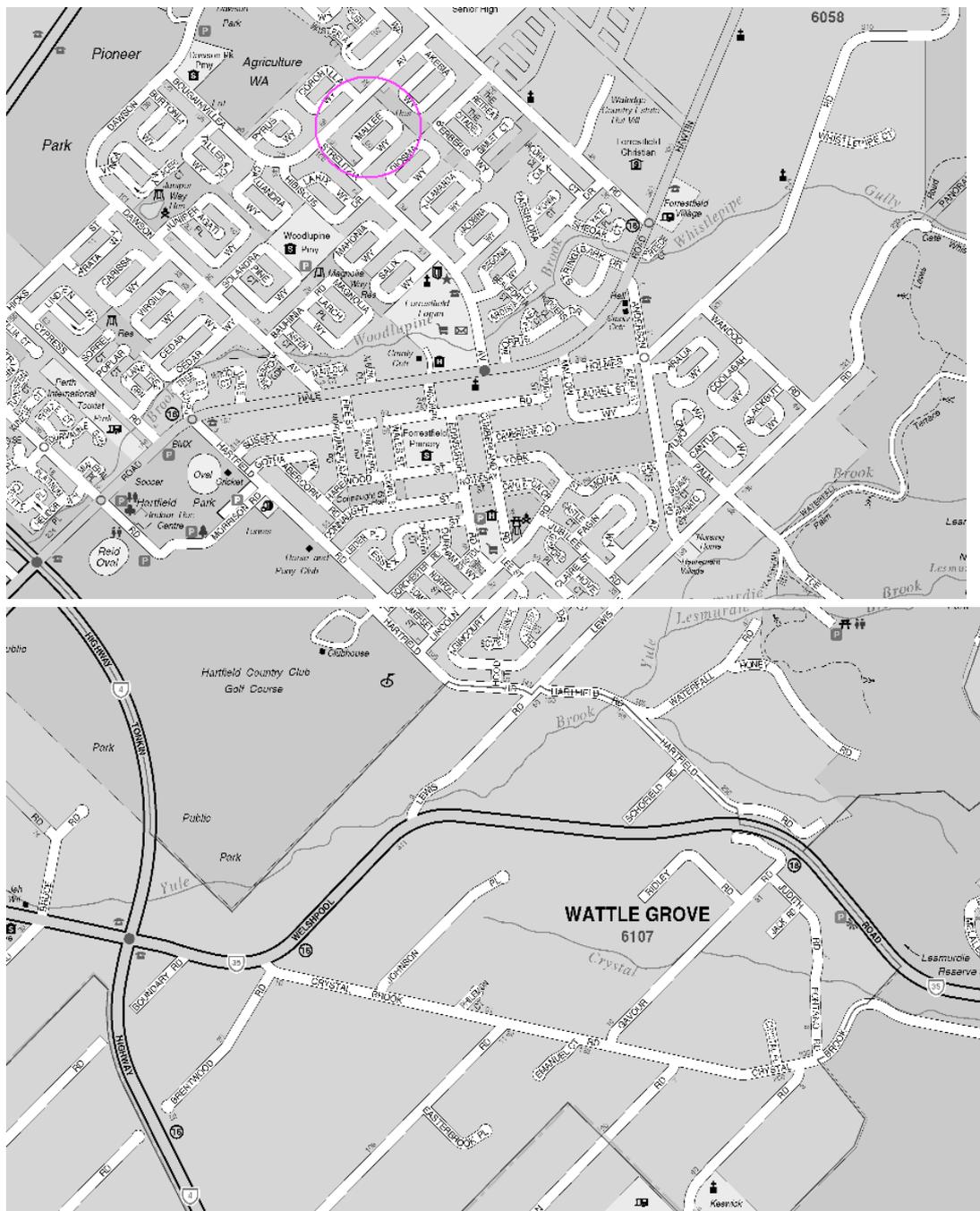
13. Cargill Street

--

Randomly Selected Street

Appendix E-15

Reference Map 403 Source for Randomly Selected Blocks



Appendix E-16

Streets Within the Bounds of Randomly Selected Blocks, Reference Page 403

A2

	9. Laurel Street	5. Akebia Way
1. Sultana Road	10. Alder Way	6. Mallee Way
2. Ibis Place	11. Anderson Road	7. Strelitzia Avenue
3. Maida Vale Road	12. Aralia Way	8. Diosma Way
4. Everit Place	13. Almond Way	9. Berberis Way
5. Dundas Road	C7	10. Citadel Way

D3

	1. Mosa Street
1. Oxford Court	2. Lomatia Street
2. Brewer Road	3. Ilex Way
3. Harold Road	4. Calluna Way
4. Quenington Court	5. Berkshire Court

D10

	6. Berkshire Road
1. Ardisia Court	7. Mandevilla Street
2. Hakea Court	8. Hollybush Court
3. Morris Drive	9. Wistera Court

C8

4. Hale Road	
5. Rodgers Close	1. Coronilla Way
6. Sussex Road	2. Pyrus Way
7. Coburg Street	3. Bougainvilla Avenue
8. Mallow Way	4. Calluna Way

--

Randomly Selected Street

Source for Randomly Selected Blocks Reference Map 460



Appendix E-18

Streets Within the Bounds of Randomly Selected Blocks, Reference Page 460

A3	20. Binns Court	19. Council Road
1. Craig Street	B2	C3
2. Rule Street	1. George Street	1. Amhurst Street
3. Staples Street	2. Marmion Street	2. Stack Street
4. Leslie Road	3. Glyde Street	3. Knutsford Street
5. Fay Street	4. Hubble Street	4. Stevens Street
6. Pamment Street	5. Sewell Street	5. Watkins Street
7. Corkhill Street	6. King Steet	6. Hope Street
8. Herbert Street	7. Forrest Street	7. Trusting Lane
9. White Street	8. Holland Street	8. Samson Road
10. Irene Street	9. East Street	9. Yilgarn Street
11. Heveron Street	10. Onslow Street	10. Kellow Place
12. Letitia Street	11. Moss Street	11. Bolton Place
13. Philis Street	12. Tondarup Way	12. Hudson Mews
14. Harvest Road	13. Speedy Cheval Street	13. Amhurst Street
15. Walter Place	14. Bay Patch Street	14. Swanbourne Street
16. Higham Road	15. Polo Way	E4
17. Keel Place	16. Raceway Road	1. Chadwick Street
18. Foundry Place	17. Richmond May Street	2. Harwood Street
19. Salustri Court	18. Silas Street	3. Joslin Street

--

Randomly Selected Street

Relational Schema Formation and Access to Emotional Support 407
Streets Within the Bounds of Randomly Selected Blocks, Reference Page 460 cont.

4. Acnnie Court

3. Moran Court

5. Nicholas Court

4. Strang Court

6. Snook Court

5. Hale Road

5. Oldham Street

6. Thomas Street

6. Paget Street

7. Hulbert Street

7. Instone Street

8. Walker Street

8. Geigg Street

9. Hickory Street

9. Butson Street

10. Orient Street

10. Howson Street

11. Mc Laren Street

11. Collick Street

12. Lloyd Street

12. Cooke Street

13. Parmelia Street

13. Doust Street

14. Commercial Street

14. Holms Street

15. Harbour Road

15. Benwith Street

16. Porcelli Way

16. Tonkin Road

17. Scott Street

17. Boas Place

18. Moran Court

18. Lee Road

D2

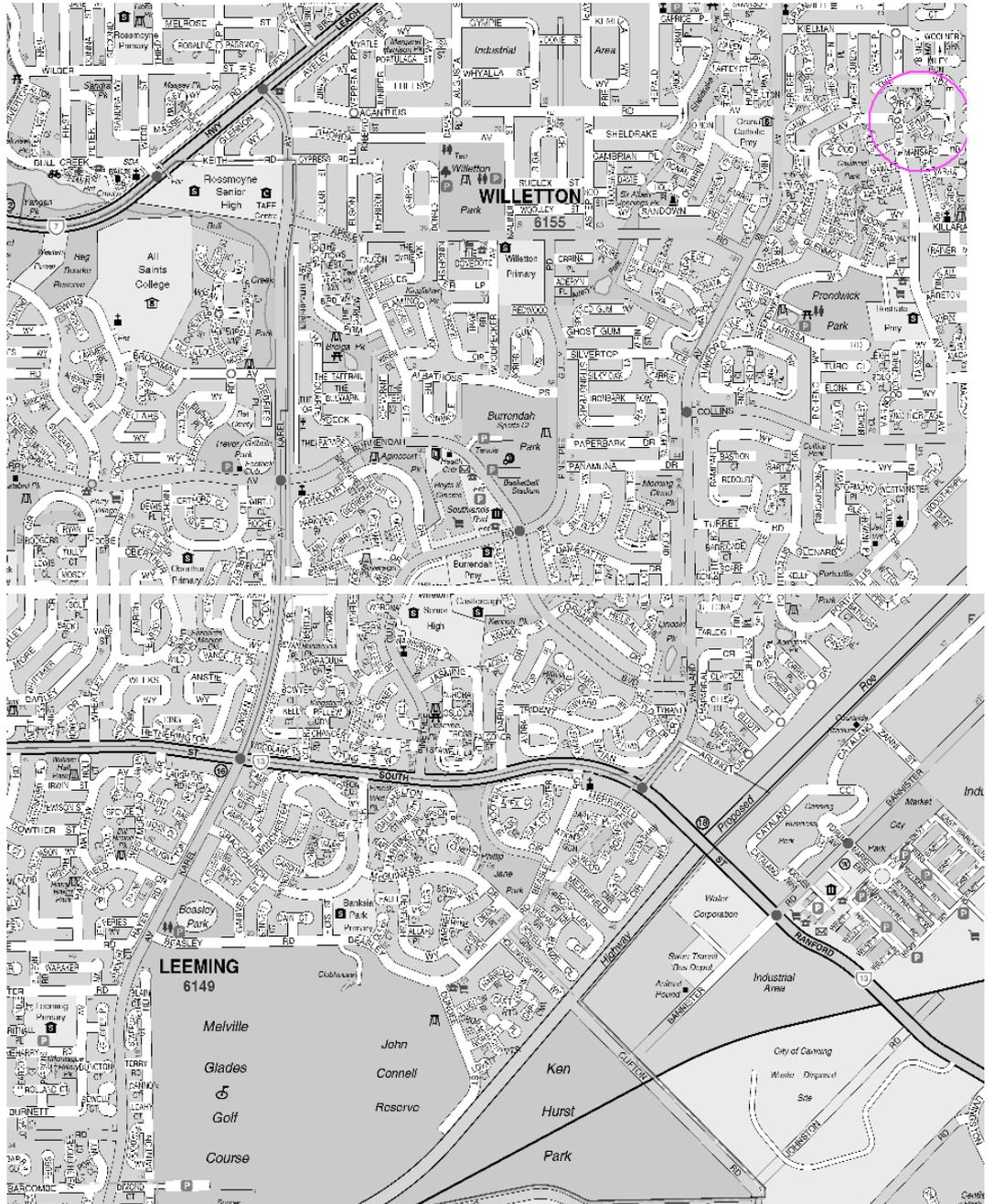
1. Culver Street

2. Nayler Street

--

Randomly Selected Street

Source for Randomly Selected Blocks Reference Map 465



Appendix E-20

Streets Within the Bounds of Randomly Selected Blocks, Reference Page 465

A3	19. Prescott Court	12. Paramatta Lane
1. Dane Place	20. Hossack Avenue	13. Hawesbury Drive
2. Leymar Way	21. Lisbon Court	14. McArther Court
3. Mansard Road	22. Nerida Way	15. Nepean Place
4. Yarra Close	23. Bohemia Way	16. Kim Court
5. Gerber Court	24. Ropele Drive	17. Penrith Court
6. Killara Drive	25. Benzie Way	18. Tian Court
7. Rainer Mews	26. Hatcher Drive	19. Scylla Court
8. Bowen Place	A4	20. Fingall Way
9. Hawkesbury Drive	1. Rainer Mew	21. Arreton Court
10. Julia Place	2. Ropele Drive	22. Kim Court
11. Catherine Place	3. Willeri Drive	A5
12. Easton Place	4. Noonan Court	1. Rostrata Avenue
13. Canterbury Drive	5. Kendrew Court	2. McQuarie Way
14. Canni Place	6. Nicol Road	3. Collins Road
15. Barenco Place	7. Wellgrove Avenue	4. Woodthorpe Drive
16. Millar Place	8. Gedling Close	5. Bodymoat Place
17. Rostellan Place	9. Young Lane	6. Velgrove Avenue
18. Willari Drive	10. Neon Close	7. Agres Court
19. Prescott Court	11. Heron Place	8. Finula Place

Randomly Selected Street

Relational Schema Formation and Access to Emotional Support 410
Streets Within the Bounds of Randomly Selected Blocks, Reference Page 465 Cont.

9. Duncun Place

3. Menzies Place

10. Young Lane	4. Cameron Street
11 Hurley Street	5. Parer Close
12. Willeri Drive	6. Wifred Road
E2	7. Meyrick Way

1. Langford Ave

2. Turley Way

3. Turley Court

4. Powis Court
5. Southgate

6. Boxley

7. Barnston Way

8. Jeddo Court

9. Chase Court

10. Simons Way

11. Brookman Avenue

12. Choseley Place

E4

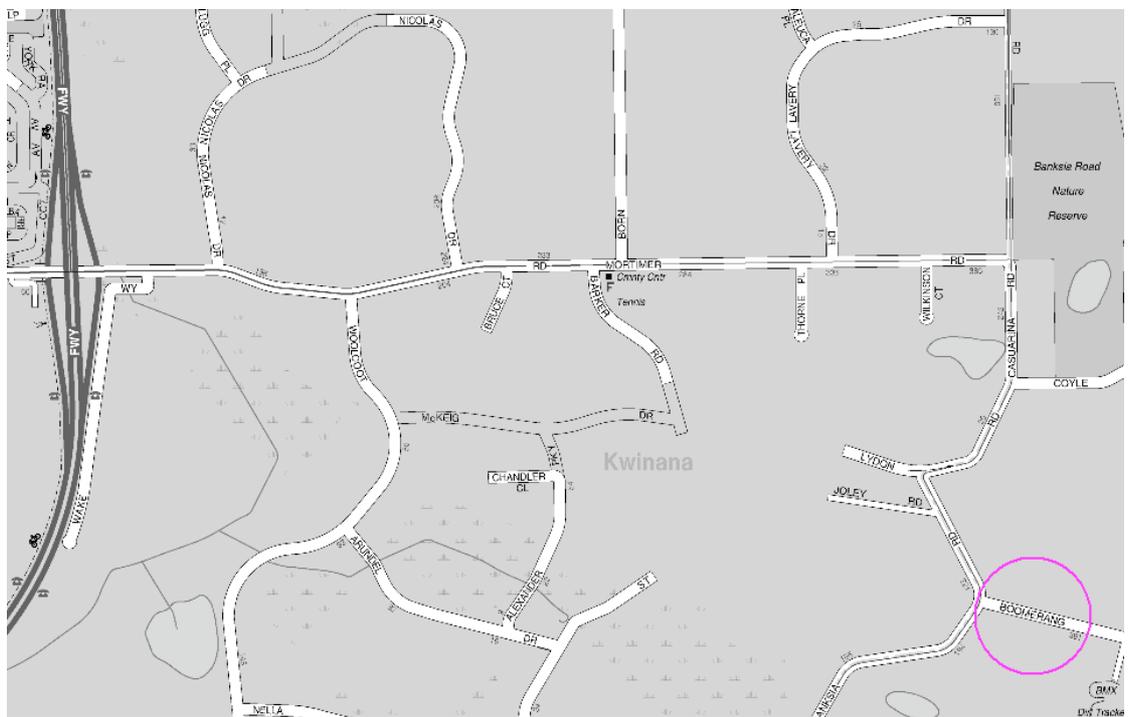
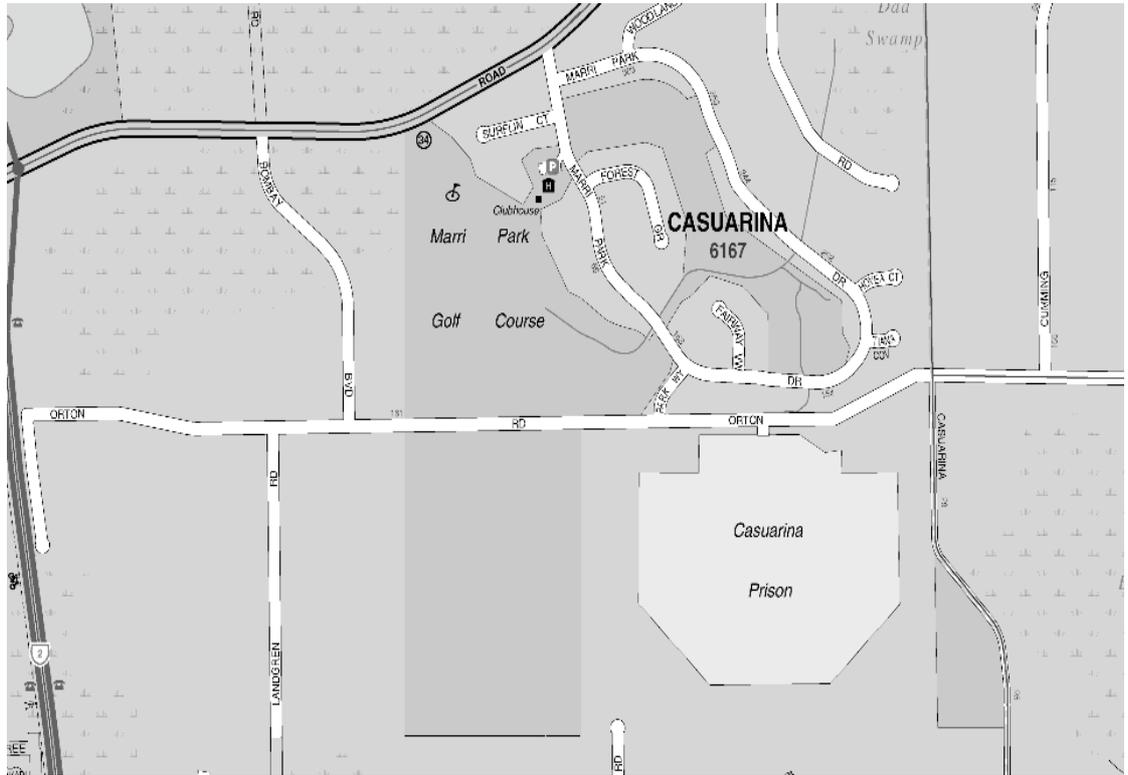
1. Woodmore Road

2. Jewel Court

--

Randomly Selected Street

References Map 554 Source for Randomly Selected Blocks



Streets Within the Bounds of Randomly Selected Blocks, Reference Page 554

A1

1. North Lake Road
2. Juliet Road
3. Abernethy Road

C9

1. Gossage Road
2. Boomerang Road

A5

1. King Road
2. Orton Road

A7

1. King Road
2. Anderson Road

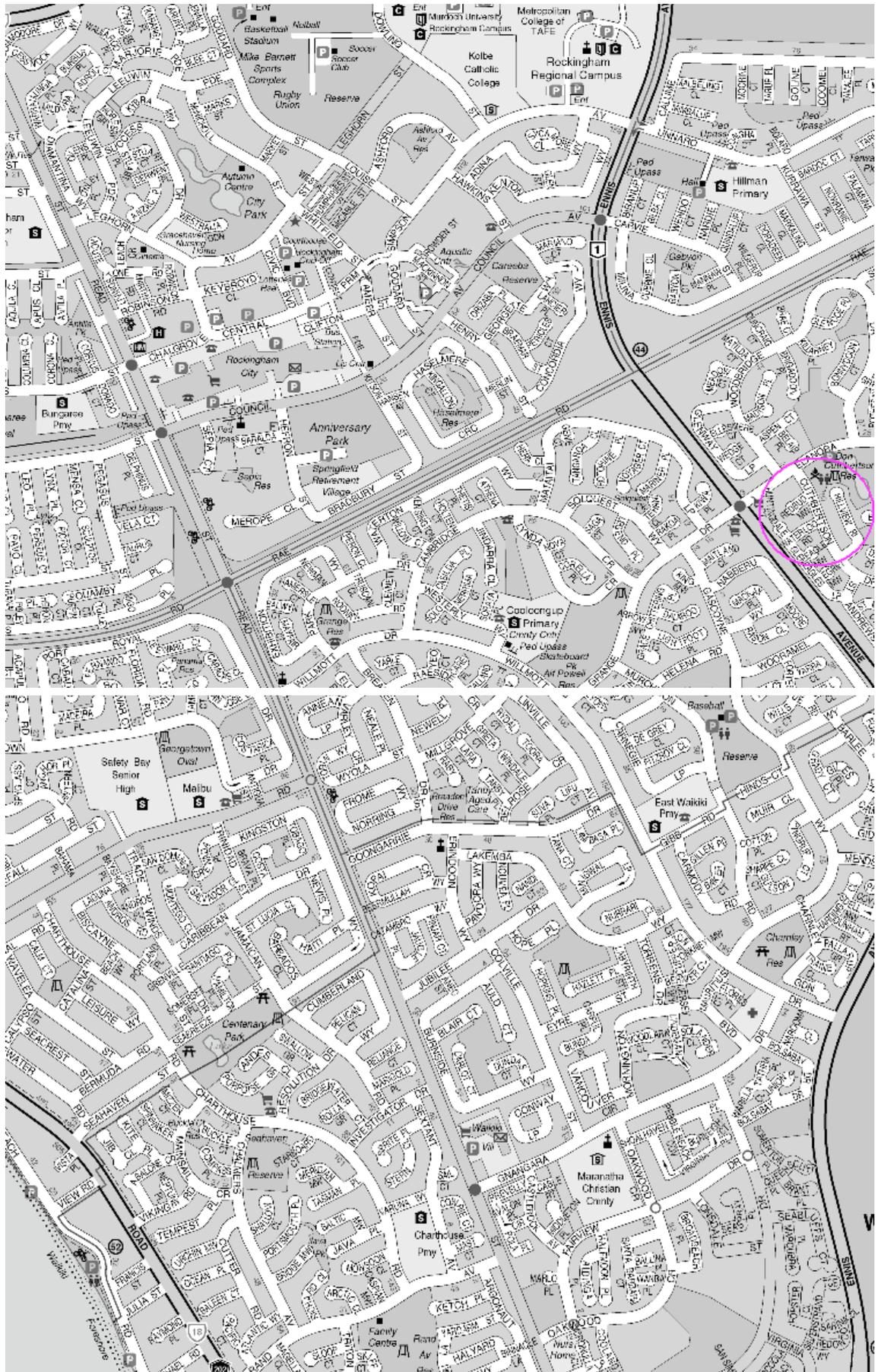
D2

1. Nicholson Road
2. Abernethy Road

--

Randomly Selected Street

Reference Map 581 Source for Randomly Selected Blocks



Streets Within the Bounds of Randomly Selected Blocks, Reference Page 581

E1	3. Oregon Place
1. Gilmore Avenue	D6
2. Cessford Close	1. Mandurah Road
3. Gun Court	2. Millar Road West
4. Karlak Close	A9
5. Dalrymple Drive	1. Cuthbertson Drive
6. Kongal Heights	2. Birdie Court
7. Bilya Gardens	3. Caddy Close
8. Gimbon Garden	4. Link Way
9. Perham Court	5. Club Place
10. Werloo Court	6. Flag Court
11. Djilba View	7. Bunker Court
12. Proctor Gardens	D9
13. Fuge Lane	1. Mandurah Road
14. Whitbread Way	2. Kerosene Road
15. Creen Court	
16. Greydon Green	
A7	
1. Timberlane Loop	
2. Maplewood Place	
	Randomly Selected Street

Appendix F

Distribution of Returned Surveys by Postcode and Suburb

Post Code	Suburb	Freq	%	Post Code	Suburb	Freq	%
0000	Unknown	7	2.2	6104	Belmont	2	0.6
6000	Perth	9	2.9	6105	Kewdale	1	0.3
6003	Highgate	1	0.3	6107	Cannington	13	4.2
6007	Leederville	1	0.3	6108	Thornlie	16	5.2
6008	Subiaco	4	1.3	6110	Gosnells	5	1.6
6011	Cottesloe	4	0.3	6111	Kelmscott	1	0.3
6012	Mosman Park	2	0.6	6147	Langford	25	8.1
6017	Osborne Park	1	0.3	6148	Shelly	9	2.9
6018	Doubleview	3	1.0	6149	Bull Creek	2	0.6
6019	Scarborough	1	0.3	6151	South Perth	5	1.6
6020	North Beach	1	0.3	6152	Manning	8	2.6
6023	Duncraig	2	0.6	6153	Brentwood	7	2.3
6024	Greenwood	4	1.3	6154	Myaree	2	0.6
6026	Kingsley	2	0.6	6155	Canning Vale	27	8.7
6027	Beldon	1	0.3	6157	Bicton	1	0.3
6050	Coolbinia	2	0.6	6158	E Fremantle	2	0.6
6051	Maylands	2	0.6	6159	N Fremantle	2	0.6
6052	Bedford	3	1.0	6160	Fremantle	23	7.4
6053	Bayswater	8	2.6	6162	S Fremantle	2	0.6
6054	Ashfield	3	1.0	6163	Coolbellup	6	1.9
6055	West Swan	1	0.3	6164	South Lake	12	3.9
6056	Midland	1	0.3	6167	Kwinana	3	1.0
6057	Maida Vale	3	1.0	6168	Rockingham	9	2.9
6058	Forrestfield	5	1.6	6169	Warnbro	17	5.5
6059	Dianella	4	1.3	6172	Port Kennedy	9	2.9
6060	Joondanna	5	1.6	6173	Secret Harbour	1	0.3
6061	Mirrabooka	2	0.6	6175	Singleton	1	0.3
6062	Embleton	5	1.6	6282	Yallingup	1	0.3
6076	Kalamunda	5	1.6	6302	Badgin	1	0.3
6101	Carlisle	3	1.0	6330	Albany	2	0.6
6103	Rivervale	1	0.3	6616	Latham	1	0.3

Appendix G

Missing data by case across instruments used in studies

Num Cases	ECR-R	PDQ	DASS	NOS	MOPS Mother	MOPS Father	RQ
1.					2	2	
2.						7	9
3.	13	13	13	13		13	13
4.							17
5.		31	31				
6.					34		
7.				35			
8.							40
9.							41
10.	43						43
11.					54		
12.							63
13.	71						
14.	73						
15.							75
16.	118						
17.							119
18.	123				123		123
19.	137	137					
20.					141		
21.			147		147	147	147
22.							168
23.	173		173	173	173	173	
24.				184			
25.							186
26.							187
27.	194						
28.	196		196	196	196	196	196
29.							200
30.							202
31.	238						
32.						246	
33.				253			
34.	257						257
35.	259					259	
36.							260
37.	265						
38.		271					271
39.				277		277	

Script for Random Selected Residences

Good morning/afternoon/evening my name is Darryl Milovchevich and I'm a Post Graduate student from Curtin University.

I was wondering if you have a few moments for me to tell you about the research I am conducting and see if you would like to be involved?

IF NO

Sorry for any inconvenience. Have a nice day.

IF YES

Thankyou for your time. As you are probably aware the federal government and states have been recently talking about health services in particular services for people who are experiencing emotional stress. Some people find it hard to talk to people when they have an emotional problem. My research tries to understand why some people find it easy to talk to someone while others find it more difficult.

I would like to ask people 18 years and over from the general community questions regarding their family experiences, their current emotional health, and thoughts about talking to people when they are feeling low or have a problem.

If you agree to help in this research I will ask you to fill in a survey form that will take between 20 and 40 minutes to fill in. The survey will ask you to think about how you see yourself and other people, what you do when you have problem and some health questions that will include questions on your mood, anxiety and stress.

There will also be some questions about your memories of your parents parenting when you were a child.

This can sometimes be thought as private by some people. Should you feel this way it is OK not to participate in the study.

Your participation in this study is entirely voluntary and you are free to withdraw at any stage from all or part of the study.

If you decide to participate in the study your survey form can either be picked up by the researcher or mailed in the return addressed envelope provided.

Should you wish to discuss the research project further we can talk further when I return to pick up the survey or I can be contacted on the telephone number provided on the information sheet. Furthermore you can request further contact by selecting an option on the contact sheet. These contact details will be separated from the survey form to ensure your anonymity. These contact details are kept in a secure place at Curtin only for that purpose and will be destroyed after 6 months once data has been analysed.

Some people may be feeling low at the moment or answering questions in the survey might result in feeling low. If you are feeling low there is information on the survey cover of places you can ring. It is also recommended that people consult their local doctor. I will also be available to provide you with information on a range of places that you could consider should you wish to talk to someone.

Some people can feel low but choose not ask for support for a variety of reasons we encourage you to contact the research team for further information on people in the local community you can talk to or use contacts provided on the information form. Contacting someone to talk about low feelings can help in resolving both a persons feelings and problems we all commonly can experience.

Your information and responses will be treated in the strictest confidence and will not identify you at any time ensuring your confidentiality. There are no consequences for not participating in the study. If you decide to participate in this study your information will be used to better our community's services to people in need.

Do you have any further questions?

Following completion of the Questionnaire (if possible)

If wanting to talk

Thankyou for completing the survey. Would you like to discuss some part of the research or the questionnaire?

Or if distressed

It seems that this survey may have resulted in you having some feelings?

Or if the opportunity to provide encouragement

Thankyou for participating in the survey. Just to remind you that If you are feeling low there is information on the survey cover of places you can ring. It is also recommended that people consult their local doctor. I will also be available to provide you with information on a range of places that you could consider should you wish to talk to someone.

Ethical Considerations

Informed consent: Each potential participant will be given both verbal and written information regarding the research, their rights and how confidential information will be treated to ensure the privacy of participants. An information sheet will be posted to each participant with contact details of the researcher and the university. Furthermore each participant will be given a contact form giving permission for the researcher to contact them further regarding their responses, the research outcomes and issues they wish to discuss further. Participants providing the researcher with consent for further contact will be provided with referral services available in their local community

Confidentiality: The participants will be guaranteed confidentiality and anonymity and that their responses will not identify them in any way. Participants will be advised both verbally and in written form that their involvement in the study will be entirely voluntary and that they will be allowed to discontinue at any stage of the data collection process without penalty or prejudice.

Facilities: Computer, Photocopying, and office will be provided by Curtin University Psychology Department. Likewise production costs of the questionnaire will be covered by Curtin University, Psychology Department.

Data Storage: All information collected from participants will be completely confidential and data will be stored in a locked cabinet at the university under university guidelines (regulated by the Privacy Act, 1988).

Dissemination of Results.: The dissemination of research findings will be conducted under university guidelines and protocols ensuring the confidentiality of participants and integrity of both the University and the data.

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Appendix J

Instrument Subscale Tallies

Participant responses to instruments were totalled into subscale scores.

Experiences in Close Relationships Questionnaire Revised (ECR-R) Anxiety (F2, 7, 11, 13, 16, 19, 20, 22, 24, 25, 26, 28, 29, 30, 32, 33, 35, 36) and Avoidance (F1, 3, 4, 5, 6, 8, 9, 10, 12, 14, 15, 17, 18, 21, 23, 27, 31, 34).

Personal Description Questionnaire (PDQ) Femininity Positive (G1, 4, 9, 11, 18, 24, 25, 29, 32, 39), Femininity Negative (G3, 7, 10, 16, 17, 21, 22, 27, 28, 38), Masculinity Positive (G2, 13, 14, 15, 20, 26, 33, 34, 37, 40) and Masculine Negative (G5, 6, 8, 12, 19, 23, 30, 31, 35, 36)

Depression Anxiety & Stress Scale (DASS) Depression (H2, 3, 6, 9, 11, 13, 17), Anxiety (H1, 4, 8, 12, 14, 18, 21) AND Stress (H5, 7, 10, 14, 15, 19, 20). The scores for positive and negative values of both masculine and feminine subscales were combined to create total masculine (MAS) and feminine (FEM) scores.

Network Orientation Scale (NOS)(J1-20).

Measure of Parenting Style (MOPS) Father Indifference (K5, 8, 10, 11, 12, 13), Over-control (K1, 3, 4, 6) and the experience abuse (K2, 7, 9, 14, 15), Mother Indifference (L5, 8, 10, 11, 12, 13), Over-control (L1, 3, 4, 6) and the experience abuse (L2, 7, 9, 14, 15).

Breadth of Emotional Support. Participants were asked to identify people (from an extensive list) that they would talk to concerning a problem (relationship difficulty/break up, unemployment or personal crisis) or experiencing feelings of

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sadness or depression. The total number of people identified was aggregated to provide a measure of participant emotional support network breadth.

The total list was broken down into the following sub groups who provide emotional support.

Family (I1, 6, 9, 10, 11, 12, 19, 24, 29)

Partner (I17)

Friends (I5, 7, 8, 15, 16)

General Medical (I3, 25, 28)

Psychology/Counselling Services (I2, 13, 26)

General Community (I4, 14, 18, 20, 21, 23, 27)

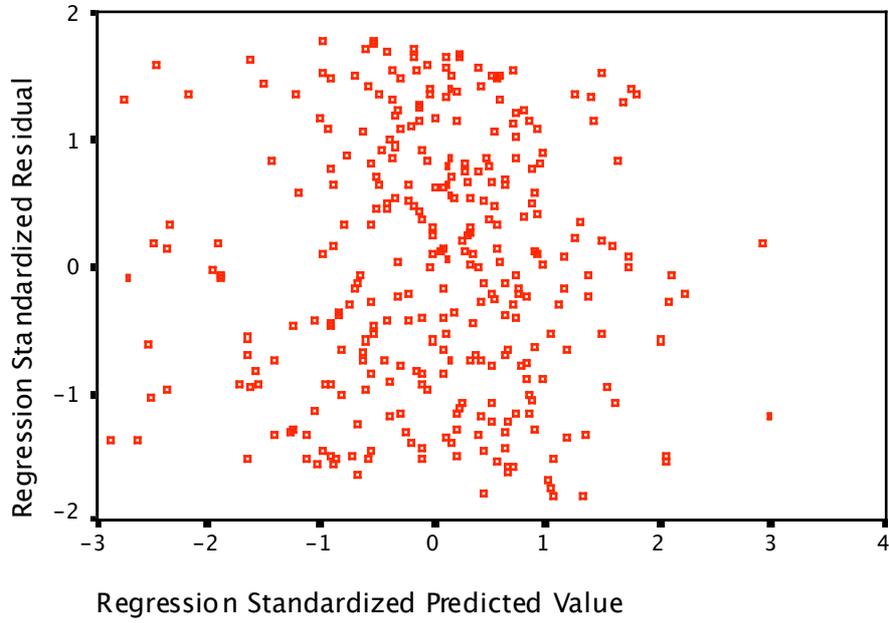
Stranger (I22)

Other (I30)

Appendix K

Scatterplot ECR-R

Dependent Variable: ID



Information Sheet

Thank you for considering to participate in this study. This survey explores the relationship between what people's relationship with parents, your current emotional health and how many people around you that can help you when they have a problem. This study investigates factors that influence the types of emotional support people seek out when they are low. This is especially true for people who hold strong values about 'holding things in' and believe that it's wiser not to share problems with friends, family and caring professionals in the community. Your completed survey will be used to better our community's services to people in need.

How you got selected

In this study people have been randomly selected from all over Perth and asked to fill in the attached questionnaire which is expected to take 25-45 minutes. The survey includes questions related to family life experiences, emotional health, values, and the type of people that provide you with emotional support. Your responses will be separated from any identifying information will be stored at Curtin University for five years, accessible only by the research team and used to publish scientific literature. Publications will focus on how the topics may be related and not on individual responses.

Participation Voluntary & Confidential

Your participation in this study is voluntary and you are free to withdraw at any stage from the study. Your consent to participate is assumed in your return of the survey.

Please keep this information sheet and do not place your name on any part of the survey.

A contact form has been included if you would like further information concerning or if you feel that you would like to discuss your responses to the questionnaire and information on support services in your community.

Your thoughts and Feeling after the Survey

Sometimes the sharing of information regarding our experiences can make us feel strong emotions. If you feel that you need to speak to someone regarding your feelings we have included some contact phone numbers in your local community. We encourage you to discuss your thoughts and feelings with a trusted person or professional as this can assist in reducing distress and resolve problems.

For Web Based Information
Beyond Blue
www.beyondblue.org.au

Local Support Numbers	
Lifeline	13 11 14
Crisis Care	9223 1111
Samaritans	9381 5555

If you require any information regarding this study or it's results the researcher can be contacted on the following number **0404296974** or Professor Brian Bishop **92667181**

Yours Sincerely

Darryl Milovchevich
Principle Researcher

This study has been approved by the Curtin University Human Research Ethics Committee.

If needed, verification of approval can be obtained either by writing to the Curtin University Human Research Ethics Committee, c/- Office of Research & Development, Curtin University of Technology, GPO Box U1987, Perth, 6845 or by telephoning **9266 2784**.

Contact Form

The following form is intended to provide you with the option, should you desire, for further contact with the research team for information regarding the study, it's results and/or information of support services in your local community.

Your contact information will be separated from the survey form to ensure that your responses remain anonymous and will be destroyed once the data is analysed.

I am interested in being contacted after the completion of my survey

For further information regarding the project and results

For further information regarding caring professionals in the community that I can talk to.

If you wish to be contacted regarding any of the above issues please choose a preferred method of contact and preferred time of contact.

You will be contacted as soon as possible by the researcher.

Your First Name

Contact by Phone

Number

Preferred
Contact Time

Contact by Fax

Number

Contact by Email

Address

Contact by Mail

Address

Demographic Questions

Participant Code

A. Current Employment

- Employed full-time 1
- Employed part-time 2
- Retired. 3
- Full time Student 4
- Home duties. 5
- Unemployed/
On Government
Benefits 7

Year of Birth

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------

Female

<input type="text"/>

1

Male

<input type="text"/>

2

Your Postcode

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------

B. Cultural identity

These questions relate to the cultural group that you identify with

- | | |
|--|--|
| <input type="radio"/> Asian 1 | <input type="radio"/> Middle Eastern 6 |
| <input type="radio"/> Anglo Australian 2 | <input type="radio"/> African 7 |
| <input type="radio"/> Aboriginal & Torres Straight Islanders 3 | <input type="radio"/> South American 8 |
| <input type="radio"/> Eastern European 4 | <input type="radio"/> North American 9 |
| <input type="radio"/> West European 5 | <input type="radio"/> Other 10 |

C. Accommodation

Where you live at the moment?

- Living **Alone** 1
- Living with your **Parents/Family** 2
- Living with **Friends/Shared House.** 3
- Living with your **Partner.** 4
- Living with **Partner & Children.** 5
- Living **Alone with your Children.** 6

D. Education

How much of school did you complete?

- Primary School 1
- Secondary (Up to Year 10) 2
- Upper Secondary (Years 11 & 12) 3

E. Family Life

With whom did you spend most of your childhood before 15 years of age?

- Mum and Dad 1
- Mum 2
- Dad 3
- Mum & Step Dad 4
- Dad & Step Mum 5

9.

This task asks you to describe yourself. Below is a list of personality characteristics. Please use these characteristics to describe yourself. Indicate on a scale from 1 to 5 how true of you these various characteristics are. Please do not leave any characteristics unmarked.

1 Never or almost never true. **2** Sometimes but not often true **3** Occasionally true. **4** Often true. **5** Always or almost always true.

1. Loves Children	1	2	3	4	5
2. Firm	1	2	3	4	5
3. Dependant	1	2	3	4	5
4. Patient	1	2	3	4	5
5. Bossy	1	2	3	4	5
6. Noisy	1	2	3	4	5
7. Needs Approval	1	2	3	4	5
8. Shows off	1	2	3	4	5
9. Appreciative	1	2	3	4	5
10. Nervous	1	2	3	4	5
11. Sensitive to the needs of others	1	2	3	4	5
12. Aggressive	1	2	3	4	5
13. Confident	1	2	3	4	5
14. Competitive	1	2	3	4	5
15. Casual	1	2	3	4	5
16. Timid	1	2	3	4	5
17. Self-critical	1	2	3	4	5
18. Grateful	1	2	3	4	5
19. Sarcastic	1	2	3	4	5
20. Forceful	1	2	3	4	5
21. Weak	1	2	3	4	5

1 Never or almost never true. **2** Sometimes but not often true **3** Occasionally true. **4** Often true. **5** Always or almost always true.

22.	Bashful	1	2	3	4	5
23.	Mischievous	1	2	3	4	5
24.	Responsible	1	2	3	4	5
25.	Emotional	1	2	3	4	5
26.	Skilled in business	1	2	3	4	5
27.	Shy	1	2	3	4	5
28.	Anxious	1	2	3	4	5
29.	Devote self to others	1	2	3	4	5
30.	Feels superior	1	2	3	4	5
31.	Boastful	1	2	3	4	5
32.	Loyal	1	2	3	4	5
33.	Strong	1	2	3	4	5
34.	Carefree	1	2	3	4	5
35.	Rude	1	2	3	4	5
36.	See self as running the show	1	2	3	4	5
37.	Outspoken	1	2	3	4	5
38.	Worrying	1	2	3	4	5
39.	Gentle	1	2	3	4	5
40.	Pleasure-seeking	1	2	3	4	5

(Used with permission Antill, Cunningham, Russell & Thompson)

Below is a list of personality characteristics. Please use these characteristics to describe yourself. Indicate on the scale (from 1 – 5) how true of you each of these characteristics are by circling the number.

1 **2** **3** **4** **5**
 Strongly Disagree Unsure. Agree. Strongly
 disagree.

1. I prefer not to show my partner how I feel deep down.	1	2	3	4	5
2. Sometimes romantic partners change their feelings about me for no apparent reason.	1	2	3	4	5
3. I find it difficult to allow myself to depend on romantic partners.	1	2	3	4	5
4. My partner really understands me and my needs.	1	2	3	4	5
5. It's not difficult for me to get close to my partner	1	2	3	4	5
6. I prefer not to be too close to romantic partners.	1	2	3	4	5
7. It makes me mad that I don't get the affection and support I need from my partner.	1	2	3	4	5
8. I find it relatively easy to get close to my partner.	1	2	3	4	5
9. I don't feel comfortable opening up to romantic partners.	1	2	3	4	5
10. I usually discuss my problems and concern with my partner.	1	2	3	4	5
11. I rarely worry about my partner leaving me.	1	2	3	4	5
12. I tell my partner just about everything.	1	2	3	4	5
13. I often worry that my partner doesn't really love me.	1	2	3	4	5
14. I am nervous when partners get too close to me.	1	2	3	4	5
15. I feel comfortable depending on romantic partners.	1	2	3	4	5
16. I often wish that my partner's feelings for me were as strong as my feelings for him or her.	1	2	3	4	5
17. It's easy for me to be affectionate with my partner.	1	2	3	4	5
18. I am very comfortable being close to romantic partners.	1	2	3	4	5
19. I'm afraid that I will lose my partner's love.	1	2	3	4	5
20. My desire to be close sometimes scares people away.	1	2	3	4	5
21. I talk things over with my partner.	1	2	3	4	5
22. I worry that romantic partners won't care about me as much as I care about them.	1	2	3	4	5
23. I find it easy to depend on romantic partners.	1	2	3	4	5
24. I worry a lot about my relationships.	1	2	3	4	5

25. When my partner is out of sight, I worry that he or she might become interested in someone else.	1	2	3	4	5
26. When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.	1	2	3	4	5
27. It helps to turn to my romantic partner in times of need.	1	2	3	4	5
28. My romantic partner makes me doubt myself.	1	2	3	4	5
29. I do not often worry about being abandoned.	1	2	3	4	5
30. I find that my partner(s) don't want to get as close as I would like.	1	2	3	4	5
31. I feel comfortable sharing my private thoughts and feelings with my partner.	1	2	3	4	5
32. I often worry that my partner will not want to stay with me.	1	2	3	4	5
33. I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.	1	2	3	4	5
34. I get uncomfortable when a romantic partner wants to be very close.	1	2	3	4	5
35. I worry that I won't measure up to other people.	1	2	3	4	5
36. My partner only seem to notice me when I am angry.	1	2	3	4	5

...

For each of the statements below please tick the number that best indicates how much the statement applied to you **DURING A TYPICAL WEEK IN THE LAST WEEK**. There are no right or wrong answers. Do not spend too much time on any one statement.

- | | | | |
|---|--|--|---|
| 0
Did not apply to me at all. | 1
Applied to me to some degree, or some of the time. | 2
Applied to me a considerable degree, or a good part of the time. | 3
Applied to me very much, or most of the time. |
|---|--|--|---|

1. I was aware of dryness of my mouth.	0	1	2	3
2. I felt that I had nothing to look forward to.	0	1	2	3
3. I felt that life was meaningless.	0	1	2	3
4. I felt close to panic.	0	1	2	3
5. I felt that I was using a lot of nervous energy.	0	1	2	3
6. I couldn't seem to experience any positive feelings at all.	0	1	2	3
7. I tended to overreact to situations.	0	1	2	3
8. I was aware of the action of my heart in the absence of physical exertion (eg sense of heart rate increase, heart missing a beat)	0	1	2	3
9. I felt down hearted and blue.	0	1	2	3
10. I found myself getting agitated.	0	1	2	3
11. I found it difficult to work up the initiative to do things.	0	1	2	3
12. I was worried about situations in which I might panic and make a fool of myself.	0	1	2	3
13. I felt I wasn't worth much as a person.	0	1	2	3
14. I felt scared without any good reason.	0	1	2	3
15. I found it hard to wind down.	0	1	2	3
16. I found it hard to relax.	0	1	2	3
17. I was unable to become enthusiastic about anything.	0	1	2	3
18. I experienced breathing difficulty (eg excessively rapid breathing, breathlessness in the absence of physical exertion).	0	1	2	3
19. I was intolerant of anything that kept me from getting on with what I was doing.	0	1	2	3
20. I felt that I was rather touchy.	0	1	2	3
21. I experienced trembling (eg in the hands).	0	1	2	3

<input type="checkbox"/>

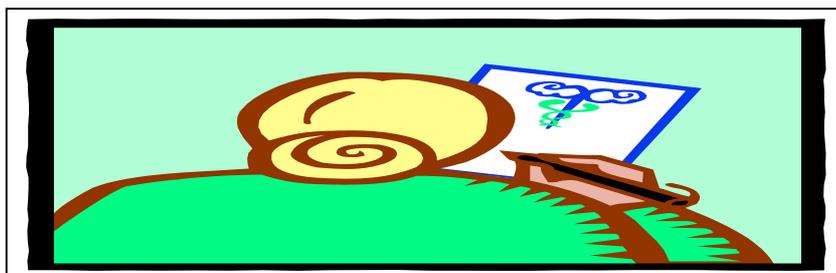
(Used with permission Lovibond & Lovibond)

Total			
Total X 2	D	A	S

I. People I would talk to about a problem

Life often has times that are hard and we can feel very low, sad and depressed. Take a moment to think of a time that this may have been the case for you, it could have been a relationship difficulty/break up, a time of unemployment or a personal crisis. Please **tick all** of the **people** that you talked to and received **emotional support**.

1. Aunty		16. Boss/supervisor	
2. Counsellor/Therapist		17. Partner	
3. Local Doctor		18. Teacher/Lecturer	
4. Youth Worker		19 Mother	
5. Work Mate		20 Priest	
6. Grand Mother		21 A Helper/volunteer	
7. Friend		22 Stranger	
8. A second Friend		23 Nun	
9. Sister/Brother		24 Uncle	
10. A second Sister/Brother		25 Nurse	
11. Cousin		26 Psychiatrist	
12. Grand Father		27 Telephone Counsellor	
13. Psychologist		28 Hospital Staff	
14. Social Worker		29 Father	
15. Neighbour		30 Other Person/service	



J.

Below is a list of statements concerning relationships with other people. Please indicate the extent to which you agree or disagree with each statement. (using the scale below, tick the box corresponding to each statement. Please do not leave any item unmarked.

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Sometimes it is necessary to talk to someone about your problems.	1	2	3	4
2. Friends often have advice to give.	1	2	3	4
3. You have to be careful who you tell personal things to.	1	2	3	4
4. I often get useful information from other people.	1	2	3	4
5. People should keep their problems to themselves.	1	2	3	4
6. It is easy for me to talk about personal and private matters.	1	2	3	4
7. In the past, friends have really helped me out when I've had a problem.	1	2	3	4
8. You can never trust people to keep a secret.	1	2	3	4
9. When a person gets upset they should talk it over with a friend.	1	2	3	4
10. Other people understand my problems.	1	2	3	4
11. Almost everyone know someone they can trust with a personal secret.	1	2	3	4
12. If you can't figure out your problems, nobody can.	1	2	3	4
13. In the past, I have rarely found other people's opinion helpful when I have a problem.	1	2	3	4
14. It really helps when you are angry to tell a friend.	1	2	3	4
15. Something's are too personal to talk to anyone.	1	2	3	4
16. It's fairly easy to tell who you can trust, and who you can't.	1	2	3	4
17. In the past, I have been hurt by people I confided in.	1	2	3	4
18. If you confide in other people, they will take advantage of you.	1	2	3	4
19. It's OK to ask favours of people.	1	2	3	4
20. Even if I need something, I would hesitate to borrow it from someone.	1	2	3	4

(Used with permission Vaux, Burda & Stewart)

R.

From your memories of child hood (1st 16 years) how 'true' are the following statements about how you're **FATHER/ STEP FATHER/ MALE CAREGIVER** behaved towards you.

	Not true for me at all	Slightly true for me	Moderately true for me.	Extremely true for me
1. Overprotective of me.	1	2	3	4
2. Verbally abusive of me.	1	2	3	4
3. Over-controlling of me.	1	2	3	4
4. Sought to make me feel guilty.	1	2	3	4
5. Ignored me.	1	2	3	4
6. Critical of me.	1	2	3	4
7. Unpredictable towards to me.	1	2	3	4
8. Uncaring towards me.	1	2	3	4
9. Physically violent or abusive of me	1	2	3	4
10. Rejecting of me.	1	2	3	4
11. Left me on my own a lot.	1	2	3	4
12. Would forget about me.	1	2	3	4
13. Was uninterested in me.	1	2	3	4
14. Made me feel in danger.	1	2	3	4
15. Made me feel unsafe.	1	2	3	4

(Used with permission Psychological Medicine, University Press and G Parker)



L.

From your memories of child hood (1st 16 years) how 'true' are the following statements about how you're **MOTHER/ STEP MOTHER/ FEMALE CAREGIVER** behaved towards you.

	Not true for me at all	Slightly true for me	Moderately true for me.	Extremely true for me
1. Overprotective of me.	1	2	3	4
2. Verbally abusive of me.	1	2	3	4
3. Over-controlling of me.	1	2	3	4
4. Sought to make me feel guilty.	1	2	3	4
5. Ignored me.	1	2	3	4
6. Critical of me.	1	2	3	4
7. Unpredictable towards to me.	1	2	3	4
8. Uncaring towards me.	1	2	3	4
9. Physically violent or abusive of me	1	2	3	4
10. Rejecting of me.	1	2	3	4
11. Left me on my own a lot.	1	2	3	4
12. Would forget about me.	1	2	3	4
13. Was uninterested in me.	1	2	3	4
14. Made me feel in danger.	1	2	3	4
15. Made me feel unsafe.	1	2	3	4

(Used with permission Psychological Medicine, University Press and G Parker)

VI.

Read each of the four self-descriptions below rating each on how closely each describes you and your contact with other people.

Then select a statement that best describes how you usually act and feel or comes nearest to describing you ticking one box to the right of that statement.

It is easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don't worry about being alone or having others not accept me.

1

1	2	3	4	5
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Not at all like me A little like me Somewhat like me Very like me Extremely like me

I want to be completely emotionally intimate with others, but often find that others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.

2

1	2	3	4	5
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Not at all like me A little like me Somewhat like me Very like me Extremely like me

I am uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I worry that I will be hurt if I allow myself to become too close to others.

3

1	2	3	4	5
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Not at all like me A little like me Somewhat like me Very like me Extremely like me

I am comfortable without close emotional relationships. It is very important to me to feel independent and self sufficient, and I prefer not to depend on others or to have others depend on me.

4

1	2	3	4	5
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Not at all like me A little like me Somewhat like me Very like me Extremely like me

(Used with permission Bartholomew & Horowitz)

Thank you for your time, patience and effort in filling in this questionnaire and contributing to better understanding how we can better help people in need.