

**PERSONALITY PATHOLOGY AND ADULT ATTACHMENT
IN FEMALE OFFENDERS**

by

Susan D. Turnbull

M.Sc., Simon Fraser University, 1988

**THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY**

in the Department
of Psychology

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SIMON FRASER UNIVERSITY

July 1996

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Personality Pathology and Adult Attachment in

Female Offenders

Author:

(signature)

Susan Diane Turnbull

(name)

(date)

Aug. 1/96

APPROVAL

Name: Susan D. Turnbull

Degree: Doctor of Philosophy

Title of Dissertation: Personality Pathology and Adult Attachment in Female Offenders

Examining Committee:

Chairperson: Dr. Christopher C. M. Davis

Dr. Ronald M. Roesch
Senior Supervisor

Dr. Stephen D. Hart

Dr. James K. P. Ogloff

Dr. Marlene M. Moretti
Department of Psychology
Simon Fraser University
Internal Examiner

Dr. Richard L. Wiener
Psychology and Public Policy Program
St. Louis University
External Examiner

Date Approved: July 30, 1996

ABSTRACT

Most correctional research to date has focused on male offenders, leading to concerns about the adequacy of existing facilities and programs for the smaller number of women who find themselves in the prison system. Previous research suggests that optimal programming decisions for incarcerated women will be based on research on female rather than male offenders. The present research considered two domains, personality pathology and relational characteristics, with the potential to provide information for improving correctional programming decisions for women.

Consistently higher rates of personality disorder have been reported for female offenders than for women in the general population. A number of authors, many of them feminist in orientation, have suggested the importance of connections to others in female development. Fifty female offenders, including federally and provincially sentenced, remanded, and immigration-hold inmates, were interviewed using the Dimensional Assessment of Personality Pathology-Interview Version. Attachment styles were evaluated using the Relationship Questionnaire and the Relationship Scales Questionnaire. Scores on the Psychopathy Checklist: Screening Version were also obtained for each participant. Results indicated there were high levels of personality pathology in the sample, especially on the Impulsive Stimulus Seeking and Liability factors. Rates of insecure attachment were also high, especially for the Fearful and Dismissing styles. Scores on the interpersonal and affective component of the psychopathy measure were low relative to those on the behavioural component of this

measure. Redundancy between the personality and attachment measures was low, suggesting that the attachment measures were contributing unique information over and above that provided by the personality measure. Relationships between the sets of personality and attachment variables were examined, and implications of the present findings for correctional programming for women were discussed.

ACKNOWLEDGMENTS

I am indebted to many individuals who generously offered various forms of support while I completed my research. My committee members offered me a great deal of encouragement and assistance, and my thanks go to each of them. In particular, Dr. Ron Roesch has been a long-standing source of personal and academic support and I am very grateful to have had the opportunity to work with him, and Dr. Stephen Hart was a generous and positive guide for me in my labours. Dr. Jim Ogloff, Dr. Bill Koch, and Dr. David Crockett were also formative influences on my research and my warmest thanks go to them. My fellow founding JARS (Jordan Hanley, Angela Haig, and Rebecca England) were there to provide motivation and morale when my own faltered, and to help me celebrate various markers as I worked to complete my research. Rebecca England in particular has been a valued steady companion along the dissertation trail, and I am very grateful to have come to find her among those I consider my friends.

A number of individuals provided various forms of technical and administrative support which were vital to the success of this research project. Beverly Roest, the former Program Director at BCCW, was invaluable in creating the physical and interpersonal space required for me to work in her institution, as were a number of other administrative and front line BCCW staff, particularly Debbie Hawboldt. Shirley Wong and especially Dr. Kerry Jang went to great efforts to help me obtain crucial materials related to the DAPP-IV. Dr. Elaine Scharfe was very generous in providing

materials, data, and information I required for my use of the RQ and RSQ. Joan Foster shared extremely helpful expertise in the use of BMDP statistical programs, and Elizabeth Michno was similarly generous with her knowledge of various computer software packages. Lorie Tarcea has been an ongoing source of administrative support during my time in the Psychology Department, and has smoothed many a formidable paperwork trail. Joan Wolfe provided formatting assistance which went far above the call of any conceivable duty she might have had to a distressed graduate student, generously offering her own time to help eliminate some significant word processing difficulties. Jocelyn Lessard took time out of her own busy schedule to provide me with reliability checks on the DAPP-IV and the PCL:SV. My warmest thanks and gratitude go to all of these people.

I am also extremely grateful to the family and friends who form my own attachment system, without whom my sense of self and my abilities to work and love would be much depleted. I can only look around myself at those I cherish with a profound sense of the richness of my relational life, and a gratitude for this wealth which goes beyond words. My love and thanks to each one of you.

Finally, and in a number of ways most importantly, my deepest thanks go to the women at BCCW who chose to participate in my research project by generously sharing their experiences with me. Obviously, this work would not exist without them.

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INTRODUCTION

According to a recent Correctional Service of Canada publication, there are approximately 300 women serving federal sentences (i.e., sentences greater than or equal to two years) at any given time in Canada (Leblanc, 1994). The number of women serving provincial sentences (i.e., sentences less than two years) is substantially larger: approximately 13,500 sentenced and 8,500 remanded women passed through provincial or territorial prison gates in 1991 (Shaw, 1994). These numbers are small compared to the figures for men. Although female criminality has been increasing in recent years (e.g., Baskin & Sommers, 1990, reported that the number of adult women being held in local jails in the United States increased from 15,652 to 23,796, or by 53%, between 1983 and 1987), and there is some indication that female offenses are becoming increasingly serious (e.g., Epperson, Hannum, & Datwyler, 1982), currently women comprise only 9% of provincial and 2% of federal inmates in Canada (Shaw, 1994). Only 17% of all individuals charged with a criminal offence in Canada during 1992 were female, including both adults and juveniles (Bonta, Pang, & Wallace-Capretta, 1995, citing Statistics Canada, 1994). Because most offenders are male, female offenders historically have been relatively ignored by correctional researchers, policy makers, and program developers.

This relative neglect of female offenders has been increasingly decried by analysts, often feminist in orientation, who are concerned about the inadequacies of

facilities and programs for female prisoners (Connolly, 1983; Dobash & Dobash, 1986; Gelsthorpe, 1989; Hinck, 1989). Hannah-Moffat (1994) briefly presented two strategies which different feminists have promoted for dealing with this inequality. The first involves treating women and men in corrections with formal equality, a strategy which has proven problematic due to limitations in resources and due to a failure to recognize that the standard by which equality has been evaluated is based on a male norm. Thus, even where equality has nominally been achieved, it is possible that women's specific programming needs have remained unmet. The second strategy, based on substantive equality theory, advocates developing different programs for women and men which are designed to meet the specific requirements of these two different groups. In this view, "equality" does not necessarily mean identical programming.

There has been a growing acknowledgment in the last decade or so that the formal equality theory approach of merely extending research and programs which have been designed for males and applying them to females in prison settings is an inadequate and misguided response. Berzins and Cooper (1982), for example, examined the history of female offenders in Canada, chronicling the long-standing pattern of incarcerating women in whatever manner has seemed most convenient to administrators of the male prisons and penitentiaries of the time. They have detailed the problems inherent in the correctional system as it has been applied to women, focusing particularly on the ramifications of a situation in which correctional definitions, methodologies, policies, procedures, needs, and security issues have all been identified for men and then simply

applied without further analysis to women. According to Berzins and Cooper (1982):

History shows us...that (women) have been given the left-overs and hand-me-downs of facilities and programs designed for men; and when nothing has been left over to hand down, a poor imitation of the model, an outmoded version, has been hastily provided, with inferior facilities, less space, fewer programs and at less cost. (p.405)

They outlined their position that, just as frequently blatant (i.e., intentional) inequality has been operating between the male and female systems, problems have also been created by trying to provide “equal” treatment through the formal equality strategy of treating men and women in exactly the same way. They argued that female offenders are qualitatively different from their male counterparts and that different approaches are required to achieve equal outcomes in the two populations. Berzins and Cooper (1982) concluded that at the time of their report the Correctional Service of Canada was still failing to provide adequately for the female inmates in their care.

Berzins’ and Cooper’s (1982) conclusion was essentially echoed eight years later in the Report of the Task Force on Federally Sentenced Women (Correctional Service of Canada, 1990). This report described facilities for federally sentenced women in Canada as inadequate, noting their overly secure nature and poor programming, and also highlighting the isolating effect on women who are incarcerated far from family and friends, the unmet needs of Francophone and Aboriginal women, and the lack of emphasis on rehabilitation and reintegration into communities for women after their release. Further problems included rampant racism, lack of programs for dealing with

abuse histories (which 80% of the 170 out of 203 federal inmates interviewed indicated they had experienced), inadequate substance abuse programs (a problem for 69% of the inmates interviewed), lack of assistance with release planning, inadequate work programs, financial hardship, few and poorly located halfway houses, and maintenance of institutionalized dependency.

Articles in lay publications have also decried the conditions under which female offenders are housed in Canada. A recent article in a Canada-wide magazine, for example, described the despair, anger, and hopelessness experienced by women residing in the Prison for Women at Kingston, Ontario, detailing the oppressive living conditions and noting that 70% of the inmates have an alcohol or drug problem, 40% are functionally illiterate, most have few or no job skills, and 90% of the native women and 80% of the non-native women have been physically or sexually abused (Armstrong, 1991).

Armstrong (1991) also detailed the inequalities in treatment for male and female inmates which have resulted from what she called the "too-few-to-count syndrome" (p.20). One major inequality is created by the fact that the low numbers of female prisoners means that there are few facilities for housing women. As noted above, this results in women generally being located far from family and friends. In addition, although men have a variety of security levels available to them (maximum, medium, and minimum, with increasing freedom and privileges available at each level) and can earn the right to move to less secure levels through good behaviour, there are less options for

women and the focus is simply on punishing problematic behaviour rather than on rewarding good behaviour. Also difficult is that, while men often have female partners on the outside who bring their children to see them, women in prison are usually the sole support for their children and not only are unable to see them because of their distance from them, but often lose custody of them due to their incarceration.

Before reasonable decisions can be made about just what constitutes appropriate programming for women in prison, it is necessary that the characteristics and needs of female offenders themselves are clearly recognized and understood. The position taken here, which will be elaborated on in the discussion which follows, is that two important domains which could fruitfully be explored in order to improve correctional programming decisions for female offenders are: (1) intrapsychic, or personality, variables; and (2) interpersonal, or relational, connections. Briefly, it is suggested that an increased understanding of the personality structures and the relational characteristics (i.e., attachment styles) of female offenders potentially could provide valuable information regarding which types of therapeutic and other specialized programs might best facilitate both a reduction in problems associated with incarceration and an increase in post-release rehabilitation success. Before considering the literature on personality and on relational and attachment issues, a brief review of previous research efforts with female offenders is provided.

A Review of Extant Research on Female Offenders

The literature on female offenders may be divided somewhat roughly into two categories. The first category is essentially theoretical in nature and includes a variety of articles and books reflecting attempts to explain female offending, sociological and feminist critiques of these theories, and associated commentary. The second, although not clearly distinct from the first, is more empirical in nature and focuses on descriptive and hypothesis-testing research. Although these literatures are examined separately in the following discussion, there is clearly a substantial amount of overlap between the two and the distinction is a largely artificial one. In addition, although the literature on prevalence rates of psychopathology in female offenders might reasonably be included in the discussion of empirical research, it has particular relevance for the present work and is thus presented in a separate, third, section.

A Brief Look at the Theoretical Literature on Female Offenders

Intra-individual- and Cultural-Level Analysis

Although female offenders have been a relatively forgotten population in the criminology literature, they have not been completely ignored. Early theorists focused on intra-individual characteristics of women, locating the “problem” in physiognomy or lack of a maternal instinct (Lombroso & Ferrero, 1895, cited in E. K. Sommers, 1995), biology (Thomas, 1923, cited in E. K. Sommers, 1995), poor superego formation (see writings by Freud and his followers for the psychoanalytic position that all women

develop as morally inferior to men, an analysis which curiously overlooks the *lower* rates of their criminal behaviour relative to men), or personality pathology (Glueck & Glueck, 1934, cited in S. S. Simpson, 1989). Contemporary evidence for the lingering influence of biological theories may be found in some researchers' interest in the connection between menstruation and crime, with some authors finding evidence of a link (e.g., d'Orban & Dalton, 1980) and others vehemently denying any connection between ovulatory cycle and deviant behaviour (e.g., Harry & Balcer, 1987). Belief in the causal role of a "lack of maternal instinct," or other evidence of masculinity, may be seen today in research on testosterone levels in female offenders (e.g., Dabbs, Ruback, Frady, Hopper, & Sgoutas, 1988), and in research on gender-role identity (e.g., Bunch, Foley, & Urbina, 1983; Campbell, MacKenzie, & Robinson, 1987; Polcari, 1991).

A recognition of extra-individual, or cultural, factors is implicit in the various forms of role theory which have appeared to explain women's relatively law-abiding nature (e.g., Parsons, 1949, cited in E. K. Sommers, 1995). Klein (1973) explicitly pressed for a consideration of cultural factors, highlighting the role of economic, social, and political conditions in contributing to female criminality. She was followed by Smart (1976), who analyzed the roles of patriarchy and sexism in helping to create, control, and treat female offenders. Adler (1975) and Simon (1975) both acknowledged the role of social forces in a somewhat different way, essentially blaming the women's movement for increases in female crime. Adler (1975) suggested that the women's movement had altered some women's self-images in a way which made them more like men and resulted

in their shift into crime, while Simon (1975) suggested that increased exposure to workplace opportunities for crime was responsible for increasing rates of female criminality. These interpretations of the negative impact of the women's movement have not gone unchallenged (E. K. Sommers, 1995). Many have advocated a more complex analysis which takes into account not only intra-individual (i.e., psychological) factors, but also a range of extra-individual ones such as economic, social, legal, and historical conditions (e.g., Widom, 1981, cited in E. K. Sommers, 1995).

As E. K. Sommers (1995) pointed out, what has seemed reasonable to some in considering female offending (i.e., that increased female criminal behaviour is a result of increased opportunities for crime as women move out of the home and into the workplace in greater numbers) would seem absurd if applied to men. It would appear ludicrous to most to hypothesize that men's lawbreaking is connected to increased workplace opportunities for crime when in fact the opposite has generally been accepted as key, that it is lack of opportunity (i.e., unemployment) which is related to increased criminal activity among males. At the same time, Sommers dismissed poverty as a sole and sufficient explanation of women's crime, noting that women own less property and earn less money than men, yet commit *fewer* rather than *more* crimes than men. She interviewed 14 Canadian female offenders at length to understand these women's own accounting of their criminal behaviour. She found that their explanations considered both internal (i.e., psychological) and external (i.e., systemic, relational, circumstantial, etc.) factors and fell into four main categories: need (including needs for food, medicine,

and other necessities for themselves and their children, and also including emotional need); disconnection and the influence of others (essentially the actual experience of, or the fear of, isolation); visible anger (the women's own anger); and fear (over physical safety). Sommers noted that, in trying to understand their criminal behaviour within the context of their lives, the women she interviewed also acknowledged their own responsibility for their actions. This pattern of describing difficult life circumstances without using such histories to absolve themselves of responsibility for their criminal behaviour was also noted by Hattem (1994) in a report on her interviews of 18 federally incarcerated Canadian women.

Theorists have also focused on a variety of other issues related to female offending, from legal analysis (e.g., Daly, 1987; 1990; Edwards, 1986), to the experiences of Aboriginal women within the justice system (e.g., Faith, Gottfriedson, Joe, Leonard, & McIvor, 1990; Sugar & Fox, 1990), to the impact of class and race on female offense patterns (e.g., S. S. Simpson, 1991), to program recommendations and evaluations (e.g., Atkinson & McLean, 1994; Axon, 1989; Kendall, 1994; Pollack, 1994), to considerations of the relationships between female inmates and their children (e.g., Fessler, 1991; Gwinn, 1992; LeFlore & Holston, 1989; Radosh, 1988; Weintraub, 1987). At the heart of much of this literature is the notion that female offenders differ in substantive ways from male offenders, and require different considerations in handling, housing, treatment, and policy than their male counterparts.

Analysis of the Legal System's Impact

As was just noted, an examination of female offenders has also occurred at a specialized extra-individual level, that of the system which functions to respond to deviant behaviour through legal sanctions. One aspect of the literature on legal analysis is of particular interest here due to the potential ramifications for differences between female and male inmate populations. A number of authors have remarked on the differential treatment which males and females receive within the legal system. Bergsmann (1989) cited statistics which she believes reflect the gender bias and stereotyping extant in the juvenile justice system, noting that although females comprised only 14% of all juveniles in custody in the United States in 1985, they comprised 52% of all status offenders. She attributed this discrepancy to a societal tendency to utilize the courts to enforce standards of moral conduct (especially those involving sexuality) on girls in a way that is not perpetrated against boys. Figueira-McDonough (1985) also examined delinquency rates and judicial responses to young female and male offenders, and concluded that severe treatment of female status offenders is the result of discrimination and that juvenile justice control mechanisms are being used to reinforce traditional female roles.

The view that males and females are treated differently once they enter the justice system is consistent with a finding by Sagatun (1989), who found in a sample of 73 male and 27 female parole officers that female juvenile delinquents were seen as rebelling against traditional norms but that male juvenile offenders were viewed as conforming to

gender norms. Of note, Sagatun (1989) also found that parole officers tended to judge same-sex minors as having lower self-esteem than opposite-sex minors, implying an identification with same-sex minors which may have influenced recommendations and treatment. Given the preponderance of male parole officers in the system, this may contribute to a systematic difference in the treatment of female and male juvenile delinquents. Kruttschnitt (1985) has detailed differences in the handling of adult female versus adult male offenders by parole officers, describing a paternalistic attitude which leads to recommendations for less harsh sentencing for women than men.

Differences have also been reported for the actual judicial sentencing decisions handed down to adult women and men by the courts. Curran (1983) analyzed 543 adult felony cases across three time periods in Dade County, Florida, and found that women were just as likely as men to be offered a plea, to be prosecuted once arrested, and to be convicted, but received more lenient dispositions. Not all analysts have concluded that differences in sentencing favour women, however (e.g., Bergsmann, 1989, and Figueira-McDonough, 1985, cited above). Edwards (1986) has provided a particularly interesting analysis of the judicial response to women who commit “atypical” female crimes, especially violent crimes, noting that breaches of the implicit rules for female conduct are typically reacted to harshly and that the standard by which the justification for violent acts is evaluated is clearly a male one.

Although there is no solid agreement on the nature of differences between how females and males are treated by the legal system, the existence of such differences is a

consistent conclusion. Differential treatment of female offenders by the police, courts, and corrections may contribute to group differences between females and males who ultimately find themselves in prison, over and above existing gender differences in the general population, further emphasizing the need for caution when using research on male prisoners to make decisions about female prisoners.

A Brief Look at the Empirical Literature on Female Offenders

The second category of literature on female offenders is, as noted above, more clearly empirical in nature and has focused on describing who female offenders are and, often, on how they are different from male offenders. Researchers' attention has gradually begun to focus on females in the judicial system at both the adult and the juvenile levels.

Juvenile Female Offenders

Researchers who compare female and male juvenile offenders tend to report both similarities and differences between the two groups. Heckel and Mandell (1981), for example, used factor analytic techniques to compare the demographic and psychological characteristics of 172 male and 87 female juvenile offenders in the United States. They found that although there were a number of similarities between the factorial patterns for females and males, there were also some differences. Heckel and Mandell (1981) identified 10 different factors corresponding to 10 different offender types for females,

including: the expressive offender; the neurotic offender; the high status or advantaged offender; the white middle-class offender; the overindulged, only-child offender; the bright, low-income offender; the emotionally disturbed offender; the counterdependent offender; the crowd-pleasing delinquent; and the unloved, family-conflicted offender.

Six types were identified for males: the expressive offender; the neurotic offender; the advantaged offender; the bright, habitual offender; the offender from a broken home; and the entrepreneurial offender. Although some of the categories were labeled identically, there were also differences between specific categories. For example, the expressive male offender contained a positive loading on friendliness, but this was not the case for the expressive female offender, who was perceived as less likable.

Simourd and Andrews (1994) conducted a meta-analysis of 60 published and unpublished studies over the previous 30 years which compared risk factors for male and female juvenile delinquents. They found that the same general risk factors were important for both females and males. The most important factors for both genders, in descending order, were: antisocial attitudes and peers; temperament or misconduct problems; educational difficulties; poor parent-child relations; and minor personality variables. Yoshikawa (1994) presented a comprehensive review of risk factors for chronic delinquency (both male and female), and identified a number of intra-personal (genetic, sex, perinatal, temperament, cognitive abilities, and school achievement), family-centered (parenting, attachment, child maltreatment, and marital conflict), and contextual (family and community socioeconomic status, and community crime and

violence) factors which interact to contribute to an individual's risk for chronic delinquency.

Some researchers have focused on clearly describing female delinquents rather than on comparing them to their male counterparts. Bergsmann (1989) has provided a profile of typical American juvenile female offenders. According to Bergsmann (1989) they are:

16 years old, live in urban ghettos, are high school dropouts, and are victims of sexual and/or physical abuse or exploitation. Most come from single parent families, have experienced foster care placement, lack of adequate work and social skills, and are substance abusers. Over half of these adolescent females are black or Hispanic.
(p.73)

The difficult life circumstances identified by Bergsmann (1989) have been echoed by other researchers. D. Miller and Trapani (1995) also highlighted the background difficulties faced by juvenile female offenders, including physical and sexual abuse, impairments in social competency, academic and intellectual deficits, and addictions.

The general picture which emerges from the literature on female juvenile offenders is one of multifaceted disadvantage and, relative to males, less serious offending. Poverty, sexual, physical, and emotional abuse, substance abuse, poor skills, and a disrupted family of origin are common circumstances for the majority of young females who find themselves before the juvenile courts. Not surprisingly, this pattern is echoed in the literature on adult female offenders, as is described below.

Adult Female Offenders

Pandemic Difficult Life Circumstances. Widespread disadvantage is certainly a theme in the literature on adult female offenders. The 39 adult female offenders interviewed by Carlen (1988, cited in Baskin & Sommers, 1990), for example, identified poverty, institutional placement outside of the family home during childhood, substance addiction, and quest for excitement as formative in their criminal careers. Daniel and Kashani (1983) described female offenders as suffering high rates of parental separation or loss, marital dissolution, low socioeconomic status, low intelligence, and educational underachievement. Low educational levels have also been associated with lower levels of personal integrity, higher levels of conflict in self-concept, and higher levels of deviance in female offenders (Culbertson & Fortune, 1986).

Robertson, Bankier, and Schwartz (1987) offered a preliminary profile of Canadian adult female offenders based on some limited demographic, social, and psychiatric variables. They interviewed 100 consecutive female pretrial admissions to the Winnipeg Remand Centre to obtain information regarding these variables from the alleged offenders. They summarized a number of descriptive statistics for these female offenders generally and also compared the characteristics of violent and non-violent offenders. They concluded that, contrary to some perceptions that an increasing number of “liberated” women are taking advantage of new crime opportunities becoming open to them (see, e.g., Adler, 1975, and especially Simon, 1975, as noted above), there is no “new female offender,” but that a variety of unfortunate circumstances such as poverty,

early abuse, low education, unemployment, substance abuse, and psychiatric problems continue to be associated with female offenders. A number of authors have considered the prevalence of psychiatric problems in female offenders. However, as noted above, because of its particular relevance for the present work, this literature is considered in a separate section below.

Loucks and Zamble (1994) compared information from a sample of 100 adult female offenders at the federal Prison for Women in Kingston, Ontario, with data from a random sample of male inmates collected eight years earlier. These authors indicated that comprehensive data analyses were not yet ready for publication and presented descriptive figures only, without including statistical comparisons. They reported similarities between the two samples on poverty rates, and on poor educational and employment histories. Women were more likely than men to have attempted suicide (48% versus 13%), to have moderate or higher levels of depression (31% versus 12%), and to report at least moderate drug abuse (54% versus 22%). Men were more likely than women to report at least moderate alcohol abuse (55% versus 26%). Twenty percent of the women and 10% of the men had experienced familial disruption (i.e., adoptive, foster, or institutional placement) before the age of five. For the period from ages 6 to 11, these figures increased to 25% for women and 20% for men.

In summary, then, the literature is rather consistent in portraying female offenders, be they juveniles or adults, as suffering high levels of a variety of unfortunate life circumstances. These difficulties include high rates of: all forms of abuse; familial

disruption in childhood; intellectual and academic deficits; substance abuse; poverty; and psychiatric problems. They also include impoverished self-esteem and low rates of social, academic, and employment competency and attainment. The link between disadvantage and offending, although correlational only, appears to be a strong one.

The findings regarding disadvantage are applicable to all female offenders, but specific categories of female offenders have received a heightened level of empirical attention in the literature. In particular, violent and sexual crimes committed by females have drawn interest, perhaps because of their relative rarity and because they represent the strongest deviation from expected female behaviour.

Violent Female Offenders. A number of researchers have targeted the issue of violence in their work on female offenders. Heilbrun (1982), for example, considered evidence for impulsivity in female crime, comparing impulsivity ratings on 351 female crimes with the norms for male crimes, and found that only violent crimes were more impulsively committed by women than men, and that non-violent crimes committed by women were actually less impulsive than those committed by men. I. Sommers and Baskin (1993) provided a more detailed analysis by distinguishing type of violent crime. They interviewed 65 females convicted of violent street crimes and found that robbery tended to be a planned, impersonal, and instrumental behaviour which was connected to lifestyle, other crime, and drugs, and that assault tended to be impulsive and a function of victim behaviour.

A number of other authors have focused specifically on violent female offenders. Balthazar and Cook (1984), for example, compared 29 violent and 34 non-violent female juvenile delinquents, finding no significant difference between these groups on age, educational level, I.Q., family structure, and geographical location. Despite the non-significant finding, Balthazar and Cook (1984) suggested that family structure was a variable meriting further attention in considerations of violent juvenile behaviour. Although they stated that girls raised in a home in which only the mother was present seemed to be at greatest risk for perpetrating violent acts, an examination of their data which considers sample sizes in each condition actually suggests that “mother only,” “father only,” and “foster care” placements were all problematic as compared to either “mother and father” or “mother and step father” arrangements. This finding is consistent with research noted above which has implicated early family disruption as a frequently occurring significant event in the lives of female offenders.

Jurik and Winn (1990) compared female and male homicide offenders in an examination of what they referred to as “the liberation hypothesis” that females who kill are more similar to men. They reported no support for this idea, but found instead that patterns for both females and males were consistent with gender roles. Ketner and Humphrey (1980) compared 59 female and 61 male homicide offenders in North Carolina with 120 property offenders (half female and half male) in an attempt to find evidence of role unreciprocity (i.e., blockage of one’s performance of appropriate social roles) leading to frustration and other-directed violence. They reported support for their

hypothesis, and also noted that the female homicide offenders had sustained greater amounts of negative life experiences (in their marital, parental, and childhood roles) than the male homicide offenders.

McClain (1982a; 1982b) focused her attention on black female homicide offenders in six large American cities. She concluded that black female homicide offenders and black female homicide victims both tend to have low socioeconomic status and are also similar with respect to educational level, experiences with previous violence, low rates of heavy drug and alcohol involvement, and employment patterns (McClain, 1982b). She also documented that, although men with whom the offender had an emotional relationship continue to be the most likely victims, the percentage of victims who were strangers has increased (McClain, 1982a).

Daniel and Kashani (1983) stated that violent female offenders, although sharing many of the characteristics of female offenders generally, tend to differ from non-violent female offenders in a number of ways: they tend to have fewer arrests; age at first arrest tends to be higher; they are generally more socially conforming; they have much lower rates of "sociopathic psychopathology"; they tend to have more organized marital lives; and there tend to be lower rates of criminality in these women's families. This pattern suggests that women arrested for violent acts are not usually habitual criminals, but may be responding to extreme circumstances in their lives. Daniel and Kashani (1983) also noted that violent women are more likely to have been victims of violence themselves as children. They concluded that the "large majority of female violent crimes are

intrafamilial and related to *life experiences*” (p.709, italics in original). The high rate of intrafamily victims when females kill was also evident in a comprehensive study of homicide offenders in the United States conducted by Wilbanks (1983), who considered all homicides which occurred in 1980 in that country. He found that males were 6.4 times more likely than females to be perpetrators in the 21,002 criminal homicides identified, and that victims of males tended to be acquaintances (43.6%), while victims of females tended to be their sexual partners (45.1%).

There is some indication that females who commit assaultive crimes against strangers differ from those who do so against people with whom they have a relationship. Edwall, Villanueva, Holigan, Buchanan, and Campbell (1989) found that a history of juvenile offending was more characteristic of women who assaulted strangers. They also reported that distress displayed by this group is most probably a consequence of characterological difficulties (i.e., personality pathology), and recommended that treatment efforts focus on eliminating problematic social behaviours likely to invite stressful consequences rather than on the distress itself. In the case of women who had committed crimes against those they knew, however, Edwall et al. (1989) predicted high levels of acute distress and recommended supportive treatment targeting the distress itself.

Intrafamilial violence committed by women has, not surprisingly, received some specific attention in the literature. Barnard, Vera, Vera, and Newman (1982) compared 11 female and 23 male spousal murderers and found that females tended to be younger

and better educated, to have fewer previous arrests and less alcohol abuse, to be less likely to have previously assaulted their victim, and to be more likely to have been previously battered by their victim. Barnard et al. (1982) concluded that the males tended to have killed in response to a perceived rejection by their spouse, and that the females tended to have killed in response to a verbal or physical act of provocation by their partner. Many authors have begun to draw attention to the high incidence of abuse perpetrated against women who eventually kill their physically (and often also emotionally and sexually) abusing sexual partners (e.g., Browne, 1987; Daniel & Harris, 1982; Foster, Veale, & Fogel, 1989).

Sexual partners are not the only victims of women who commit intrafamily homicide. Goetting (1988) noted the extreme rarity with which women kill other females, recording that when this does occur, however, the victim is usually a child or other family member of the perpetrator. Wilbanks' (1983) study, referred to above, indicated that 11.5% of all the murders women committed in the United States in 1980 were of their own children. R. A. Silverman and Kennedy (1988) analyzed the data on all homicides committed by females in Canada between 1961 and 1983 (statistics on infanticide and manslaughter were only available for the last ten years of this period, so are excluded from the current discussion). Forty percent of these homicides were perpetrated against sexual partners and 24% were against the offenders' children. Perpetrators were found mentally ill in 6% of the cases involving a spouse as the victim; when the victim was the offender's child, this figure jumped to 67%. Females who killed

their children (especially in cases of infanticide) tended to be younger than those who killed others.

Considered as a whole, the picture which emerges from the literature on violent female offenders is quite internally coherent. Female-perpetrated violence is rare relative to that committed by males. Instrumental violence (i.e., robbery) tends to be planned, while assaultive behaviour tends to be enacted more impulsively. Violent women tend to have experienced violence themselves as children. When women kill, they tend to murder someone with whom they have an emotional relationship rather than a stranger, and their crime tends to occur within the context of a traditional gender role. Most often, the victim is a male (and often, abusive) sexual partner. Children and other family members are the next most common victims. Women who do kill strangers tend to have a higher rate of long-standing personality pathology than those who kill family members. In Canada, those who kill their own children have the highest likelihood of being found mentally ill of all women who commit homicide.

Female Sex Offenders. Female sex offenders are extremely rare. O'Connor (1987) reported that only 462, or 0.95%, of 48,696 sexual offenses committed between 1975 and 1984 in England and Wales were committed by women. A high proportion of these offenses involved either indecent exposure or aiding and abetting a man in committing a sexual offense. Rowan, Rowan, and Langelier (1990) found only nine females (1.5%) out of 600 sexual offenders in their study of New Hampshire and

Vermont offenders. Six of these women had acted in the company of a dominant male. Eight were diagnosed with at least one personality disorder, one was diagnosed with schizophrenia, six had borderline or lower intelligence, and at least six had experienced childhood abuse.

Hunter and Lexier (1993) surveyed 10 adolescent female sex offenders between the ages of 13 and 17, finding them to share with their male counterparts both similar perpetration patterns (i.e., multiple victims of both sexes and fantasies prior to onset of offending) and an etiological link to their own prior victimization (typically of early onset and by a number of abusers). Travin, Cullen, and Protter (1990) characterized the small number of female sex offenders they studied as typical of other female sex offenders, being both severe victimizers and victims of severe abuse. The finding of high rates of abusive experiences in the histories of female sex offenders has been a rather consistent one (e.g., Fehrenbach & Monastersky, 1988). Negative early sexual experiences have also been found in higher rates among adult female prostitutes than among other female offenders (Vitaliano, James, & Boyer, 1981), although the absence of a difference on this dimension has been reported for juvenile female offenders in at least one study (Bour, Young, & Henningsen, 1984), likely due to the high rates of abuse in both groups in this study and the rather superficial nature of the research.

In essence, the literature on female sex offenders suggests that females comprise approximately 1% of all convicted sex offenders, and that histories of extreme abuse, especially extreme sexual abuse, are almost universal in this population.

Adjustment to Prison and Treatment of Female Offenders. A number of researchers have considered female inmates' adjustment to their incarceration and treatment approaches directed at facilitating positive adjustment. Sultan et al. (1984) compared two different types of support groups to a no treatment control group in their examination of 61 female North Carolinian inmates' transition into prison life, concluding that support and especially information were important in alleviating the acute stressors created by recent incarceration. Sultan and her colleagues also compared recidivists and first-time offenders in this sample, noting similar levels of depression, anxiety, and social-emotional adjustment status in the two groups (Long, Sultan, Kiefer, & Schrum, 1984). First-time offenders were more likely to be married and have children, and less likely to have been physically or sexually abused as children. These researchers have also provided a detailed description of an optimal psychodidactic support group approach for use with inmates in other institutions (Sultan, Kiefer, & Long, 1986), and implemented a version of this approach with a group of inmates who had histories of sexual and/or physical abuse (Sultan & Long, 1988). Wilfley, Rodon, and Anderson (1986) described treatment efforts directed at helping female offenders deal with anger. Of note, high rates of psychiatric problems were identified in their small sample, including personality disorders, anxiety disorders, and alcohol and drug dependence.

Campbell, Robinson, MacKenzie, and Winfree (1988) found that the women in their sample of 141 female Louisiana inmates became more masculine and less feminine in gender-role identity as they moved from an early to a later stage of their incarceration,

and pondered the possible implications for recidivism. These researchers also reported that comparisons of newly entered short-term inmates, newly entered long-term inmates, and long-term inmates well into their sentences indicated only minor differences on measures of coping and adjustment (MacKenzie, Robinson, & Campbell, 1989). Newly entered inmates were more concerned with safety and more likely to belong to "play" families, and newly entered short-term inmates in particular reported feeling less in control of events in their environment. Long-term inmates reported more situational problems and increased concerns with realistic problems posed by their limiting environment, but did not demonstrate any deterioration in ability to cope. Griffith (1984) examined the experience of locus of control in 196 female inmates in the Western United States, reporting that they responded to only two dimensions, internal and external, and did not appear to experience the third dimension, chance. These results were independent of length of imprisonment. He interpreted these findings as an indication that inmates were unable to distinguish between behavioural consequences resulting from chance factors and those resulting from the intentional actions of powerful others, mitigating against inmates' ability effectively to learn from reinforcement (reward and punishment) schedules linked to their behaviour.

I. Sommers and Baskin (1994) interviewed 30 women with long histories of offending about the process by which they were able to desist from offending. They reported that this lifestyle change appeared typically to be a three-stage process which involved: building and/or discovering the motivation to change; making, and publicly

disclosing, a decision to stop doing crime; and maintenance of new, non-criminal behaviours and integration into new social networks. Of note, the last two of these steps implicate the importance of social support and the interpersonal context in assisting women to alter their offending behaviour.

Implications. The review of empirical literature on female offenders provided above implicates a number of factors which appear to be of at least correlational, if not etiological, significance in female criminality. These include both intra-individual and extra-individual variables. An approach which considers both internal and external determinants of criminality avoids the simplistic notion that individuals operate in a contextual vacuum while at the same time remains respectful of the position that individuals make choices about the behaviours in which they engage. The perspective endorsed here is that biological givens (i.e., genetic factors)¹ interact with circumstances (i.e., abuse, quality of received parenting, poverty, cultural heritage, educational and career opportunities, social experiences, traumatic events, etc.) to influence both perceived and actual choices, which in turn affect interpersonal behaviour, lifestyle decisions, aspirations and goals, self-esteem, degree of conformity to social mores --- in essence, everything which shapes both an individual's experience of her or his life and

¹ While the issue is not reviewed here, Carey and DiLalla (1994) have provided a recent examination of research in behaviour genetics. They concluded that genetic factors have a large effect on personality traits, including "a major impact on the variance of an individual trait, on the covariance across traits, and on the general structure behind traits" (p.42).

others' perceptions of her or him. The quality of outcome associated with this confluence of genetic and circumstantial factors is perhaps best captured by the construct of personality. In other words, although personality is generally considered to be an intra-individual variable, its formation seems best considered as a product of both internal and external factors. Many authors (e.g., Monte, 1987) have noted the extreme difficulty faced by psychologists in attempting to define personality, but most, if they agree that it is useful to talk about the construct at all, have settled for some version of Rychlak's (1981) definition of personality as the habitual style of behaviour that people reflect (see, e.g., Maddi, 1989). Watson, Clark, and Harkness (1994) have noted that most attempts to define personality include notions of the construct as internal, organized, consistent across time and situations, motivational, and adaptive. People are "habitual," or "consistent," (i.e., predictable) as a result of biological givens and previous experiences.

The notion that personality is predictively, as well as descriptively, valuable is important. An examination of personality variables is a fruitful starting point for considering female offenders, not only because it helps us describe this population, but also because knowledge of an individual's personality provides powerful information about that individual's likely responses to particular situations such as habitat (i.e., the physical and social context of prison life), and to intervention strategies. "Pathological" personality features (and psychopathology in general) are of particular interest in this population, because the problematic behaviours which result in legal sanctions are often

attributed to personality pathology and other mental illness. Prevalence rates of various forms of mental illness among female offenders are considered in the next section.

Prevalence Rates of Personality Disorder and Other Psychopathology

Among Female Offenders

The prevalence rate of psychopathology among female offenders has generally been identified as quite high. A number of recent studies have examined the incidence rates of specific types of mental disorders among women who have been incarcerated for a variety of crimes. Washington and Diamond (1985), for example, found 41.7% of their sample of 115 California inmates met the criteria for at least one DSM-II diagnosis, mostly personality disorder or one of the neurotic disorders. Daniel, Robins, Reid, and Wilfley (1988) reported significantly higher than general population prevalence rates for a variety of mental disorders in their sample of American female offenders, including schizophrenia, major depression, substance use disorders, psychosexual dysfunction, and antisocial personality disorder. Ingram-Fogel (1991) conducted health interviews with 135 women within their first week of admission to jail and again at a follow-up after they had been in the institution for six months. Women in her study reported very high levels of severe psychiatric disturbance, substance abuse, obesity, gynecological disorders, and a variety of stress-related symptoms, and these problems persisted over the time between the two interviews.

Brownstone and Swaminath (1989) conducted a retrospective chart review of all

female inmates admitted to the forensic unit of a Canadian psychiatric hospital over a six year period spanning the calendar years from 1981 to 1985. Particularly high rates of psychopathology would be expected in this sample, given that it was drawn from forensic psychiatric admissions rather than from a general forensic population.

Brownstone and Swaminath (1989) found that 49.3% of the 91 women evaluated using ICD-9 criteria were assigned a primary diagnosis of psychotic illness (various forms of schizophrenia and/or paranoid states), 8.8% were diagnosed as suffering from manic-depressive psychosis, 38.5% received a primary diagnosis of personality disorder (mostly hysterical, antisocial, and immature), 4.4% were diagnosed with substance abuse as their primary disorder, 3.3% were classified as mentally retarded, and 2.2% received the diagnosis of adjustment disorder. They also noted that offenders under the age of 30 were most likely to be personality disordered while those above 30 were more often found to be psychotic.

Working in the United States, Daniel, Harris, and Husain (1981) compared differences between midlife and younger female offenders referred for a forensic evaluation, using the age of forty as their cutoff point to distinguish between the two groups. They found that affective disorder (primarily depression) was the most common diagnosis in the midlife group (33.3%), while antisocial personality disorder (APD) was the most common diagnosis in the younger group (39.6%). None of the older women met the criteria for this diagnosis. The criteria for schizophrenia and alcoholism were each met by 27.8% of the midlife group, while schizophrenia (20.8%) was the next most

frequent diagnosis for the younger group. Daniel et al. (1981) characterized the younger group as habitual criminals who were frequently diagnosed with APD, and the midlife group as nonpersistent offenders who posed no serious threat to society and were frequently diagnosed with depression and alcoholism.

Daniel and Harris (1982) also compared the psychiatric diagnoses of 22 homicidal women in the United States with those of 44 non-homicidal offenders.² The most common diagnosis for the non-homicidal group was personality disorder at 27.3%, followed by schizophrenia at 18.2%, mental retardation at 15.9%, and affective disorder at 13.6%. For the homicidal group the most common diagnoses were schizophrenia and personality disorder, both at 31.8%, followed by alcoholism and organic brain syndrome with psychosis, both at 9.1%. Six point eight percent of the non-homicidal group and 13.6% of the homicidal group were classified as having no mental disorder.

When Axis II psychopathology alone is considered, prevalence rates remain high. Dolan and Mitchell (1994) found that 76% of their sample of 50 female offenders admitted to the medical wing of an English prison met the criteria for a least one personality disorder diagnosis, with an average of 4.46 personality disorder diagnoses per woman. (Again, high rates of psychopathology, be it Axis I or Axis II, would not be unexpected in this sample given that it was drawn from a medical correctional setting.) This finding is very consistent with a recent Canadian study which reported that 74% of

²While they do not directly identify them as such, it appears that the offenders in this study are actually the same as those included in the Daniel et al. (1981) study just discussed, making it difficult to interpret the slight differences in overall rates of psychopathology reported in these two studies.

a sample of 75 female inmates (most of the approximately 80 women incarcerated in the prison at the time of the study---note that this is a non-medical sample) met the criteria for at least one Axis II disorder (Tien et al., 1993). Tien et al. (1993) found a preponderance of the personality disorder diagnoses made fell in the antisocial personality disorder category (49%), followed by the borderline personality disorder (16%), the avoidant personality disorder (15%), and the paranoid personality disorder (12%) categories. The remaining personality disorders each accounted for 4% or less of the personality disorder diagnoses made. Tien et al. (1993) also found a high rate of Axis I disorders. Sixty-seven percent of the women met the criteria for a psychoactive substance use disorder, 24% had an anxiety disorder, 20% had a depressive disorder, and 7% had a bipolar disorder, while eating disorders and psychotic disorders criteria each were met by 4% of the women, and organic mood disorder and sleep-wake disorder each accounted for a further 1%. The results of the various studies providing prevalence rates of psychopathology in non-Canadian female offender samples are summarized in Table 1. Those describing Canadian samples are summarized in Table 2.

As the foregoing review indicates, rates of psychopathology have rather consistently been found to be high in samples of female offenders, whether the offenders under consideration are drawn from the general inmate population or they are drawn from the psychiatric or medical unit of a forensic setting. Rates of psychotic illnesses are, not surprisingly, particularly high among psychiatric and medical forensic samples. However, the prevalence rates of affective, anxiety, and substance abuse disorders are

Table 1
Prevalence Rates of Axis I and Axis II Disorders Reported in the Literature on American Female Offenders

STUDY	SETTING AND SAMPLE SIZE	FINDINGS
Daniel & Harris (1982) ^a	U.S. State Hospital Facility for Pretrial Psychiatric Evaluation Referrals N = 66 (22 Homicide and 44 non-Homicide Offenders)	Axis I: 50% Schizophrenia 20% Mental Retardation 16% Alcoholism 16% Organic Brain Syndrome with Psychosis 14% Affective Disorder 5% Other Axis II: 59% Unspecified PD
Daniel, Harris, & Husain (1981) ^a	U.S. State Hospital Facility for Pretrial Psychiatric Evaluation Referrals N = 66 (48 aged 17-39 and 18 aged 40-54)	Axis I: 48% Schizophrenia 33% Depression 28% Alcoholism 24% Mental Retardation 10% Organic Brain Syndrome with Psychosis 4% Neurosis Axis II: 40% Antisocial PD
Dolan & Mitchell (1994)	Medical Wing of a British Prison (Both Remanded and Sentenced) N = 50	Axis I: Not presented Axis II: 60% Borderline PD 52% Paranoid PD 44% Antisocial PD 40% Histrionic PD 38% Schizotypal PD 34% Narcissistic PD 34% Dependent PD 32% Avoidant PD 28% Schizoid PD 26% Passive Aggressive PD 20% Compulsive PD
Daniel, Robins, Reid, & Wilfley (1988)	U.S. Classification Centre N = 100	Axis I: 62% Substance Abuse/Dependence 53% Anxiety Disorder 23% Major Affective Disorder 7% Schizophrenia 1% Eating Disorder Axis II: 29% Antisocial PD

^a The first two studies by Daniel and his co-authors listed in this table appear to have examined the same 66 women, so it is unclear why the rates of disorder reported in the two studies differ from one another.

Table 1 continued on next page

Table 1 (continued)

Prevalence Rates of Axis I and Axis II Disorders Reported in the Literature on American Female Offenders

STUDY	SETTING AND SAMPLE SIZE	FINDINGS
Ingram-Fogel (1991)	U.S. Maximum Security Facility N = 135	Axis I: 61% Alcohol Abuse 40% Drug Abuse 21% Unspecified Mental Illness Axis II: No information
Washington & Diamond (1985)	Sample Drawn from 5 County Jail Systems N = 115	Axis I: 7% Schizophrenia 7% Depression 5% Other Neurosis 2% Adjustment Reaction 1% Manic Depression Axis II: 23% Unspecified PD
Wilfley, Rodon, & Anderson (1986)	U.S. Maximum Security Facility N = 8	Axis I: 25% Anxiety Disorder 13% Alcohol Dependence 13% Drug Dependence Axis II: 38% Mixed PD 25% Antisocial PD 13% Atypical PD 13% Schizoid PD 13% Passive Aggressive

Table 2
Prevalence Rates of Axis I and Axis II Disorders Reported in the Literature on Canadian Female Offenders

STUDY	SETTING AND SAMPLE SIZE	FINDINGS
Brownstone & Swaminath (1989)	Medium Security Forensic Unit of Provincial Psychiatric Hospital N = 91	Axis I: 43% Psychoses 9% Manic-depressive Psychosis 4% Substance Abuse 3% Mental Retardation 2% Adjustment Disorder Axis II: 10% Hysterical PD 8% Antisocial PD 7% Immature PD 2% Explosive PD 2% Borderline PD 10% Other PD
Robertson, Bankier, & Schwartz (1987)	Provincial Remand Centre N = 100	Axis I: 34% Alcohol Use Disorder 6% Drug Use Disorder 4% Psychosis 4% Borderline Intelligence Axis II: 60% Antisocial PD
Tien et al. (1993)	Federal/Provincial Mixed Facility N = 75	Axis I: 67% Psychoactive Substance Use 24% Anxiety Disorder 20% Depressive Disorder 7% Bipolar Disorder 4% Psychotic Disorder 4% Eating Disorder 1% Organic Mood Disorder 1% Sleep-Wake Disorder Axis II: 49% Antisocial PD 16% Borderline PD 15% Avoidant PD 9% Paranoid PD 5% Narcissistic PD 3% Schizoid PD 3% Schizotypal PD 3% Passive Aggressive 1% Histrionic PD 1% Obsessive Compulsive PD 12% PD Not Specified

higher among even the non-medical female offenders than would be expected based on rates for the population at large. Rates for the personality disorders are markedly higher than expected in female offenders, ranging from 23% to 74% in the studies cited here. For example, although Tien et al. (1993) found approximately 49% of the offenders in their sample met the criteria for APD, the estimated prevalence rate for this disorder among all females in the United States is less than 1% (American Psychiatric Association, 1987).

Axis II disorders are of particular interest here, both because of their high incidence among offenders and because of their relatively intractable nature (Freeman & Pretzer, 1990). Although many of the Axis I disorders (e.g., the psychoses and the mood disorders) are frequently successfully treatable using psychopharmaceutical agents and/or psychotherapy, personality disorders are typically unaffected by drug therapies and are slow to respond, if they do so at all, to therapeutic interventions.³ In addition, the symptoms of personality disorders are often at least as distressing to those around the individual as they are to the individual her- or himself. Indeed, personality disorders, by the very criteria used to diagnose them (and thus by definition), reflect interpersonal dysfunction. West and Sheldon-Keller (1992) have noted that disturbed relationships are very often *the* presenting complaint of individuals who are subsequently diagnosed as suffering from personality disorder. The next section considers issues relevant to

³Despite this pessimistic assessment of personality disorders' responsiveness to treatment, a substantial body of literature exists on how to treat individuals suffering from specific forms of pathological personality (e.g., Kernberg, Selzer, Koenigsberg, Carr, & Appelbaum, 1989; Shapiro, 1989).

evaluating personality pathology.

General Considerations in the Evaluation of Personality Pathology

Problems With Current Approaches to Evaluating Personality Pathology

In recent years there has been extensive interest in the personality disorders, as well as a great deal of dissatisfaction with and controversy over current approaches to classifying them. The *Diagnostic and Statistical Manual of Mental Disorders* (third edition, *DSM-III*, American Psychiatric Association, 1980; and revised third edition, *DSM-III-R*, American Psychiatric Association, 1987) has been the focus of much of the criticism, as it is the most widely used diagnostic manual for mental disorders in use in North America. (Although a fourth edition of DSM was published in 1994, insufficient time has elapsed since its appearance adequately to evaluate its impact). At issue are the personality disorder diagnoses themselves, the criteria proposed for identifying them, and the categorical nature of the system.

The Issue of Problematic Personality Diagnoses. Numerous authors (e.g., Livesley, 1987; Pfohl, Coryell, Zimmerman, & Stangl, 1986) have lamented the lack of distinctiveness between different personality disorder categories, and noted the high frequency with which an individual who has been diagnosed with one personality disorder also meets the criteria for at least one more comorbid personality disorder. Livesley, Reiffer, Sheldon, and West (1987) described personality disorders as “fuzzy

sets” (p.396), and reported that most of the DSM-III personality disorder diagnoses include criteria items which the 938 clinicians they surveyed do not consider to be prototypical. In sum, pandemic comorbidity and diagnostic difficulty make the position that our current nosological system is describing the actual state of affairs with respect to personality pathology rather untenable.

The Issue of Problematic Criteria. With respect to the criteria used to diagnose personality disorders, Livesley (1987a; 1987b) noted that synonyms are sometimes used to create superficial distinctiveness between diagnoses, that terms are frequently used in their everyday sense rather than being precisely defined, that there has been a failure to differentiate between constructs, and that diagnostic criteria differ in their degree of generalization. All of these features of the system likely contribute to the lack of diagnostic precision. Critics have also focused on the advisability of using behavioural criteria rather than trait-based descriptors to identify personality disorders. Livesley (1985a; 1986), for example, argued that specific behaviours rather than traits are the personality equivalent to illness symptoms, and that their uniform application would greatly enhance the reliability of diagnoses. Livesley and Jackson (1991) suggested that optimal selection of diagnostic items requires a two-stage process, involving first identifying traits relevant to the given personality disorders and then identifying the prototypical behavioural manifestations of those traits. They have characterized this approach to personality disorders as hierarchical, viewing prototypical traits as providing

the definitional component and specific behaviours as appropriately forming the diagnostic criteria (Livesley & Jackson, 1986).

The Issue of Using a Categorical Approach to Conceptualizing Personality

Disorders. The issue of the categorical nature of the current approach to the personality disorders raises three related problems. One is whether personality dysfunction might more profitably be considered from a dimensional perspective, an approach which Livesley (1985b) originally rejected but has now come to support (e.g., Livesley, 1991). Livesley and Jackson (1992) concluded that the empirical evidence supports a dimensional rather than a categorical model, pointing out that trait measure scores are “invariably continuously distributed” (p.611). Widiger et al. (1991) wrote: “The degree of co-occurrence and covariation is consistent with the suggestion that a dimensional model would be more appropriate than the categorical in the classification of personality disorders.” (p.182).

A second question related to the debate over categories is whether normal and abnormal personality outcomes should be considered as distinctive rather than dimensional in nature. The continuous nature of normal and abnormal personality is supported by research such as that by Livesley, Jang, Jackson, and Vernon (1993), who found high levels of broad heritability for most dimensions of personality pathology which were similar to those for normal personality. Livesley also reported similar factorial structures in general population and clinical samples when considering specific

subsets of personality disorders, the DSM-III-R Cluster A diagnoses (Livesley & Schroeder, 1990) and the DSM-III-R Cluster B diagnoses (Livesley & Schroeder, 1991), further supporting the position that normal and pathological personality are not categorically distinct.

The third issue regarding the categorical nature of the present system is whether there is any justification for placing the personality disorders on a separate axis from the mental disorders, or whether they should more properly be considered as mental disorders themselves. Livesley, Schroeder, Jackson, and Jang (1994) argued cogently that normal and abnormal personalities are best described as dimensional rather than as separate entities, and that there is no empirical or rational justification for separating the personality disorders from the other mental disorders which have been assigned to Axis I. They pointed out that good evidence exists for the presence of a biogenetic component to personality disorders and for the presence of a psychosocial component to many Axis I disorders, invalidating etiological differences as a rationale for distinguishing between these classes of disorder. Livesley et al. (1994) also noted that the course and stability of personality disorders appear similar to those for many Axis I disorders. Pfohl, Black, Noyes, Coryell, and Barrash (1991) noted that there is a greater than chance comorbidity between Axis I and Axis II disorders and that the presence of an Axis I disorder negatively affects the course and treatment response of Axis II disorders, suggesting that the distinction between Axis I and Axis II is an inappropriate one. Furthermore, Carey and DiLalla (1994) utilized behaviour genetics analysis to

demonstrate the link between personality and psychopathology, thus providing additional support for the connection between the Axis I and Axis II disorders.

A Proposed Alternative

It seems, based on the above review, that although *DSM-III-R* diagnoses are currently the normative approach to identifying and labeling disorders of personality, an approach which is more clearly based on empirically identified traits and criteria may prove not only more reliable and more valid, but may also prove ultimately to be of more use in planning assistance strategies (i.e., interventions) for those with interpersonal dysfunction. One such approach has been proposed by Livesley and his colleagues (e.g., Livesley, Jackson, & Schroeder, 1989; 1991; 1992), who developed a measure which evaluates dimensions of personality pathology. They utilized a content analysis approach to identify the clinical features of each *DSM-III* Axis II diagnosis, and then used the judgments of systematic samples of North American psychiatrists to identify the most prototypical features of each diagnosis. These prototypical features were next organized into trait categories, and then the content validity of the trait descriptions was confirmed by the expert judgments of independent samples of psychiatrists. Additional scales were developed in response to changes introduced by *DSM-III-R*. A total of 100 scales were required to describe all of the highly prototypical and less prototypical features of each diagnosis, with each personality disorder diagnosis conceptualized as a cluster of correlated traits. These scales were then reduced through factor analytic means to a

more parsimonious and practical set of 18⁴ scales. The resulting measure, the Dimensional Assessment of Personality Pathology (DAPP), has been evaluated on a range of samples (both clinical and general population), with high reliability and similar factor structures being obtained for both samples, thus lending support to this dimensional approach to conceptualizing personality pathology. Schroeder, Wormworth, and Livesley (1994) also found that the DAPP factors are strongly related to the five factors of normal personality as assessed by the NEO-PI, further supporting the contention that pathological personality is quantitatively rather than qualitatively different from normal personality. Livesley's (1994) current version of the DAPP includes the five higher order dimensions of Lability, Antagonism, Interpersonal Unresponsiveness, Compulsivity, and Impulsive Stimulus Seeking. These higher order factors are comprised of the 18 lower order factors referred to above. (See Table 3 for a full list of these factors.)

A dimensional approach seems ideally suited to considering personality variables in female offenders, as it permits an evaluation of relevant personality pathology while at the same time doing so without requiring categorical decisions. Although the incidence of personality disorder in this population is very high, it is not universal. Women find themselves in prison for a variety of offenses and after experiencing diverse life experiences. An approach which considers personality pathology as an extreme variant

⁴An earlier version, not described here, included only 15 scales.

Table 3

Livesley's (1994) Dimensions of Personality Pathology, Including the Higher Order and Their Component Factors

LABILITY	ANTAGONISM	COMPULSIVITY	INTERPERSONAL UNRESPONSIVE- NESS	IMPULSIVE STIMULUS SEEKING
Affective Lability	Interpersonal Disesteem	Compulsivity	Intimacy Problems	Cognitive Distortion
Anxiety	Narcissism		Restricted Affect	Conduct Problems
Identity Problems	Rejection			Self Harm
Insecure Attachment				Stimulus Seeking
Passive Oppositionality				
Social Avoidance				
Submissiveness				
Suspiciousness				

of normal personality traits avoids the problems with the DSM systems outlined above, and also minimizes potential loss of information in the sort of diverse sample likely from a population of female offenders.

The Interpersonal Nature of Personality Pathology Manifestations

As noted above, many of the criteria which are used to diagnose personality disorders are operationalized descriptions of interpersonal behaviour (e.g., “close friendships with no more than one person” for schizoid personality disorder and “hypersensitivity to the evaluation of others” for narcissistic personal disorder). Affiliative needs are universal in humans and thus, problematic interpersonal functioning can have a profoundly negative impact on an individual’s sense of well-being and mental health. Likewise, as noted above, an individual who is functioning poorly interpersonally can also be distressing to others. In essence, although personality is generally considered an intra-individual condition, we are fundamentally concerned with the interpersonal domain in which it is manifested. Although personality certainly must contribute to interpersonal experience, it seems unlikely that personality per se accounts for humans’ strong affiliative needs. The need for connections to others has been considered separately from personality and, indeed, evidence exists for the incremental validity of attachment measures to the evaluation of personality variables (Griffin & Bartholomew, 1994; Shaver & Brennan, 1992). The issue of how and why individuals form attachments to others has been considered by large numbers of theorists. Some have

considered attachments as themselves primary, while others have suggested that they are derivative from the experience of having primary survival needs met (i.e., reduction of the infant's hunger drive resulting from actions of the mother leading secondarily to the formation of an attachment to her).

Although still a contentious issue,⁵ it has become increasingly accepted that affiliative needs are non-derivative and begin very early in life (see, e.g., Eagle, 1984, for a review favouring this latter view). D. K. Silverman (1991), for example, suggested that bodily-based drives and attachment form two separate motivational categories which are both present at birth. A somewhat different position which essentially ignores drives as an issue and focuses only on relational needs is that presented by Blass and Blatt (1992). They described personality and the sense of self as emerging from the integration of two fundamental developmental lines, one involving attachment and the other involving separateness, noting that "attachments express the individual's innate and lifelong needs for human contact" (p.191). This latter position is similar to that espoused by Stern (1985).

Thus, although theoretical details vary, the object relations view that an orientation towards relating to and attaching to others is a fundamental human characteristic has become increasingly widely accepted. This perspective is certainly

⁵See, for example, Greenberg and Mitchell (1983) for a comprehensive discussion of the theories of those who believe that object relations are vicissitudes of Freudian drives and those who believe that relatedness to others is the fundamental and primary motivating force in human behaviour and development.

reflected in the attachment literature (albeit with a greater focus on mental health than on pathology, and on actual as opposed to imaginary experiences with caregivers), which considers the process by which infants attach to their caregivers. Recently, this approach has also been brought to bear on how early attachment experiences exert a formative influence on relationships across the lifespan. This literature will be reviewed below. First, however, consideration is given to a body of literature which derives from a different, feminist, tradition. This work reflects the notion that the developmental pathways by which girls and boys grow into adulthood differ in some fundamental ways. In this view, relatedness to others is perceived as more crucially formative in female development than in male development.

The Importance of Connectedness to Others in Women's Development

Chodorow (1978) provided an early and complex account of the importance to females of connections to others which did not consider such attachments as merely based in dependency and as reflecting females' weaker psychological developmental line vis-à-vis males. She applied a Feminist-Marxist-Psychoanalytic analysis to the childhood experiences of boys and girls, and concluded that gender-based parenting roles in which women are consistently the primary caregivers in family units creates a situation in which the female child develops a more complex set of internalized attachments than the male child. Briefly, this occurs because: mothering by women leads girls to experience themselves as having more permeable ego boundaries than is the case for boys, who have

a need to distance themselves from women in order to prove themselves male; the mother is omnipresent, while the father is relatively absent and thus at best only a secondary attachment object for his children; and, while the boy adopts a role identification with his father and primarily cathects with his clearly different mother (resulting in a dyadic internal attachment organization), the girl adopts a role identification with the mother and *adds* a cathection to the father to her already extant cathection to her mother (resulting in a triadic internal attachment organization). This mechanism, combined with differential reinforcement histories and a number of other influences, leads to a situation in which boys are more autonomy-seeking and achievement-oriented, and in which girls are primarily focused on attachment and connection and have a greater relational capacity than boys.

Although a number of problems exist in Chodorow's (1978) analysis (see Elliot, 1991, and Gardiner, 1987, for critiques), her conclusion that relationships to others are vitally important to women is shared by a number of other authors. J. B. Miller (1976) has described the process by which women are encouraged to form themselves into people who will be of benefit to others, noting that the female's task has been to transform her drives into the service of another's drives rather than to mediate between her own drives and reality (as Freud has described the process of ego development in males). In Miller's view, women occupy a subordinate position in society and consequently they develop characteristics which both reflect this position and enable them to cope with it. An orientation towards others is promoted in them so they will

develop psychological characteristics that are useful and pleasing to the dominant group (men). Greenspan (1983) has implicated the socioeconomic position of women, and the nature of their work as designed to meet the needs of others, in creating the context for female ego development, describing women's labour as the labour of relatedness and their sense of self as centered around and through their relationships to others. She views women's facility in relatedness as a contributing factor in their oppression and exploitation because relational work is demanded of women only rather than being a reciprocal responsibility between women and men.

Gilligan (1982) articulated the impact of women's focus on relationships in creating a care-based morality revolving around issues of responsibility for, care of, and inclusion of other people, contrasting this with men's justice-based moral reasoning which revolves around issues of equality and fairness. She noted that decisions based on the more abstract, justice-based model reflect formal logic and a set of principles which define rights and rules, while decisions based on the care-based model reflect a "psychological logic of relationships" (p.73) and focus on problems of care and responsibility in relationships. S. S. Simpson (1989), basing her argument on Gilligan (1982), commented that a woman's decision to engage in criminal behaviour will reflect her analysis of the moral domain (i.e., her analysis of how those around her will be affected, especially those who count on her, and of what kinship networks may exist to provide substitute care).

Eichenbaum and Orbach (1983a; 1983b; 1987) examined the impact of a sense of

relatedness on women with respect to their development of self and ongoing connections to others. A number of authors have identified an orientation towards others as central in the development of women across the lifespan (Conarton & Silverman, 1988; Gleason, 1991; Kaplan & Klein, 1991; Kaplan & Surrey, 1984). The idea of the relational self has also been acknowledged as an important consideration in therapeutic interventions (Cammaert & Larsen, 1988; Greenspan, 1983; Lazerson, 1992; Tolman, 1994).

Perhaps the most well-articulated and systematic theoretical consideration of the female relational self has been presented by authors at the Stone Center at Wellesley College, who believe that the organizing factor in women's lives is what they refer to as "relational growth" (Jordan, Kaplan, Miller, Stiver, & Surrey, 1991, p.1). J. B. Miller (1991), for example, has described the sense of being-in-relationship, or presence of an internal representation of the self in active interchange with others, which is present from birth in infants. She noted that girls are systematically encouraged to augment this form of sense of self and resulting empathic stance towards others, while boys are systematically diverted from this way of being and experiencing self. The role of empathy in organizing and maintaining women's relational self structure has been examined in detail by others at the Stone Center (Jordan, 1991; Jordan, Surrey, & Kaplan, 1991; Surrey, 1991). Consistent in all of these theorists' work is the point that, for women, the primary experience of self is relational and the self is both organized and developed in the context of important relationships.

Calloni and Handal (1992) provided some preliminary support for the self-in-

relation model of female development. They evaluated the retrospective and current maternal and paternal attachment scores of 197 young women and 52 young men. No differences were found for retrospective maternal, retrospective paternal, or current paternal scores between the two groups. However, a significantly higher current maternal attachment score was obtained for the women than the men, suggesting that the women maintained their connectedness to their mothers over time. Calloni and Handal (1992) interpreted these findings as support for the self-in-relation model and concluded that “the importance of the maternal relationship as a template for connectedness and self-development appears to be sustained and enhanced as women continue their growth into adulthood” (p.906).

The view that female development is based on a sense of self as profoundly relational has, as noted above, been used to explain women’s strong orientation to others and their care-based morality. This orientation and value system would seem incompatible with behaviours which are relationship-damaging and/or uncaring of others. The interesting question is thus raised of what role, if any, disruptions to this relational developmental pathway play in mediating antisocial behaviour in women. In other words, if it is indeed true that, for women, sense of self is fundamentally a sense of self-in-relation, what implications does this have for the existence of women who chose to engage in criminal behaviours? Is female criminal behaviour, especially that which is psychopathic⁶ in nature, compatible with a sense of self-in-relation, or does it reflect a

⁶Current conceptualizations of psychopathy tend to include both descriptions of behaviour as

non-normative (female) sense of self?

Although the construct of a female relational self has been much more theorized about than empirically examined, there is another body of literature which has examined the developmental importance of relationships for humans, both male and female. This is, as noted above, the literature on attachment, and it is to this work we now turn.

A Brief Review of Attachment

Overview

Attachment in Infancy

Bowlby (1969, 1973, 1980) presented an evolutionary-ethological theory of human infant-mother attachment in a seminal three volume series, providing a framework for considering previously ill-understood human infants' attachment behaviours. Since then, numerous researchers have followed the groundbreaking work of Ainsworth (1969) and examined in detail the attachment patterns of infants and young children. The resulting plethora of studies in this area will not be covered here, other than to note that Ainsworth's three main attachment styles (secure, avoidant, and anxious-ambivalent) have rather consistently been observed. The evolutionary adaptiveness of these attachment styles has been adroitly, albeit speculatively, explained by Main (1990), who conceptualized the anxious attachment styles (avoidant and anxious-ambivalent) as

characterized by impulsivity and conduct problems, and descriptions of interpersonal functioning as marked by ruthlessness, lack of remorse, etc.

conditional strategies with which the infant is responding as adaptively as possible to less than optimally sensitive parenting. Briefly, avoidantly and anxiously-ambivalently attached infants are maximizing their chances for survival in a context-sensitive way by responding to their environments with behaviours which are most pleasing (or least stressful) to their caregivers. The avoidant infant minimizes responsiveness to danger in the face of a caregiver who promotes independence, and the anxious-ambivalent infant maximizes responsiveness to danger in the face of a caregiver who promotes prolonged dependence. These behaviours become habitual and are internalized as generalized event representations, forming the basis for expectations about future relationships (Zeanah & Barton, 1989). Similarly, West, Sheldon, and Reiffer (1987) suggested that the insecure attachment styles develop as a defensive response to an underlying inability to experience security in an attachment relationship.

Internal Working Models

One of the basic premises of attachment theory is that internalized models of attachment acquired in infancy remain relatively stable across the lifespan (Bolby, 1969). This notion has provided the rationale for examining the role of early attachment experiences in influencing later interpersonal relationships and for anticipating relative continuity of attachment style across time. Wachtel (1994) contributed a compelling view of the role of vicious circles “in which internal states and external events continually recreate the conditions for the reoccurrence of each other” (p.51). Although Wachtel

(1994) was not addressing the issue of attachment per se, his analysis of how the internal states of individuals influences their interpersonal behaviour in such a way as to perpetuate those internal states, while at the same time their interpersonal behaviour reinforces their internal state in such a way as to maintain the likelihood that they will continue the same interpersonal patterns, is rather easily extended to include the attachment domain.⁷

A number of authors have noted the importance of internal working models in organizing attachment behaviour. Main, Kaplan, and Cassidy (1985), for example, focused directly on individual differences in mental representations when they first expanded the attachment field to include adult attachment. They wrote:

We define the internal working model of attachment as a set of conscious and/or unconscious rules for the organization of information relevant to attachment and for obtaining or limiting access to that information, that is, to information regarding attachment-related experiences, feelings, and ideations....Our reconceptualization of individual differences in attachment organization as individual differences in the mental representation of the self in relation to attachment permits the investigation of attachment not only in infants but also in older children and adults and leads to a new focus on representation and

⁷Van den Boom (1989; cited in Rothbart & Ahadi, 1994) provided compelling evidence of the interactional effect between infant temperament and caregiver behaviour in developing a "trajectory of experience" (Rothbart & Ahadi, 1994, p.59) for the child. Noticing that mothers of distress-prone infants tended increasingly to ignore their infants over time, she trained the mothers of some distress-prone infants how to soothe and play with their infants. Six months later, these infants were much more likely than control infants (68% versus 28%) to be classified as securely attached. Rothbart and Ahadi (1994) outlined a variety of such interactional effects, including, for example, differences in caregiver disciplinary behaviour and differences in child temperament interacting to influence child moral behaviour. They noted that less coercive discipline techniques (such as encouraging the experience of distress in response to antisocial behaviour) may be ineffective for less inhibited children, thus encouraging more coercive techniques and diminishing internalization of moral standards in these children.

language. (pp.66-67)

Thus, the emphasis here is clearly on mental representations of attachment rather than on attachment behaviours per se, as is the case when evaluating infant attachment. Kobak and Duemmler (1994) provided a comprehensive discussion of their position that language is a gateway into understanding how internal working models are manifested in current attachment relationships. They examined the role of language in maintaining post-infancy attachment relationships through participants' efforts at verbally negotiating goal conflicts. In addition, they considered conversations as a valuable tool for studying attachment relationships across the lifespan. Currently, studies of attachment in adulthood typically focus on questionnaire and interview methods rather than on some behavioural equivalent of the Strange Situation paradigm used to evaluate infant attachment.

Following the work of Main et al. (1985), Bretherton (1987, 1990) also examined the importance of internal working models in the development of attachment styles. She noted that, because internal working models of self and caregiver develop out of dyadic transactional patterns, they should be complementary to one another. In other words, if, for example, an individual has developed a working model of a rejecting parent based on actual experiences with such an individual, then she or he would also develop a working model of self as unlovable (Bretherton, 1990). Bretherton (1990) has conceptualized these working models of self and other as consisting of hierarchically arranged schemata, including interactional (close to descriptions of actual experiences)

schemata at the lowest level and moving up to increasingly general schemata at higher levels, with some not directly accessible to conscious reflection. Individuals differ not only in the content of their models, but also in the degree of organization (i.e., consistency) between levels. By implication, these working models include both cognitive and affective components, an idea which is consistent with a number of other theorists (e.g., Collins & Reed, 1994; Fishler, Sperling, & Carr, 1990). Bretherton (1990) has also hypothesized about the mechanism by which intergenerational transmission of attachment patterns occurs, suggesting that defensive processes which induce biased or incomplete processing of information about relationships impact on working models of self and other at various levels of the schema hierarchies, making the models inconsistent and contradictory. A parent with an "ill-organized" working model of attachment (i.e., one of the insecure patterns) would likely misinterpret attachment signals from an infant and provide misleading feedback, interfering with the infant's construction of coherent working models and thus passing on an insecure attachment pattern to that infant. Steele and Steele (1994) provided a thorough account of the resulting ill-organized and contradictory working models for a single caregiver which an infant may come to hold as a result of such early experiences.

Collins and Reed (1994) examined the hypothesized structure and function of working models in some detail. They concluded that adult representations of attachments are best construed as a network of interconnected models organized as a default hierarchy, with the most generalized representations at the top, models

corresponding to different kinds of relationships in the middle region, and models representing specific relationships at the bottom. Early in development, representations of specific relationships with primary caretakers result in the formation of more abstract, general models. These general models then influence the construction of more specific models in subsequent relationships. New relationship-specific models continue to exert a refining influence on general models, but any one relationship is unlikely substantively to alter a higher order model. Thus, early attachment experiences exert a formative influence on subsequent relationships. Collins and Reed (1994) also addressed the content of working models, proposing that they consist of: memories of attachment experiences; beliefs, attitudes, and expectations about the self and others with respect to attachment; attachment-related goals and needs; and strategies for achieving these attachment goals. In their view, working models of self and others are highly accessible cognitive structures which are automatically activated whenever events relevant to attachment issues occur. These models then directly influence both cognitive and emotional processing, which also interact with each other and then jointly determine behavioural response. Selective attention, memory encoding and retrieval, and inferential and explanatory processes are all influenced by working models, as are both primary (i.e., direct) and secondary (i.e., cognitively mediated) emotional appraisal. Thus, in this model, working models are heavily influenced by early experiences and also “shape how (individuals) construct their lives and how they find meaning in their personal and interpersonal experiences.” (p.83).

Research on Adult Attachment

Manifestations of the Adult Attachment Styles

Kobak and Sceery (1988) provided a description of personality characteristics associated with the three attachment styles in late adolescence. They found that secure individuals were: rated as more ego-resilient, less anxious, and less hostile by peers; reported little distress and high levels of social support; and reported having experienced available and supportive parenting without idealizing their parents. Dismissing (i.e., avoidant) individuals were: rated low on ego-resilience and higher on hostility by peers; reported more loneliness, distant relationships, and low levels of social support from their families; and were rated both as having experienced high levels of rejection from parents and as having limited recall of distressing childhood events. Preoccupied (i.e., anxious-ambivalent) individuals were: rated as less ego-resilient and more anxious by peers; reported high levels of distress while at the same time describing their families as more supportive than those of the dismissing group; represented parents as loving but role-reversing; and recalled distressing childhood events in a confused or incoherent manner but without cutting off the distressing affect.

Although Kobak and Sceery (1988) provided information about how individuals with different attachment styles differ from one another in adulthood, they were still primarily concerned with their subjects' relationships to their parents. A body of recent work, however, has signaled a shift in emphasis to individuals' relationships with their sexual partners.

Romantic Love as an Attachment Process

After Main and her coworkers (e.g., Main et al., 1985) extended the consideration of parent-infant attachment into adulthood, Hazan and Shaver (1987) took the next significant step of conceptualizing adult romantic love as an attachment process (i.e., considering attachment between peers rather than in a parent-infant dyad). Their survey study, based on the notion that attachment styles are essentially continuous across the lifespan and reflect mental models of self and relationships with others, asked adults about their most important love relationships. They found that their adult subjects were able meaningfully to classify themselves as secure, avoidant, or anxious-ambivalent, and that they did so in proportions similar to those reported for infants and children. Hazan and Shaver (1987) reported that, in their adult sample, they found proportional ratings of 56% secure, 25% avoidant, and 19% anxious-ambivalent. These results are identical to the frequencies reported more recently in an adult Israeli sample (Mikulincer, Florian, & Tolmacz, 1990), and are very similar to the 62% secure, 23% avoidant, and 15% anxious-ambivalent ratings reported by Campos, Barrett, Lamb, Goldsmith, and Stenberg (1983; cited in Hazan & Shaver, 1987) in their summary of American studies on infant attachment. In a later paper, Hazan and Shaver (1990) drew an interesting parallel between the functional similarity between love and work in adulthood and attachment and exploration in infancy, examining the different functions that work serves individuals with the various attachment styles.⁸ They have also elaborated on their view

⁸Preliminary support for this position has been provided by Hardy and Barkham (1994), who found that

that romantic love is the integration of three behavioural systems - attachment, (usually mutual) caregiving, and sexual mating - and that because attachment is the first of these systems to appear in the course of development, it lays the foundation for and shapes the expression of the other two (Shaver & Hazan, 1988). Shaver and Hazan (1987) also noted that they have found virtually no sex differences in attachment styles, and that they suspect that sex differences which do exist are found in the sexuality and caregiving domains only.

Hazan and Shaver have continued to explore the connection between the attachment, sexuality, and caregiving systems. Hazan and Zeifman (1994), for example, have elaborated on the similarities in physical contact patterns between partners in an attachment-caregiver relationship (i.e., mother and infant) and those in a sexual relationship. They have also noted how the evolutionary goal of maximal reproductive fitness offers an explanation for the link between the attachment and sexuality systems, and how the evolution of some human anatomical and physiological features facilitates attachment between sexual partners. Kuncze and Shaver (1994) presented research consistent with their position that caregiving is an integral component of attachment relationships in adulthood, describing how its manifestation varies across individuals in a manner consistent with their attachment style.

Following the work of Hazan and Shaver (1987), a number of researchers have

an anxious/ambivalent attachment style was associated with self-reported anxiety about work performance and workplace relationships, and that an avoidant attachment style was correlated with concerns over work hours, relationships at home, and social life.

examined adult romantic relationships from an attachment perspective, considering the utility of an attachment perspective for what has traditionally been formulated as research on love (e.g., Bierhoff, 1991; Hendrick & Hendrick, 1991). Drawing from these two theoretical domains, Levy and Davis (1988) compared lovestyles and attachment styles in a sample of 192 adults enrolled in a psychology of marriage course. They found that securely attached individuals endorsed positive relationship characteristics and constructive approaches to conflict, while the avoidant and anxious-ambivalent styles predicted negative relationship characteristics. Levy and Davis (1988) also concluded that neither theory of interpersonal styles (i.e., love or attachment) offered a complete accounting of the personality variables associated with relationship development and satisfaction. Sperling and Berman (1991) examined the relationship between attachment and one particular lovestyle, desperate love. They concluded that desperate love (they also called this state fusional anxious attachment) is the result of intense merger desires combined with an insecure attachment bond, and that it manifests differently in women and men. Although in both genders desperate love is associated with a dependent attachment style, in women this activates affiliative drives while in men it activates aggressive drives.

Attachment Style and Relationship Quality

Collins and Read (1990) conducted a series of studies which examined attachment style, working models, and relationship quality. In the first study, they

employed factor analysis to examine the dimensions underlying Hazan and Shaver's (1987) categorical measure of the three attachment styles. The resulting dimensions were identified as: the extent to which an individual is comfortable with closeness; the extent to which an individual feels she or he can depend on others; and the extent to which an individual is anxious or fearful about being abandoned or unloved. The second study was designed to examine relationships between attachment styles and general mental representations of oneself, others, and romantic relationships. Results indicated that secure subjects had a higher sense of self-worth, had greater social self-confidence, and were more expressive. They also viewed others as trustworthy, dependable, altruistic, willing to stand up for their beliefs, and having control over their lives. Finally, their lovestyle tended to be selfless rather than game playing, obsessive, logical, or friendship based. Anxious subjects tended to have more negative views of self, including lower sense of self-worth, lower social self-confidence, lack of assertiveness, and lack of sense of control. They also viewed others more negatively, seeing them as less altruistic, unable to control their lives, and complex and difficult to understand. Finally, they were more likely to have an obsessive, dependent lovestyle. The third study examined the impact of attachment style on ongoing dating relationships. Results indicated that individuals tended to be in relationships with partners who had similar views to their own of self and others, that descriptions of opposite-sex parents predicted attachment dimensions of partners, and that attachment dimensions of partners predicted relationship quality. A gender difference was noted for this last finding, with different attachment

dimensions proving predictive for men versus women. For men, greater anxiety in their female partners was associated with decreased relationship satisfaction, while for women, greater comfort with closeness and intimacy on the part of their male partners was associated with increased relationship satisfaction.

Feeney, Noller and their colleagues have undertaken a program of research which has focused on various aspects of relationship quality as a function of the attachment statuses of the participants. Feeney and Noller (1990), for example, examined attachment style in relation to self-esteem and quality of romantic relationships. Consistent with previously reported rates, Feeney and Noller (1990) found that 55% of their subjects described themselves as securely attached, while 30% endorsed the avoidant style and 15% endorsed the anxious-ambivalent style. They also found that, relative to both insecure groups, securely attached individuals were higher in self-confidence and more trusting in their relationships. The avoidant and anxious-ambivalent groups differed from each other in that avoidant individuals were, indeed, avoiders of intimacy in their relationships while anxious-ambivalent individuals were dependent and had a strong desire for commitment in their relationships. In another study, Feeney and Noller (1991) considered attachment style as predictive of individuals' descriptions of their romantic partners. They had undergraduate subjects who were currently in a dating relationship provide a five-minute verbal description of their partner, and then performed a content analysis on these audiotaped descriptions. Secure subjects in this study demonstrated intermediate levels of idealization of their partners, relatively

favourable attitudes towards their partners' families, and made more statements reflecting positive relationship characteristics. Avoidant subjects presented as experiencing a low level of emotional intensity, were focused on fun and enjoyment as the central quality of their relationships, and scored low on idealization, friendship, and couple orientation. Anxious-ambivalent subjects obtained the highest scores on idealization and made infrequent references to positive relationship characteristics. Feeney, Noller, and Callan (1994) examined the relationship between attachment style, communication, and level of marital satisfaction. They reported that the relationship between these variables was different for wives and husbands: for wives, there were moderately strong concurrent (but not predictive) relations between all three variables, while for husbands there was evidence of concurrent (and predictive) reciprocal effects of communication and marital satisfaction with attachment.

Other researchers have also considered various aspects of relationship satisfaction as a function of attachment status. In a study of undergraduate psychology students, Pistole (1989) found that subjects were distributed among the three attachment categories as follows: 58% secure; 23% avoidant; and 18% anxious-ambivalent. These rates are consistent with frequencies reported in other studies. Pistole (1989) reported that secure subjects indicated higher relationship satisfaction and were more likely to employ mutually focused, integrating (i.e., win-win, satisfying both partners and the relationship) conflict strategies than either the avoidant or anxious-ambivalent subjects. Secure subjects were also more likely to use compromise (i.e., win/lose-win/lose, with

each partner giving up something for the good of the relationship) than were anxious-ambivalent subjects. Anxious-ambivalent subjects were more likely than avoidant subjects to oblige their partner (i.e., lose-win, engaging in self-sacrifice while maintaining preoccupation with the partner and essentially ignoring goals). J. A. Simpson (1990) found that secure attachment was associated with: greater relationship interdependence; more frequent positive emotions and less frequent negative emotions; and higher levels of commitment, trust, and relationship satisfaction than either of the insecure attachment styles. His findings also suggested that an individual's attachment style was not highly contingent on the style of their current partner, lending support to the notion of attachment style as a relatively stable personal characteristic. Mikulincer and Nachshon (1991) reported that secure and ambivalent individuals were more disclosing, and felt better interacting with and were more attracted to a high-disclosing partner than was the case for those classified as avoidant. Secure individuals also demonstrated more disclosure flexibility and topical reciprocity than either the ambivalent or the avoidant individuals. Scharfe and Bartholomew (1995) reported that attachment representations (models of self and other) were related to the accommodation strategies employed by individuals in response to dissatisfying behaviour by their romantic partners. Specifically, individuals with a negative self-model were more likely to withdraw from their partners, and individuals with a negative other-model were more likely to use destructive than constructive (for the relationship) strategies.

Kobak and Hazan (1991) considered attachment in marital relationships, finding

that securely attached individuals promoted their spouses' ability to modulate affect in the service of maintaining effective and constructive communication in problem solving. Husbands were more insecure when wives were rejecting during problem solving, while wives were more insecure when husbands were poor listeners during problem solving. Cohn, Silver, Cowan, Cowan, and Pearson (1992) found that self-reported marital satisfaction was unrelated to adult attachment classification, but that insecure-secure and secure-secure dyads demonstrated less conflict than did insecure-insecure dyads, suggesting that a secure partner may provide a buffering effect against the effects of insecure attachment on a marital relationship.

As the preceding review makes clear, a secure attachment style has broad-ranging benefits both for the individual and for relationships in which that individual engages. Although the literature considered to this point has essentially examined attachment issues only in samples of people drawn from non-clinical populations, attention has also recently been brought to bear on how attachment issues are manifested in clinical populations. This work is examined in the next section.

Attachment, Personality Disorder, and Other Psychopathology

A number of authors have considered the connection between attachment and psychopathology. West, Rose, and Sheldon (1993) compared 110 volunteer psychiatric outpatients with 136 non-patient survey respondents on three scales of anxious attachment (feared loss, proximity seeking, and separation protest) in an attempt to

consider Bolby's (1973) suggestion that strong dependency need is best conceptualized as appropriate attachment desires amalgamated with anxiety about the other person's availability (i.e., accessibility and/or responsiveness). Sixty-four percent of their clinical sample met the criteria for an anxiety disorder, and 54% met the criteria for dysthymia. Each patient also met the criteria for at least one personality disorder diagnosis, most commonly dependent (48%), avoidant (36%), or borderline (34%). They found that all three of the anxious attachment scales did differentiate the clinical from the non-clinical sample, with feared loss yielding the largest difference. One gender difference also resulted, with female patients scoring higher than any other group on proximity seeking. West et al. (1993) interpreted this latter finding as consistent with the analyses of feminist theorists such as Chodorow (1978) and Gilligan (1982) that proximity seeking is more socially acceptable for females than for males. They noted that, with respect to their main finding, the attachment concept is beneficial in facilitating a distinction between normal attachment needs and the anxiety with which it is enmeshed in psychiatric patients.

West, Livesley, Reiffer, and Sheldon (1986) also utilized the concept of attachment to explain differences in susceptibility to stress and in propensities to use available social support. They concluded that attachment is likely to influence psychiatric illness by: creating non-specific vulnerability to stress, which predisposes one to symptom onset; influencing one's creation of social networks, which in turn influences availability of social support during times of stress; and influencing reactions to stress by

impacting on the individual's appraisal of stressors. Approaching this issue from the other direction, J. A. Simpson and Rholes (1994) offered an extended analysis of the impact of stress (both chronic and acute types) on attachment processes. Briefly, they argued that acute stress activates the attachment system through increasing both proximity needs and accessibility of mental models. Chronic stress also triggers proximity needs but, because the threat and anxiety are constant, prolonged and unresolved activation of the attachment system results. This in turn leads to an increase in baseline felt insecurity, which over time may generate an insecure attachment style. This analysis indirectly suggests one mechanism by which stress may influence mental health, mediated through the attachment system.

Attachment and Specific Types of Personality Disorder

In a recent study, West, Rose, and Sheldon-Keller (1994) examined the attachment patterns of individuals diagnosed with dependent or schizoid personality disorder. Using Bolby's categories of insecure attachment (compulsive careseeking, compulsive caregiving, compulsive self-reliance, and generalized anger toward attachment figures), they found that individuals diagnosed with dependent personality disorder were best characterized as demonstrating compulsive careseeking, and that those with schizoid personality disorder were more accurately classified as displaying compulsive self-reliance.

West and his colleagues have also considered the importance of attachment

issues in understanding individuals diagnosed with avoidant personality disorder (Sheldon & West, 1990) and with borderline personality disorder (West, Keller, Links, & Patrick, 1993). In the case of avoidant personality disorder, Sheldon and West (1990) argued that the diagnostic criterion of desire for affection and acceptance which was eliminated from DSM-III-R is an important criterion in considering this disorder. In their view, “the desire for but fear of attachment relationships is a more cogent criterion than social discomfort and timidity.” (p.597). With respect to borderline personality disorder (BPD), West, Keller et al. (1993) found that only 4 of 23 scales they evaluated were significantly related to BPD, and that these four scales (feared loss, secure base, compulsive care-seeking, and angry withdrawal) were each specifically related to adult attachment. They characterized BPD as involving a yearning for connection leading to enmeshment, which alternates with angry withdrawal when security needs are frustrated. Similarly, Melges and Swartz (1989) characterized the oscillating interpersonal behaviour of individuals diagnosed with borderline personality disorder as oscillations in attachment stemming from difficulties in regulating interpersonal distance.

Other researchers have also demonstrated interest in the connection between attachment and personality disorder. Livesley, Schroeder, and Jackson (1990), for example, concluded that attachment pathology is of etiological significance in dependent personality disorder. They described this disorder as comprised of two orthogonal factors, insecure attachment (including a strong need for the physical presence of the attachment figure, reduced coping when alone, and strong separation protest) and

dependency (including low self-esteem, submissiveness, and need for advice, reassurance, and approval). Insecure attachment thus reflects behaviours directed at a specific person, while dependency behaviours are more generalized, are not directed at a particular person, and are designed to elicit assistance, guidance, and approval. Moretti, Holland, and Peterson (1994) noted the similarity between descriptions of impoverished and/or abusive early experiences in the histories of both those exhibiting behaviour consistent with conduct disorder and those with insecure attachment. They formulated a description of conduct disorder which gives a primary place to the role of attachment as an organizing principle in the behavioural and affective sequelae of this condition, and also described a successful community-oriented intervention program based on attachment theory.

Attachment and Sexual Abuse

Alexander (1992) presented an elaborate accounting of attachment styles in members of families in which sexual abuse has occurred. She argued cogently that long-term effects of sexual abuse in adult survivors are best understood in the context of important attachment relationships extant at the time of the abuse. Alexander (1992) drew specific links between different attachment styles and various interpersonal problems, affect regulation, and disturbances of self. Briefly, the preoccupied individual is characterized by: idealization of partner combined with negative perception of self which leads to higher likelihood of revictimization and possible compulsive caregiving;

hypervigilance on attachment figures and ready access to negative memories and affects from childhood, leading to chronic depression and anxiety and a tendency to abuse alcohol; and chronic negative self-esteem. The dismissing individual is more likely to be characterized by: a sense of social isolation and estrangement from others manifesting from simultaneous dependency needs and lack of trust; possible compulsive sexuality; absence of childhood memories combined with idealization of parents and past; a debilitation in experiencing emotions and relying on others, but demonstrating covert evidence of fears and utilization of alcohol to suppress them; and an unaffected sense of self. The fearful individual is marked by extreme disorders of affect regulation, including post-traumatic stress disorder and dissociation. All three types are also at increased risk of experiencing relational difficulties with their own children.

In more recent work, Alexander (1993) examined the relationship between specific abuse characteristics, attachment, and long-term sequelae of sexual abuse. Using hierarchical regression analysis, she found that sexual abuse characteristics, especially early onset, predicted a number of long-term effects, including depression, intrusive thoughts, and decreased avoidance of memories of the abuse. Lack of secure attachment in adulthood predicted avoidance of memories and avoidant, dependent, self-defeating, and borderline personality disorders. Alexander and Schaeffer (1994) used cluster analysis to examine incestuous families, finding that families were classifiable into one of three types based on degree of father-domination and severity of sexual abuse, and that dissociation and personality disorders were particularly evident in survivors of

the family type with the highest domination and the most severe abuse. Alexander has also described an approach to psychotherapy with incest survivors based on a consideration of their adult attachment classification (Alexander & Anderson, 1994).

Attachment and Psychotherapeutic Issues

The relationship between attachment issues and more general psychotherapeutic considerations has been addressed by several authors. Sable (1992) encouraged a conceptualization of various psychiatric disorders as manifestations of Bolby's adult patterns of insecure attachment (anxious attachment, insistent self-reliance, insistent caregiving, and emotional detachment). In this view, conditions such as dependent personality disorder, histrionic personality disorder, agoraphobia, suicidal behaviour, conversion symptoms, and eating disorders are associated with anxious attachment. Insistent self-reliance is linked to depression, disordered mourning, psychosomatic symptoms, alcoholism, and suicide. Insistent caregiving manifests in depression, anxiety, and clinging behaviour. Finally, detachment is associated with borderline personality disorder, histrionic personality disorder, and narcissistic personality disorder. Sable (1992) recommended a therapeutic approach which emphasizes acting as a secure base for one's client and promotes the exploration of past and current attachment experiences in order to ameliorate these sorts of disorders.

Reflecting her view of the existence of inconsistent and disorganized working models of attachment in insecurely attached individuals, Bretherton (1990) emphasized

the need for therapists to work at several levels of their clients' working models, and to promote hierarchical reorganization and integration from several directions. Grotstein (1990) likened the therapist-patient therapeutic alliance to the mother-infant bonding-attachment process, describing the therapeutic alliance as the conduit through which the therapist "interactionally regulates" (p.172) the patient until she or he is confidently self-regulating. In addition, Dozier, Cue, and Barnett (1994) provided preliminary evidence that an appropriate match between client attachment style, therapist attachment style, and intervention facilitates positive therapy outcome. Specifically, they noted that securely attached case managers were better able than insecurely attached case managers to respond appropriately to variously attached clients, indirectly indicating that client attachment style is an important determinant of intervention impact.⁹ Piper et al. (1991) found that quality of object relations (in essence, an overlapping construct with attachment style) was a better predictor of therapeutic alliance and psychotherapy outcome than was recent interpersonal functioning. Horvath and Luborsky (1993) indicated that therapeutic attention towards the therapist-client relationship may be more beneficial than attention towards problem content, again implicating the importance of considering attachment issues.

Horowitz, Rosenberg, and Bartholomew (1993) found that different attachment styles corresponded with different interpersonal problems, which in turn had implications

⁹ This also recalls the finding by Cohn et al. (1992) that the presence of a secure partner in a marital dyad ameliorated against the negative impact of an insecure partner.

for response to therapy. Problems associated with being exploitable (most related to the fearful attachment style) were most amenable to treatment, while those related to being dominating, vindictive, or cold (found most often with the dismissing attachment style) were the least responsive to therapy. Shaver and Hazan (1987) noted that, at least for those who are avoidantly attached, assistance in working through painful repressed memories associated with poor received parenting seems to have a powerful curative effect on future relationships with one's own children. Ricks (1985), although not discussing therapy per se, suggested that change to problematic internal representations of early attachment experiences may only occur through emotionally corrective experience in relationships via: change in the same early relationships across time; repeated experience in a number of other relationships which disconfirms earlier experience; or a particularly strong emotional experience within a single relationship which disconfirms the internal representation. Therapy seems a particularly strong candidate to foster the last sort of experience, particularly if specific and informed therapeutic attention is directed at attachment-relevant issues.

Brief Summary of Issues Relevant to Attachment and Psychopathology

Although a solid body of empirical evidence is still some time away, there appears to be a sound theoretical rationale for expecting a link between attachment problems and disorders of personality, and a small number of early studies have demonstrated support for this connection. It has been suggested that insecure

attachment predisposes to mental health problems through creating vulnerability to stress, negatively affecting social support networks, and exacerbating appraisals of stress. Chronic stress, in turn, has been theoretically linked to chronic activation of the attachment system, resulting in unresolved attachment needs, and ultimately leading to a rise in baseline insecurity. These two pathways suggest that a vicious circle may be created between stress and insecure attachment, thereby further intensifying existing problems.

Attachment issues have also been implicated in some specific disorders of personality. Schizoid personality disorder has been described as compulsive self-reliance, which would appear to be one potential manifestation of the dismissing attachment style. Dependent personality disorder has been conceptualized as compulsive careseeking (perhaps a preoccupied attachment style), normal attachment infused with high anxiety, and a synthesis of insecure attachment with generalized dependency. The desire for but fear of attachment relationships, which sounds very much like a description of the fearful attachment style, has been implicated in avoidant personality disorder. Borderline personality disorder has been characterized as involving a problem with regulating interpersonal distance, which leads to oscillating cycles of enmeshment and angry withdrawal, perhaps reflecting oscillations in attachment style behaviours. A number of authors have highlighted the need for therapeutic attention to attachment issues when working with individuals who present with a range of problems, including disorders of personality.

As is probably apparent from the preceding review of the general attachment literature, a number of different ideas exist regarding how best to conceptualize and categorize adult attachment patterns. Some of these theoretical positions are examined briefly in the next section.

Theoretical Approaches to Categorizing Adult Attachment Styles

Main was at the forefront of early efforts to provide a classification system for adult attachment (George, Kaplan, & Main, 1984; cited in Main, 1990; Main & Goldwyn, 1988; cited in Bartholomew, 1990). Her Adult Attachment Interview focuses on adults' mental representations of their own early childhood attachment experiences and the quality of their relationships with their parents from childhood through to the present. It is designed to allow the assigning of classifications (secure, dismissing, and preoccupied) which parallel the three original infant-mother attachment patterns described by Ainsworth (secure, avoidant, and anxious-ambivalent). As noted above, Hazan and Shaver (1987) extended this analysis to consider specifically adults' attachments to romantic peers, using the same three-category classification scheme¹⁰ (and self-reports rather than inferences from interviews). More recent work following

¹⁰See Bartholomew (1993) for a discussion of how, despite attempts both by Main and by Hazan and Shaver to create categories which explicitly corresponded to the infant attachment classifications, the adult classifications used by these two sets of researchers appear to be both conceptually different and measuring different states of affairs. This is particularly true for the dismissing style, where Main appears to be identifying those who would fit Bartholomew's dismissive-avoidant style, and Hazan and Shaver appear to be identifying those who are of Bartholomew's fearful-avoidant type. (See below for a further discussion of Bartholomew's model).

this model has indicated that a fourth category is needed to describe more comprehensively all observed outcomes. At the infant level, this category has been called disorganized (Main & Solomon, 1986; cited in Scharfe & Bartholomew, 1994) or avoidant/resistant (Crittenden & DiLalla, 1988); at the adult level it has been labeled unresolved (see, e.g., Main, 1990).

Crittenden (1993) offered an elaboration of Ainsworth's attachment patterns, integrating evolutionary and learning theory to explain her view of how specific attachment patterns develop. She differentiated the affective and cognitive impacts of various parenting styles on infant development, proposing that Ainsworth's patterns be reconceptualized as outcomes which reflect "patterns of mental processing of information that vary in the extent to which they integrate information based on cognition and affect to create models of reality" (p.53). When caregivers are consistent, they facilitate infants' ability to communicate and also promote infants' propensity to trust affective and cognitive routes of information. If caregivers are consistently positive, infants will develop positive cognitive expectations and use affective displays freely. These infants are competent with both cognitive organization and affective communication, and become securely attached. In the case of consistently negative caregiver reaction, infants can still make cognitive sense of their experience but are unable to interpret or use affective signals in a meaningful way. They learn to suppress affective displays and become avoidantly attached. Infants of inconsistent caregivers are unable to make cognitive sense of their experience but, because they are not punished for

affective displays and are on what is essentially an intermittent reinforcement schedule, continue to produce them at a high level of intensity. These are the infants who, in Crittenden's (1993) view, are affectively competent but not cognitively organized, and who become ambivalently attached. Crittenden (1993) provided an interesting and extensive hypothetical account of how these basic styles become further differentiated into a number of outcomes based on further learning experiences, and then are perpetuated (albeit with some maturational changes which can even lead to a change in quality of attachment) across the lifespan of the individual. Eventually, four main types,¹¹ subsuming perhaps twelve subtypes, are possible. This model is essentially a circumplex based on an affective and a cognitive axis, with both processes varying in the degree to which they are distorted from the true state of affairs. Crittenden applied her model to a theoretical analysis of potential adolescent/adult psychopathology associated with various attachment outcomes (Crittenden, 1993), and to a consideration of varying predispositions towards violence (Crittenden, 1994). Her model is elaborate and comprehensive, but remains largely theoretical at this point in time.

In response to her observation that individuals may avoid intimacy either because they are fearful of closeness *or* because they are indifferent to it, Bartholomew (1990) argued that avoidant individuals should be more precisely categorized as either fearful or dismissing. She (Bartholomew, 1990; Bartholomew & Horowitz, 1991) proposed a

¹¹The fourth main type, occurring in extreme cases, results when the individual can trust neither affect nor cognition and an inverted, anti-integration of the two processes results. Crittenden (1993; 1994) has suggested that this outcome is the basis for psychopathy.

different four category model based on two factors: an internalized model of self and an internalized model of other, both of which may be positive or negative.¹² These models are based on early experiences of being cared for and responded to (or not being adequately cared for and responded to) in childhood, and influence the individual's interpersonal behaviour in predictable ways. For example, an individual with a positive model of self and a positive model of other perceives her- or himself as essentially lovable and worthy of affection, and others as generally reliable in their provision of this affection. Such an individual will be primarily securely attached (in Bartholomew's model individuals actually receive four scores reflecting their similarity to each of the four attachment prototypes, only one of which is Secure), and she or he will demonstrate confident interpersonal functioning and comfort with intimacy. The remaining three prototypes are created by: a positive other-model combined with a negative self-model, which results in a preoccupied attachment style; a positive self-model combined with a negative other-model, which yields a dismissive-avoidant attachment style; and a negative self-model combined with a negative other-model, resulting in a fearful-avoidant attachment style. (See Figure 1).

A number of instruments exist for evaluating Bartholomew's model of adult attachment, including paper and pencil measures as well as a semi-structured interview (The Peer Attachment Interview). These measures are designed to assess the underlying

¹² This position, that models of self and other are independent of one another, is in contrast to the position of a number of other theorists (e.g., Bretherton, 1990) that these models are of necessity complementary.

		MODEL OF SELF	
		POSITIVE	NEGATIVE
MODEL OF OTHER	POSITIVE	SECURE	PREOCCUPIED
	NEGATIVE	DISMISSING	FEARFUL

Figure 1
Bartholomew's Four Prototype Model of Attachment

self- and other-models as well as similarity to the four prototypes. Griffin and Bartholomew (1994) found that Bartholomew's (1990) four attachment prototypes added predictive and interpretive power to the dimensions of self-model and other-model underlying her adult attachment model. Scharfe and Bartholomew (1994) reported good stability of Bartholomew's attachment patterns over an eight month period in a sample of 144 young adults, especially for the females in the sample. Using the interview measure, 45% of the women were classified as primarily secure at t_1 , 15% were rated as primarily fearful, 35% were classified as primarily preoccupied, and 4% were identified as primarily dismissing. Rates for primary classifications at t_2 were 49% secure, 13% fearful, 32% preoccupied, and 6% dismissing. Seventy-five percent ($k = .60$) of women were judged to have the same predominant attachment pattern at t_1 as at t_2 . Overall category ratings were, as can be seen, essentially unchanged. Rates obtained with self-report measures were similar. At t_1 , 51% were rated as primarily secure, 21% were classified as primarily fearful, 23% were classified as primarily preoccupied, and 5% were rated as primarily dismissing. Rates for primary classifications at t_2 were again essentially unchanged, at 50% secure, 21% fearful, 25% preoccupied, and 4% dismissing. Sixty-three percent ($k = .42$) of women were judged to have the same predominant attachment pattern at t_1 as at t_2 on the self-report measures. Of note, sex differences have also been reported when using Bartholomew's model, in contrast to Shaver and Hazan's (1987) position noted above that males and females do not differ on the dimension of attachment style. Bartholomew and Horowitz (1991) and Scharfe and

Bartholomew (1994) both found that females obtained higher Preoccupied scores than did males and that males obtained higher Dismissing scores than did females in their samples. Thus, the work of Bartholomew and her colleagues is more theoretically consistent with the self-in-relation view of female development discussed above than is that of Hazan and Shaver (1987).

Sperling, Berman, and Fagen (1992) offered yet another version of a four category model which purports to integrate attachment and psychoanalytic theories. They labeled their four categories as dependent, avoidant, hostile, and resistant-ambivalent. Sperling et al. (1992) suggested that these styles are the behavioural manifestations of dependence and anger resulting from the interaction of primitive relational drives, defenses, and interpersonal experience. These authors believe that security is best conceptualized as a separate, essentially orthogonal, dimension which is independent of the stylistic manifestation of attachment. They also believe that the primitive relational drives of affiliation and aggression (which they view as fundamental, relatively unmalleable structures arising secondarily to “the earliest relational position of the infant” [p.243]¹³) provide the two-dimensional matrix underlying attachment style. Thus, in this scheme: high affiliation (dependence) combined with high aggression (anger) results in a resistant-ambivalent attachment style; high dependence and low anger

¹³This position, although not fully elaborated, is consistent with the object relational position that object relations are primary and that affiliative and aggressive drives arise out of relational gratifications and frustrations. As noted in the earlier discussion of object relations theory, this position is essentially the converse of traditional Freudian drive theorists who believe that attachment to “objects” occurs as a result of frustration and gratification of the primary biological drives (especially hunger) by actions of the caregiver.

result in a dependent style; low dependence and high anger result in a hostile style; and low dependence and low anger result in an avoidant style. Again, these styles manifest independently of security of attachment, which is located on a separate dimension, leading to the possibility of a non-optimal attachment style in the presence of a perception of relationships as stable and enduring. Sperling et al. (1992) also suggested that mental representations of attachment are fairly stable over time within particular categories of interpersonal relationships, but that attachment behaviours are likely to vary across relationship categories and also across only a few points in time within the same type of relationship. They further suggested that such variability is most likely to be found in psychologically healthy individuals, because it is these people who will have developed the most differentiated, articulated, and integrated mental representations.

West and his colleagues utilized a construct-oriented approach to consider adult attachment (West, Sheldon, & Reiffer, 1987; West & Sheldon-Keller, 1992). Their Adult Attachment Dimensions Questionnaire has eight scales. The first four (secure base, proximity seeking, separation protest, and feared loss) are associated with the functional goal of achieving security. The fifth, reciprocity, is designed to evaluate the individual's willingness to be a *source* of support (and along with the first four scales is the set of criteria which distinguish adult attachment relationships). Three provisions of attachment relationships are also included (availability, responsiveness, and use of the attachment figure). Taken together, these eight factors characterize a reciprocal attachment relationship between adults. No attempt is made in this system to categorize

attachment styles *per se*.

Bartholomew's approach to classifying adult attachment appears to have particular merit in considering female offenders. First, it is associated with a body of empirical work which allows a comparison of attachment styles between female offenders and women from the general population. Second, her strategy of considering separately one's model of self and one's model of others seems ideally suited to a consideration of offenders. Individuals are arrested for a variety of crimes which differ in the degree of harm they cause to others. A model which clearly considers one's model of self and one's model of others may illuminate differences in offense patterns. It seems probable, for example, that women who engage in extremely antisocial (i.e., psychopathic) behaviour are more likely to be characterized by a dismissing attachment style (in which their positive regard for themselves is contrasted with a low regard for others) than by any other attachment style.

Personality Variables and Adult Attachment Styles: The Present Research

A number of points are apparent from the various literatures just reviewed. First, despite obvious recent increases in the amount of theoretical and empirical attention paid to female offenders, many observers continue to argue that we do not know enough about incarcerated women to make appropriate programming decisions for their care. Concerted effort is still required to improve our understanding about the intra-individual, interpersonal, and situational variables which contribute to women's decisions to engage

in criminal activities. Much of the literature on female offenders is suggestive of difficult life circumstances, especially abusive childhood experiences, as one formative influence. An examination of the lives of the women interviewed by E. K. Sommers (1995), for example, indicates a theme of extremely difficult beginnings which may have been at least as important as the reasons they identified (need, disconnection and influence of others, anger, and fear). Ten of the 14 women experienced extreme physical and/or sexual abuse, one experienced four very traumatic deaths within a short period of time at the age of nine, one was emotionally abandoned at home and abused at school, and one had an emotionally unavailable mother and a father who died early. Aside from these early life traumas, later difficult events were common in their stories. Trauma per se, however, does not create criminal behaviour. The question thus arises as to what mediating variables may be important in contributing to one's decision to offend.

A second point which is apparent from the foregoing review is that personality and attachment variables seem to be reasonable candidates as mediating variables with some explanatory power for offending behaviour. Personality variables and adult attachment styles both appear to offer important information regarding interpersonal functioning. In addition, preliminary evidence indicates that they do so in a non-redundant fashion. As noted above, Griffin and Bartholomew (1994) and Shaver and Brennan (1992) both found that attachment dimensions are not reducible to the (currently widely-accepted) Big Five personality factors, and that they add significant predictive power to personality scores in evaluating interpersonal problems. In other

words, information about an individual's adult attachment style is useful over and above measures of their personality in understanding interpersonal dysfunction.

A third point is that the high rates of personality disorder reported for female offenders implicate personality pathology as an important consideration in this population. Problems identified with the current nosological system (DSM), however, suggest that an alternative strategy for evaluating personality pathology is warranted. Livesley's dimensional approach appears to have much to recommend it in the present case. It is comprehensive, derived from a content analysis of the personality disorders as they are currently identified, and its dimensional nature reduces potential loss of information as well as being a theoretically more sound approach to considering personality pathology. In addition, his assessment instrument, the DAPP, is available in an interview as well as a questionnaire format, providing greater versatility of administration so that multi-method testing is more readily achieved.

A fourth point to be drawn from the above review is that attachment considerations may be particularly valuable in studying women. The self-in-relation model, which has garnered rather widespread acceptance particularly among feminist theorists, suggests that women normally develop a sense of self which is fundamentally defined by a caring for relationships with others. Some offender behaviour is clearly at odds with this orientation. Attachment measures may provide an indirect means of evaluating disruptions to this developmental pathway.

The research proposed here involves an attempt to examine personality

pathology and attachment style in a historically understudied population in which personality pathology and interpersonal dysfunction are extremely widespread, namely female offenders. This research is largely exploratory in nature. The first question to be addressed is whether female offenders differ from general population women on measures of personality pathology and attachment. It is predicted that, based on previously reported high rates of personality disorder among female offenders (e.g., Tien et al., 1993), a greater level of personality pathology will be found for the current sample of female offenders than would be expected for women from the general population. It is also expected that a greater proportion of women in the current sample will display insecure attachment patterns than has been reported for general population women by Bartholomew and her colleagues. A second major question is what relationship, if any, exists between pathological personality and attachment style. This question will be addressed by looking at the relationship between Bartholomew's (1990) four specific attachment styles and pathological personality as captured by Livesley's (1994) five higher order factors, as well as by looking at the relationships between other-model and self-model and pathological personality. A final question involves the relationship between problematic behaviours such as criminal history and drug use, and attachment and personality variables. It seems reasonable to expect, for example, that disorders of personality and of attachment will bear a non-random relationship to deviant interpersonal behaviour and self-medication tendencies.

METHOD

Participants

Participants for this study were recruited on a volunteer basis from the population of women incarcerated at the Burnaby Correctional Centre for Women (BCCW), a local prison which houses federally sentenced, provincially sentenced, remanded, and immigration-hold women in this province. In April, 1995, all women currently in residence at BCCW were mailed a letter which briefly introduced the study and asked if they would be interested in participating. Subsequent arrivals at BCCW who appeared likely to remain in the institution long enough to be contacted (i.e., those who were not due back in court within the next week or who were serving a sentence of less than one week) were also sent a letter which solicited their participation until a total of fifty women had completed an interview and questionnaire package. In total, 166 women were contacted by letter. Of these, 7 (4%) refused outright, 87 (52%) did not respond, and 72 (43%) agreed to participate or requested more information. Of the 72 women who expressed some interest in the study: 50 (69%) completed the interview and questionnaire package; 7 (10%) changed their mind, canceled their interview appointment, or did not show up at the scheduled time; 8 (11%) were released or sent out on the Electronic Monitoring Program (EMP) before their scheduled appointment; 5 (7%) were sent to the Open Living Unit and could not be contacted to set up an appointment; 1 (1%) was sent to segregation for disciplinary action and could not be contacted; and 1 (1%) spoke insufficient English to obtain informed consent. Ultimately,

thirty percent of the women who were sent a letter participated in the study.

Representativeness of the Sample

Although it was impossible to obtain an exact figure for the number of women who passed through BCCW during the time the study was in progress (statistics on admissions and discharges are maintained by front-line staff in the Records area and contain inconsistencies and errors, and repeat admissions are not distinguished from new ones), limited summary statistics were available from the institutional records. According to information provided by BCCW personnel, a total of 121 inmates were present in the institution (94 in secure custody and 27 in the Open Living Unit) on April 15, 1995. The initial mailing was sent out on April 19, 1995 to all 87 inmates who appeared likely to be in the institute long enough to participate. Again according to BCCW records, 111 admissions and 103 discharges occurred during May, 1995, and 88 admissions and 84 discharges occurred during June, 1995. A further 79 letters were mailed out during these two months, again restricted to those inmates who appeared likely to remain at BCCW long enough to participate. The interested reader can find summary statistics for admissions and discharges between January, 1995 and June, 1995 in Appendix A. These data provide a rough profile of the population of women from which the current study sample was drawn (albeit an incomplete one, as many of the sentenced women entered BCCW prior to January, 1995).

The 50 women comprising the sample for this study were drawn from a cross-

section of the inmate population. They included remanded (both awaiting trial and waiting sentencing), provincially sentenced, and federally sentenced individuals, and women being held on immigration charges. A number were returning to the institution after revocation of electronic monitoring privileges. Sixty-two percent of the women were serving a provincial sentence, 14% were serving a federal sentence, 22% were on remand, and 2% were being held on immigration charges. By comparison, data for all women admitted to BCCW during the first six months of 1995 indicated that approximately¹ 40% were serving a provincial sentence, 3% were serving a federal sentence, 55% were on remand, and 2% were on immigration hold. Although inadequate cell sizes for the federal sentence and immigration hold categories prevent statistical testing, rather large differences are apparent. One main difference between the sample and the BCCW admissions in terms of legal status was the proportionately low number of study participants who were on remand. This was likely due to the short stays (i.e., less than one week) of many remanded women which prevented them from receiving a request to participate, although it is possible that remanded women who were contacted may also have had less inclination to participate due to their transient status or uncertain future. Offsetting the lower number of remanded individuals, the study sample also contained a proportionately higher number of both federally and provincially sentenced women than the BCCW admissions. It should be noted that the comparison

¹ Figures for all women admitted to BCCW between January, 1995 and June, 1995 are calculated from admission figures kept by the institution, which contain some errors, inconsistencies, and multiple classifications.

being made here is between BCCW admissions over a six month period and the sample, rather than between the total BCCW “population” (which is in constant flux and for which data is unavailable) and the sample. In other words, although only 3% of women admitted to BCCW during the period considered were serving a federal sentence, it is likely that more than 3% of the women in BCCW on any given day are federal inmates, because once admitted they are in the institution for much longer periods of time on average than either remanded or provincially sentenced women and the admissions data used for comparison covers only a six month period. Thus, the sample is probably not as proportionately high in federally sentenced women as this comparison indicates.

Charge patterns for the study sample and for sentenced women admitted to BCCW in the first six months of 1995 are presented in Table 4. This comparison is limited by the fact that data on this measure are collected by institutional staff only for sentenced women entering BCCW, but the sample also includes individuals who have not been sentenced. In addition, it appeared that individual staff members had slightly different strategies for recording offenses, leading to inconsistencies and some errors in the data. Up to three different charges were tabulated for each woman in the study sample.² Charge patterns are intended to give a rough sense of the representativeness of

² Thus, for example, a woman with six fraud charges and an assault charge would be counted once for fraud and once for assault. Table 4 is intended to give a sense of the representativeness of charges only. Frequently individuals are remanded with many more charges than they ultimately receive convictions for, and often charges are reduced or thrown out during court proceedings. Thus, the charges in the sample column of this table are not identical to what would have been recorded for these women after all had been sentenced (even presuming all were eventually found guilty of at least one charge). In addition, failing to record multiple charges of the same type likely over-represents the proportion of violent charges in the sample because the true frequencies of non-violent charges are particularly likely

Table 4

Categories of Offence Types for All Newly Sentenced Inmates Admitted to BCCW During the First Six Months of 1995, and of All Inmates Included in the Study Sample

	Charge Types Recorded for Sentenced Women Admitted to BCCW Between January 1995 and June 1995	Charge Types Recorded for All Women (Both Sentenced and Unsentenced) Included in the Study Sample
Total Number of Inmates	233	50
Charges		
Violent Offences	28 (7.9%)	20 (21.3%)**
Property Offences	160 (45.3%)	39 (41.5%)
Non-Property Offences	139 (39.4%)	24 (25.5%)
Drug Offences	26 (7.4%)	11 (11.7%)
Total Number of Offences Recorded	353 (100.0%)	94 (100.0%)

Note: Category totals for institutional records are greater than total admissions due both to individuals being assigned to more than one category and to probable staff recording errors. (Note that total number of admissions of sentenced inmates indicated in Table 4 differs from that suggested by the information in Appendix A. Information contained in these two tables came from different sets of institutional records and staff could provide no information which would assist in determining which was more accurate or why the discrepancy existed).

** $p < .01$.

to be underestimated.

women in the sample on this measure only, but are not directly comparable and are neither completely reliable nor totally accurate. Thus, the chi-square analysis, although yielding significant results, should be considered with these limitations in mind, $\chi^2(3, N = 50) = 28.61, p < .01$. As can be seen, the main difference between the sample and the institutional data appears to be the somewhat greater proportion of violent offences and lower proportion of non-property offences committed by the participants in the study.

A small number of demographic variables are collected by the institutional staff on the women entering BCCW, including information on race, marital status, and education. A chi-square comparison of race based on the dichotomous categories of Caucasian and Non-Caucasian (including Native, Metis, and other) indicated that the sample was significantly different from the BCCW population on this variable, $\chi^2(1, N = 50) = 4.22, p < .05$. More of the women in the sample identified themselves as Non-Caucasian than was true for the BCCW population.³ Similarly, a Chi-square analysis of marital status based on the dichotomous categories of Single and Not Single (including married, common-law, separated, divorced, and widowed) indicated that the sample was significantly different from the BCCW population, $\chi^2(1, N = 50) = 5.44, p < .05$. The

³Race is typically identified by institutional staff on the basis of physical appearance. In contrast, the participants in the present study were directly asked about their ethnic heritage and any women stating that she had a combination of Native and non-Native ancestry was classified as Metis. This method likely increased the number of women classified as Metis and at the same time decreased numbers in both the Caucasian and Native Indian categories, because a number of women with both of these racial appearances identified themselves as having mixed ancestry. Thus, the evaluation being made here, comparing rates of Caucasian versus non-Caucasian individuals, may have been influenced by this difference in categorizing strategies and the sample is likely less different from the BCCW population on this measure than is indicated here.

difference in marital status proportions (i.e., more women in the study identifying themselves as in a relationship) may reflect a true difference between the sample and the population, or may reflect a greater willingness by the women to acknowledge to a researcher than to a correctional officer that they were cohabiting with someone (due to concerns over potential or pending welfare or other fraud charges, hiding the whereabouts of a spouse from authorities, etc.). With respect to education, a chi-square analysis using the dichotomous categories of elementary education and greater than elementary education indicated that the sample and the population were not significantly different on this variable, $\chi^2(1, N = 50) = 3.37, p > .05$. Results of these comparisons between the study sample and the BCCW population are summarized in Table 5.

In summary, based on the limited information available from staff on the population of women incarcerated at BCCW, there were some statistically significant differences between the study sample and the rest of the women in the institution. Specifically, the sample included proportionately more sentenced and fewer remanded women, individuals with proportionately more charges for violent offenses and fewer charges for non-property offenses, a greater proportion of women who identified themselves as in a relationship, and relatively more women of non-Caucasian heritage. It seems unlikely that these differences, although statistically significant, reflect large clinically meaningful differences between the sample and the population from which it was drawn, particularly given the errors contained in the population data and the limited nature of the comparisons made. The most robust difference is probably the low

Table 5

A Comparison of the Study Sample and the BCCW Population on Marital Status, Race, and Education

	Percentage of All Women at BCCW Between Jan. 1995 And June 1995	Percentage of Women Included in the Study Sample
Marital Status		
Single	42.3	26.0*
Married, Common-Law, Separated, Divorced, or Widowed	55.1	74.0
Unknown	2.6	0.0
Race		
Caucasian	67.6	54.0*
Non-Caucasian (Native Indian, Metis, or Other)	32.4	46.0
Education		
Elementary	12.2	4.0
Greater Than Elementary	84.5	96.0
Unknown	3.3	0.0

Note: Figures for the BCCW population are averages of the statistics on these variables collected by the institution over the first six months of 1995.

* $p < .05$.

proportion of remanded women in the sample, a difference with no obvious ramifications for potential generalizability of findings. It should be emphasized, however, that the limitations of the comparisons possible means that there are no grounds for assuming that the sample is truly representative of the population of all female offenders. Insufficient institutional information is available to make any such claim.

A number of demographic variables not available for the entire BCCW population were collected on the study sample and are presented in Table 6 for descriptive purposes only. As can be seen, the women comprising the sample tended to be Caucasian, heterosexual, in a relationship, and between 20 and 40 years of age. They were likely to have either 1 or 2 children, to have achieved at least some secondary education, to report problems with poly-substance abuse, and to have an annual income below \$20,000. (Those reporting they had higher incomes tended to indicate that their incomes were derived from the drug trade or from other illegal activities). Most of the women were raised in families in which early (and often, frequent) disruption and non-continuous parental care occurred. Of note, 88% of the women in the sample had been arrested previously, 62% of them 5 times or more.

Measures

Each participant was asked to complete a questionnaire package consisting of two attachment measures, the Relationship Questionnaire (RQ) and the Relationship Scales Questionnaire (RSQ), and a demographics questionnaire. (See Appendix B for a

Table 6
Summary of Demographic Information for the Sample

AGE	
MEAN	30.9
STANDARD DEVIATION	10.0
RANGE	18-66
RACE	
CAUCASIAN	54.0
NATIVE INDIAN	12.0
METIS	22.0
OTHER	12.0
EDUCATION	
ELEMENTARY	6.0
SECONDARY	78.0
POST-SECONDARY	10.0
UNKNOWN	6.0
INCOME	
\$0 - \$10,000	46.0
\$10,001 - \$20,000	22.0
\$20,001 - \$30,000	6.0
\$30,001 - \$50,000	8.0
OVER \$50,000	18.0
CONDITIONS RAISED IN	
STABLE (i.e., both parents)	24.0
SOME DISRUPTION (e.g., mother and step-father)	34.0
MODERATE DISRUPTION (e.g., step-parents only)	16.0
HIGH DISRUPTION (e.g., multiple familial caregivers)	2.0
MAXIMAL DISRUPTION (e.g., foster care)	24.0
SEXUAL ORIENTATION	
HETEROSEXUAL	84.0
LESBIAN	4.0
BISEXUAL	12.0
CURRENT MARITAL STATUS	
SINGLE	26.0
MARRIED OR COMMON-LAW	58.0
SEPARATED OR DIVORCED	14.0
WIDOWED	2.0
NUMBER OF CHILDREN	
MEAN	1.5
STANDARD DEVIATION	1.6
RANGE	0-5
PERCENTAGE WITH NO CHILDREN	38.0
SUBSTANCE ABUSE	
ALCOHOL - HEAVY	48.0
MODERATE	40.0
DRUGS - HEAVY	72.0
MODERATE	12.0

Note: Values shown are percentages unless otherwise indicated.

copy of the questionnaire package.) They were then interviewed using the interview version of Livesley's Dimensional Assessment of Personality Pathology (DAPP) measure. In addition, at a later date, ratings based on the interview, questionnaire, and institutional files were made using the screening version of the Psychopathy Checklist-Revised. A more detailed description of the attachment and personality measures follows:

The Relationship Questionnaire

The Relationship Questionnaire (RQ) is based on Bartholomew and Horowitz (1991). This is a questionnaire which consists of four short paragraphs which describe Bartholomew's four attachment patterns. Consistent with Bartholomew and Horowitz's (1991) original version, participants were first asked to identify which of the four paragraphs best described how they generally are in close relationships, and then to rate on a 7-point Likert scale the degree to which each description corresponded to their general relationship style. In an additional modification for this study, they were then asked to complete the same set of tasks for three specific relationships: the person at BCCW to whom they were closest; their current or most recent romantic partner; and their closest platonic friend outside of BCCW.

The Relationship Scales Questionnaire

The Relationship Scales Questionnaire (RSQ) was revised from Griffin and

Bartholomew (1994). This 38-item questionnaire consists of phrases from the paragraph descriptions of Hazan and Shaver's (1987) categorical measure, phrases from Bartholomew and Horowitz's (1991) categorical measure, three items developed by Collins and Read (1990), and eight experimental items recently added by researchers in Bartholomew's lab. Participants were asked to read each item and rate the extent to which it described their feelings about past and present romantic relationships on a 5-point Likert scale. The eight experimental items were not used in this study, and scoring followed the procedure described by Griffin and Bartholomew (1994).

Reliability of the RSQ. Mean inter-item correlations and reliability coefficients (Cronbach's alpha) were calculated for the four prototype scores of the RSQ. For the Secure prototype score, the mean inter-item correlation was .03 and $\alpha = .15$. The mean inter-item correlation for the Fearful prototype score was .15 and $\alpha = .42$. For the Preoccupied prototype score the mean inter-item correlation was .19 and $\alpha = .47$, and for the Dismissing prototype score the mean inter-item correlation was .06 and $\alpha = .22$. These values are somewhat low, especially for the Secure and the Dismissing prototypes. Cronbach's alpha values typically range from .45 to .60 in university samples, with somewhat lower values for the Secure prototype (E. Scharfe, personal communication, April 17, 1996).

The Dimensional Assessment of Personality Pathology-Interview Version

The Dimensional Assessment of Personality Pathology-Interview Version (DAPP-IV) was created by Livesley (1990). This measure is a semi-structured interview based on the original DAPP-BQ, a questionnaire version of the DAPP instrument. Both versions are designed to provide scores on each of Livesley's 18 personality factors. The DAPP-IV involves a series of primary and potential follow-up questions designed to elicit scoreable responses on the various components of the 18 factors. For example, the Low Affiliation item (one of the components of the Social Avoidance factor) asks, "Do you spend a lot of time with other people or do you prefer to spend your time alone?" Suggested follow-up questions, which may be pursued until a scoreable response is obtained, include: "Do you go out of your way to avoid people?"; "Will you decline invitations even if you have nothing else to do?"; "In social situations, do you prefer to stand back and watch rather than become involved?"; and, "If you see someone you know, do you go and say hello, or do you want them to come to you?" The interview includes a total of 69 items, with each factor being comprised of between two and seven items. Each item receives a score of 0 (not present), 1 (present at a sub-clinical level only), or 2 (present at a clinically significant level), and then factor scores are obtained by summing the scores for each of its component items.

Reliability of the DAPP-IV. The interrater reliability of the DAPP-IV results was evaluated by having a second rater listen to and score a subset of 15 (30%) of the

taped interviews. Interrater reliability was very high, ranging from $r = .84$ to $.97$ on the 5 higher order factors and from $r = .79$ to $.96$ on the 18 basic factors. The complete list of Pearson product-moment correlations is presented in Table 7. Factors are listed together under their higher order factors in this table for ease of comparison. Mean inter-item correlations were also acceptably high, ranging from $r = .35$ to $.57$ on the 5 higher order factors and from $r = .19$ to $.83$ on the 18 basic factors. Finally, reliability coefficients (Cronbach's alpha) ranged from $.67$ to $.85$ on the five higher order factors and from $.52$ to $.90$ on the 18 basic factors, indicating adequate content coverage and internal consistency of the DAPP-IV. A full list of inter-item correlations and Cronbach's alpha values are also included in Table 7.

The Psychopathy Checklist-Revised, Screening Version

The Psychopathy Checklist-Revised, Screening Version (PCL:SV) was created by Hart, Cox, and Hare (1995). The PCL:SV is a shortened 12 item version of the full 20 item PCL-R. It is a symptom-construct rating scale which yields both dimensional and categorical measures of psychopathy. The 6 items comprising Part 1 reflect the affective and interpersonal qualities of psychopathy, and the 6 items comprising Part 2 reflect the socially deviant behaviour typical of psychopathic individuals. Each item may be scored 0 (not present), 1 (present at a sub-clinical level only), or 2 (present at a clinically significant level). Two factor scores (for Parts 1 and 2) and a total score are computed; total scores over 18 are considered indicative of psychopathy.

Table 7

Interrater Reliability, Inter-item Correlations, and Internal Consistency for the DAPP-IV Higher Order and Basic Factors

FACTOR	INTERRATER RELIABILITY (r^a)	MEAN INTER-ITEM CORRELATION^b	INTERNAL CONSISTENCY (Cronbach's α^b)
LABILITY	.97	.45	.85
Affective Lability	.97	.49	.83
Anxiousness	.89	.26	.59
Identity Problems	.92	.36	.68
Insecure Attachment	.96	.53	.85
Passive Oppositionality	.90	.19	.42
Social Avoidance	.89	.46	.81
Submissiveness	.92	.48	.74
Suspiciousness	.88	.61	.75
ANTAGONISM	.93	.50	.74
Interpersonal Disesteem	.79	.30	.75
Narcissism	.95	.29	.52
Rejection	.95	.32	.66
COMPULSIVITY	.84	.43	.70
Compulsivity	.84	.43	.70
INTERPERSONAL UNRESPONSIVENESS	.97	.57	.67
Intimacy Problems	.89	.43	.69
Restricted Expression	.95	.49	.83
IMPULSIVE STIMULUS SEEKING	.93	.35	.69
Cognitive Distortion	.83	.39	.66
Conduct Problems	.93	.31	.64
Self Harm	.92	.83	.90
Stimulus Seeking	.93	.43	.69

Note: Higher order factors are printed in capital letters and their values are in bold.

^a $n = 15$ and $p < .001$ in all cases.

^b $n = 50$.

Reliability of the PCL:SV. Interrater reliability for the PCL:SV was assessed by having the same rater who provided a reliability check on the DAPP-IV also score the same tapes and materials for the PCL:SV. Pearson product-moment correlations were acceptably high (Part 1: $r = .80$, $p < .001$; Part 2: $r = .97$, $p < .001$; Total Score: $r = .93$, $p < .001$). Mean inter-item correlations were also acceptably high, with Part 1: $r = .59$, Part 2: $r = .60$, and Total Score: $r = .49$. Finally, reliability coefficients (Cronbach's alpha) were also high, with Part 1: $\alpha = .90$, Part 2: $\alpha = .89$, and Total Score: $\alpha = .92$.

Procedure

Women who agreed to participate in the study were contacted by telephone in order to arrange a mutually convenient time to complete an individual interview. Upon arrival, each participant was asked to read a consent form describing the research project, to ask any questions she might have, and then to sign the form if she was comfortable becoming involved in the study. (A copy of this consent form may be found in Appendix C.) It was explained that her signature authorized her participation in the study, including the completion of a questionnaire package and an audiotaped interview, and provided her permission for the researcher to conduct a review of her correctional files for information regarding her background and criminal history.

After providing her consent, each participant was first asked to complete the questionnaire package. The researcher remained in the room while this package was being completed in order to answer any questions the participant might have about any

of the questionnaire items. The interview was conducted after the participant completed filling out the questionnaire package. In one case, the interview triggered memories in a woman of a family death for which she had not completed her grieving process. The interview was halted at that point, and the focus shifted to providing support to her while she discussed this and other losses in her life. In a follow-up supportive session the next day, she indicated an interest in finishing the interview, so an appointment was scheduled for the following week and the interview was completed at that time. In a small number of other cases, women became upset during the interview as they thought about their children or other aspects of their lives, or became increasingly emotional simply through the process of openly talking to someone about their experiences. At these times, the interview was halted immediately, the tape recorder was turned off, and the focus shifted to addressing the woman's need in that moment. These intervals were generally short, and in every case the woman indicated a desire to return to and complete the interview before the session was over.

In the case of every participant, at the end of the interview the participant was briefly questioned regarding the impact of the session on her emotional state and was offered a follow-up session for the following week in order to discuss her individual questionnaire and interview results. In most cases, women accepted this offer to receive feedback. These sessions lasted between five minutes and one hour, depending upon each woman's interest in pursuing issues addressed in her feedback, with most feedback sessions being completed in one-half hour or less. Each woman was also offered a

feedback sheet on which she could provide anonymous feedback about her experiences with the research project (see Appendix D). The women were each paid \$5 for their participation.

RESULTS

Results of the Personality Measures

The Dimensional Assessment of Personality Pathology - Interview Version (DAPP-IV)

The Higher Order DAPP-IV Factors

Summarized results of the higher order DAPP interview factors for the sample are presented in Table 8 and Figure 2. As can be seen, high levels of various sorts of personality pathology were found in the sample. No one in the sample had a non-clinical score on Antagonism, and only one person (a different individual in each case) had a non-clinical score on Lability or on Impulsive Stimulus Seeking. Although 24% of the sample had a non-clinical score on Compulsivity, the average scaled score (obtained by dividing the raw score by the maximum possible score) on this factor was also quite high at .42, indicating that a significant portion of the sample had relatively high scores.¹ Impulsive Stimulus Seeking yielded the highest scaled score at .58. Interestingly, given that this is a forensic sample, Antagonism yielded the lowest average scaled score at .26.

The box-and-whisker plots in Figure 2 indicate the first and third quartiles (ends of the shaded boxes), minimum and maximum values (endpoints of the extended lines),²

¹Note, however, that this higher order factor has only one component factor and a small range of possible scores. Consequently, a more restricted set of pathological (or sub-pathological) characteristics was required to achieve an elevated score on this factor.

²In a small number of cases, outliers which fall more than three standard deviations beyond the mean are represented as circles lying beyond the indicated range. (See graphs for Antagonism and Impulsive Stimulus Seeking).

Table 8
Summary of Results for the DAPP-IV Higher Order Factor Scores

HIGHER ORDER FACTOR	% NON-CLINICAL (I.E., WITH SCORE = 0)	SAMPLE MEAN AND STANDARD DEVIATION	MEAN AND S.D. OF SCALED SCORE (RAW/MAX.)	SKEWNESS (g_1) AND KURTOSIS (g_2)
LABILITY	2	24.60 (14.58)	.49 (.24)	$g_1 = .35$ $g_2 = -.51$
ANTAGONISM	0	7.66 (5.99)	.26 (.20)	$g_1 = 1.14$ $g_2 = .99$
COMPULSIVITY	24	2.54 (2.10)	.42 (.35)	$g_1 = .24$ $g_2 = -1.36$
INTERPERSONAL UNRESPONSIVENESS	12	5.10 (4.52)	.32 (.28)	$g_1 = .80$ $g_2 = -.60$
IMPULSIVE STIMULUS SEEKING	2	13.88 (5.70)	.58 (.24)	$g_1 = -.36$ $g_2 = -.28$

Note: Clinical cutoffs are not available for the higher order factors, so rates of clinical scores are not calculable.

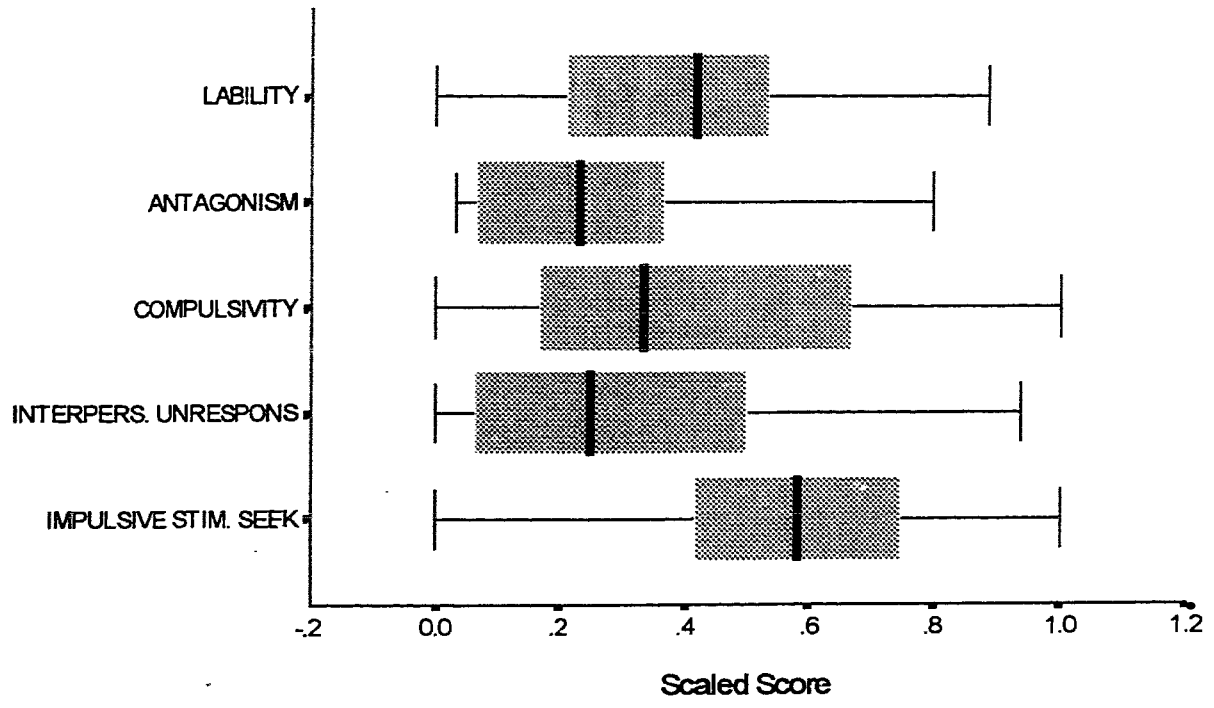


Figure 2
Box-and-Whisker Plots for the DAPP-IV Higher Order Factors

and medians (i.e., second quartiles - the dark line in each box) for each of the higher order factors. Data from a normal sample would be expected to have means and medians close to zero, modes equal to zero, and moderately highly positively skewed plots with quite high positive kurtosis. Rates above the clinical cutoff would be low, and non-clinical rates would be high. Results for this sample clearly deviate from this pattern. Although Antagonism most closely approximates this description, the mean and distribution even in this case are shifted from zero in the direction of greater pathology. The remaining factors deviate even more greatly from normal, with Impulsive Stimulus Seeking in particular displaying a positive shift of such magnitude that its skew is actually negative.

The Component DAPP-IV Factors

Data for the component factors of each of the higher order factors are displayed in Tables 9 through 13 and Figures 3 through 7. Rates of clinically significant scores on the various Liability factors indicated in Table 9 are high, ranging from 30% of the sample on Identity Problems and Social Avoidance to 72% of the sample on Suspiciousness. Rates of non-clinical scores on these factors ranged from 16% for Anxiousness to 34% for Submissiveness. Participants classified as neither clinical nor non-clinical had scores greater than zero and may be considered to have sub-clinical problems with respect to the factors in question. Thus, for example, on the Affective Liability factor, 18% of participants received a non-clinical score and 52% received a

Table 9
Summary of Results for the DAPP-IV Liability Factor Scores

FACTOR	% NON-CLINICAL (I.E., WITH SCORE = 0)	CLINICAL CUTOFF SCORE	% OVER CLINICAL CUTOFF	SAMPLE MEAN AND STANDARD DEVIATION	MEAN AND S.D. OF SCALED SCORE (RAW/MAX)	SKEWNESS (g₁) AND KURTOSIS (g₂)
AFFECTIVE LABILITY	18	5	52	4.80 (3.53)	.48 (.35)	g ₁ = -.02 g ₂ = -1.48
ANXIOUSNESS	16	4	56	3.52 (2.33)	.44 (.29)	g ₁ = -.14 g ₂ = -1.08
IDENTITY PROBLEMS	26	4	30	2.40 (2.20)	.30 (.28)	g ₁ = .77 g ₂ = -.11
INSECURE ATTACHMENT	22	5	42	4.02 (3.62)	.40 (.36)	g ₁ = .45 g ₂ = -1.28
PASSIVE OPPOSITIONALITY	18	3	40	2.28 (1.68)	.38 (.28)	g ₁ = .24 g ₂ = -1.12
SOCIAL AVOIDANCE	30	5	30	3.04 (3.14)	.30 (.31)	g ₁ = .77 g ₂ = -.79
SUBMISSIVENESS	34	3	32	2.12 (2.08)	.35 (.35)	g ₁ = .63 g ₂ = -.88
SUSPICIOUSNESS	20	2	72	2.46 (1.54)	.62 (.39)	g ₁ = -.55 g ₂ = -1.20

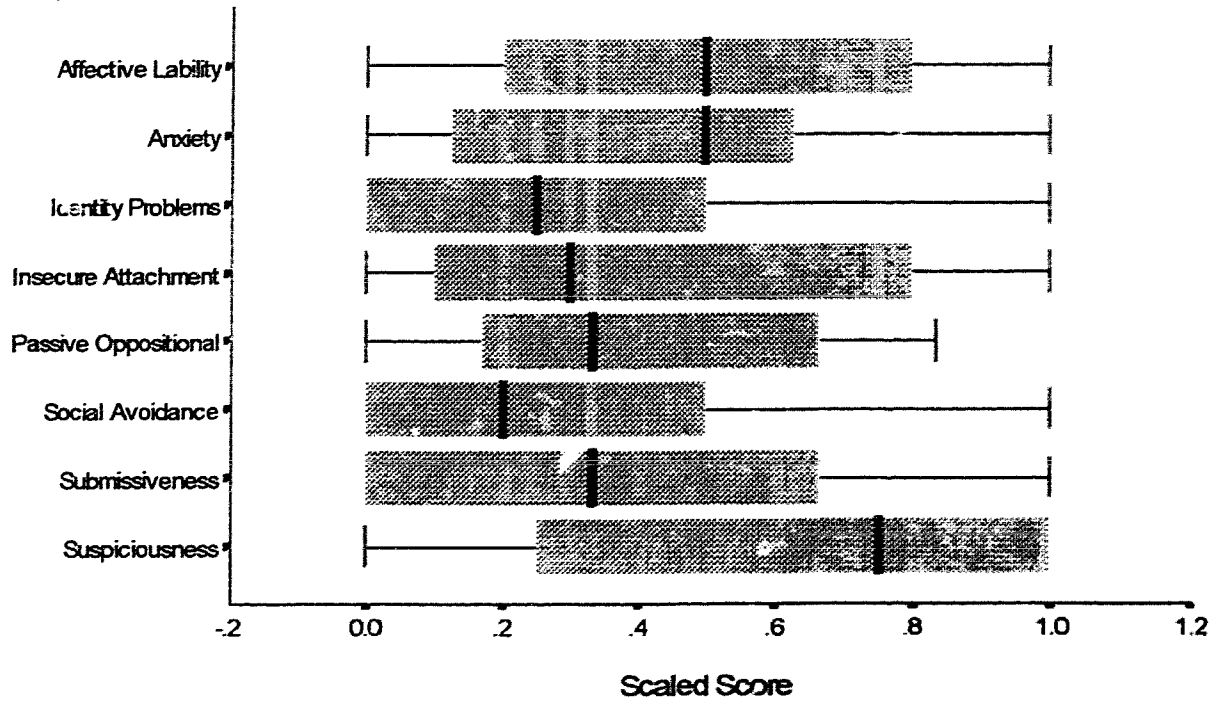


Figure 3
Box-and-Whisker Plots for the Lability Component Factors

Table 10
Summary of Results for the DAPP-IV Antagonism Factor Scores

FACTOR	% NON-CLINICAL (I.E., WITH SCORE = 0)	CLINICAL CUTOFF SCORE	% OVER CLINICAL CUTOFF	MEAN AND STANDARD DEVIATION	MEAN AND S.D. OF SCALED SCORE (RAW/MAX)	SKEWNESS (g_1) AND KURTOSIS (g_2)
INTERPERSONAL DISESTEEM	20	7	16	3.26 (3.10)	.23 (.22)	$g_1 = .93$ $g_2 = -.14$
NARCISSISM	22	4	16	2.02 (1.90)	.25 (.24)	$g_1 = 1.22$ $g_2 = 1.20$
REJECTION	22	4	22	2.38 (2.24)	.30 (.28)	$g_1 = 1.11$ $g_2 = .71$

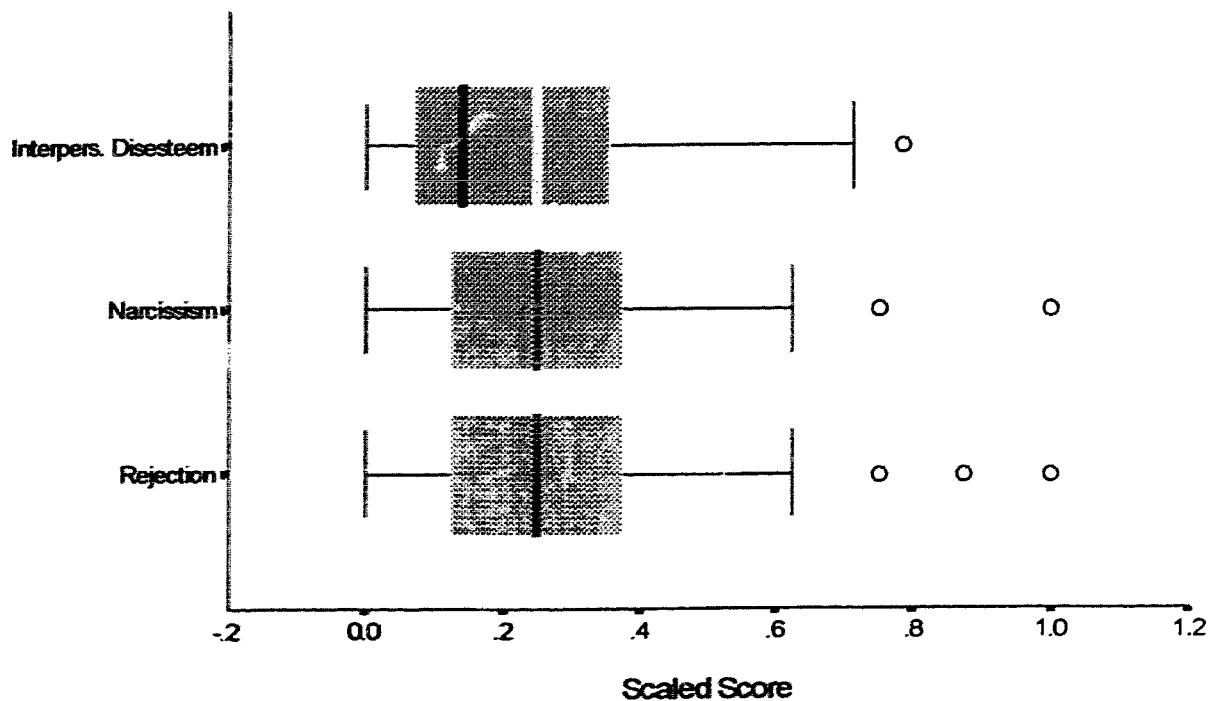


Figure 4
Box-and-Whisker Plots for the Antagonism Component Factors

Table 11
Summary of Results for the DAPP-IV Compulsivity Factor Score

FACTOR	% NON-CLINICAL (I.E., WITH SCORE = 0)	CLINICAL CUTOFF SCORE	% OVER CLINICAL CUTOFF	MEAN AND STANDARD DEVIATION	MEAN AND S.D. OF SCALED SCORE (RAW/MAX)	SKEWNESS (g_1) AND KURTOSIS (g_2)
COMPULSIVITY	24	3	46	2.54 (2.10)	.42 (.35)	$g_1 = .24$ $g_2 = -1.36$

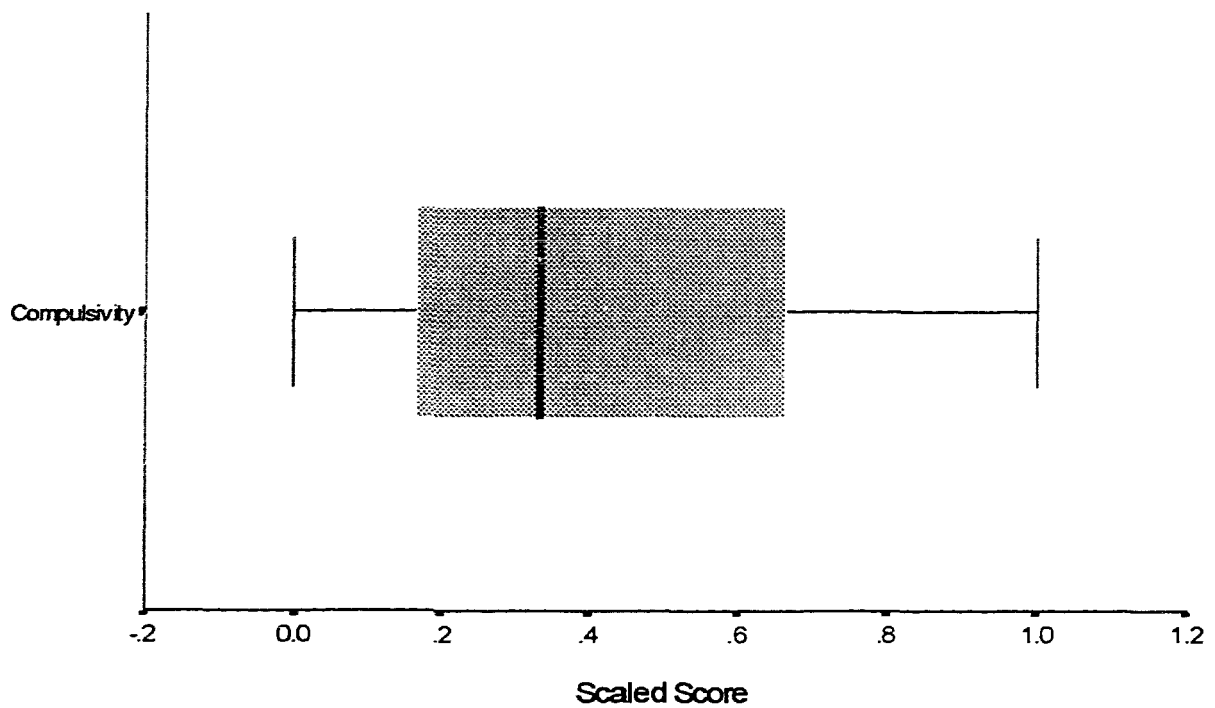


Figure 5
Box-and-Whisker Plot for the Compulsivity Component Factor

Table 12*Summary of Results for the DAPP-IV Interpersonal Unresponsiveness Factor Scores*

FACTOR	% NON-CLINICAL (I.E., WITH SCORE = 0)	CLINICAL CUTOFF SCORE	% OVER CLINICAL CUTOFF	MEAN AND STANDARD DEVIATION	MEAN AND S.D. OF SCALED SCORE (RAW/MAX)	SKEWNESS (g_1) AND KURTOSIS (g_2)
INTIMACY PROBLEMS	38	3	26	1.68 (1.88)	.28 (.31)	$g_1 = .97$ $g_2 = -.19$
RESTRICTED EXPRESSION	24	5	32	3.42 (3.18)	.34 (.32)	$g_1 = .57$ $g_2 = -1.01$

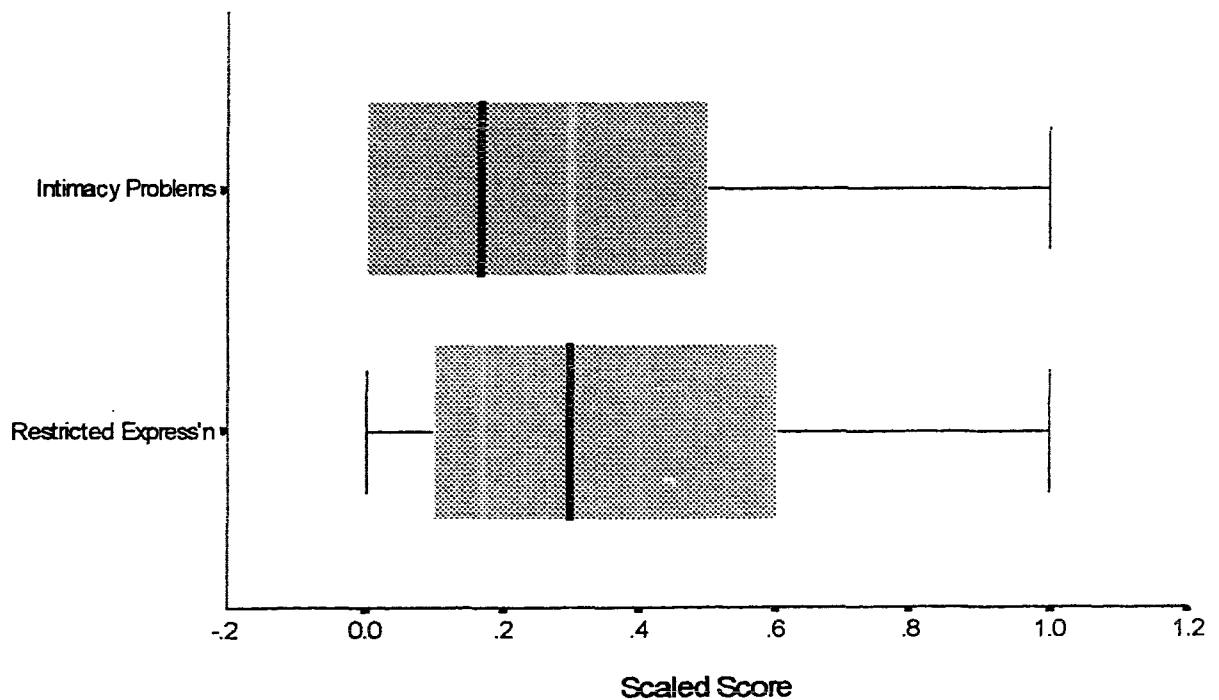
**Figure 6****Box-and-Whisker Plots for the Interpersonal Unresponsiveness Component Factors**

Table 13*Summary of Results for the DAPP-IV Impulsive Stimulus Seeking Factor Scores*

FACTOR	% NON-CLINICAL (I.E., WITH SCORE = 0)	CLINICAL CUTOFF SCORE	% OVER CLINICAL CUTOFF	MEAN AND STANDARD DEVIATION	MEAN AND S.D. OF SCALED SCORE (RAW/MAX)	SKEWNESS (g_1) AND KURTOSIS (g_2)
COGNITIVE DISTORTION	30	3	38	2.10 (1.96)	.35 (.33)	$g_1 = .57$ $g_2 = -.91$
CONDUCT PROBLEMS	2	4	88	6.04 (2.14)	.76 (.27)	$g_1 = -1.05$ $g_2 = .37$
SELF-HARM	30	2	56	2.12 (1.72)	.53 (.43)	$g_1 = -.12$ $g_2 = -1.77$
STIMULUS SEEKING	12	3	68	3.62 (2.08)	.60 (.35)	$g_1 = -.39$ $g_2 = -1.10$

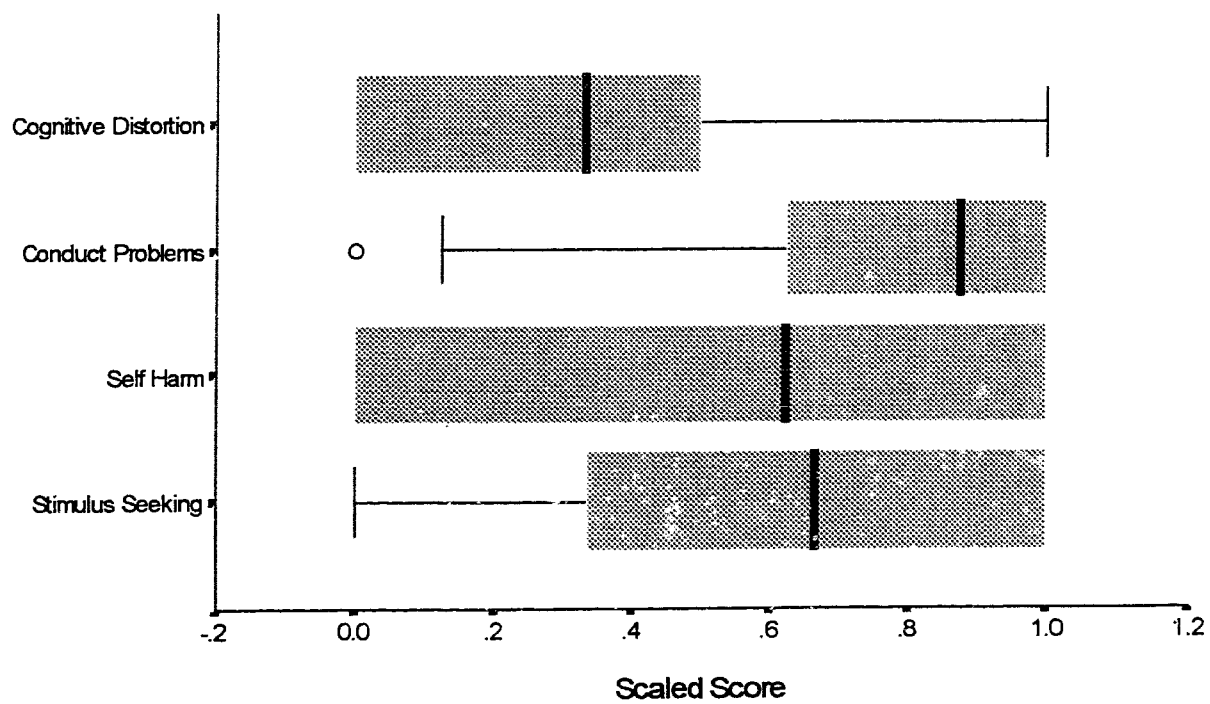


Figure 7
Box-and-Whisker Plots for the Impulsive Stimulus Seeking Component Factors

clinical score, meaning 30% of the participants had problems of a sub-clinical nature with the traits captured by Affective Lability. In all except three cases (Identity Problems, Submissiveness, and Social Avoidance), the first quartile falls above zero, indicating that a minimum of 75% of the sample had at least sub-clinical problems on the factor in question. Skewness is less than 1.0 in every case, and is actually negative for three of the factors (Affective Lability, Anxiousness, and Suspiciousness).

Table 10 and Figure 4 contain similar information for the Antagonism component factors. Rates of clinical problems are somewhat lower on these factors, with clinical rates ranging from 16% to 22% on each factor. Although none of the sample received a non-clinical score on the higher order Antagonism factor, 20% to 22% received non-clinical scores on each component factor. Conversely, as can be seen in Figure 4, at least 75% of participants received at least a sub-clinical score on each factor. All plots are skewed positively .93 or greater, and a number of high-scoring outliers are present.

Compulsivity is comprised of only one factor, and thus the higher order factor in this case is identical to its component factor. For the sake of consistency, however, it is presented in identical format to the other factors, with descriptive summary statistics provided in Table 11 and a box-and-whisker plot depicted in Figure 5. Twenty-four percent of participants received a non-clinical score, 46% received a clinical score, and 30% received a sub-clinical score on this factor. Skew is low and positive ($g_1 = .23$).

Within the higher order factor of Interpersonal Unresponsiveness, Restricted Expression received a slightly higher rate of clinical scores (32%) than did Intimacy

Problems (26%), and its plot is more dissimilar to what would be expected for a normal sample. Results for this set of factors may be found in Table 12 and Figure 6.

Finally, results for the Impulsive Stimulus Seeking component factors are displayed in Table 13 and Figure 7. Rates of clinical levels of Self Harm, Stimulus Seeking, and Conduct Problems were particularly high, at 56%, 68%, and 88%, respectively, and their plots were all skewed negatively ($g_1 = -.12$, $g_1 = -.39$, and $g_1 = -1.05$, respectively).

Relationships Between the DAPP-IV Factors

Pearson product-moment correlations were calculated between all of the DAPP-IV factors in order to evaluate the degree of relatedness between them. There were some significant correlations between higher order factors. In particular, Lability was highly positively correlated with both Interpersonal Unresponsiveness ($r = .51$, $p < .001$) and Impulsive Stimulus Seeking ($r = .63$, $p < .001$), and moderately highly correlated with Antagonism ($r = .44$, $p < .01$), although Impulsive Stimulus Seeking was also highly positively correlated with Antagonism ($r = .60$, $p < .001$) and moderately highly positively correlated with Interpersonal Unresponsiveness ($r = .41$, $p < .01$). (See Table 14).

Each of the component factors was correlated at least .55 ($p < .001$) with its respective higher order factor. In addition, however, a number of factors correlated highly with higher order factors of which they were not a component. Thus, for

Table 14
Correlation Matrix for the DAPP-IV Higher Order Factors

	LABILITY	ANTAG'ISM	COMPULS'TY	INTERPERS. UNRESPONS.	IMPULSIVE STIM. SEEK.
LABILITY	--	.44**	.07	.51***	.63***
ANTAG'ISM		--	-.18	.23	.60***
COMPULS'TY			--	.08	-.07
INTERPERS. UNRESPONS.				--	.41**
IMPULSIVE STIM. SEEK.					--

Note: $N = 50$ for all comparisons.

*** $p < .001$. ** $p < .01$.

example, although Compulsivity did not correlate strongly with any other factor ($r = -.29$ with Interpersonal Disesteem being the strongest relationship), each of the other higher order factors correlated .48 or higher with between two and five of their non-component factors. These relationships are listed in Table 15. Specificity of the component factors is indicated in Table 16, where the median correlations for the five higher order factors with all component and all non-component factors are displayed. Compulsivity shows the greatest specificity, with a median Pearson product-moment correlation with all non-component factors of .03. The other higher order factors have median correlations of .32 to .43 with their non-component factors, indicating some lack of independence between factors. A complete list of all inter-correlations for the DAPP-IV factors may be found in Appendix E.

Summary

The DAPP-IV results are consistent with the existence of high levels of personality pathology in the sample. Although 24% of the sample obtained a non-clinical score on the higher order factor of Compulsivity and 12% were non-clinical on the higher order factor of Interpersonal Unresponsiveness, only 2% scored in this range on the higher order Lability and Impulsive Stimulus Seeking factors and no one fell in this range on the higher order factor of Antagonism. Clinical scores on the various Lability factors ranged from 30% to 72%, with rates of over 50% on Affective Lability, Anxiousness, and Suspiciousness, and with 42% of the sample receiving a clinical score

Table 15

Inter-Correlations Between the DAPP-IV Factors Achieving Significance at the .001 Level

HIGHER ORDER FACTOR	r VALUES FOR ALL COMPONENT FACTORS	r VALUES FOR ALL NON-COMPONENT FACTORS WHERE $r \geq .48$
LABILITY	Affective Liability .78 Anxiety .83 Identity Problems .77 Insecure Attachment .73 Passive Oppositionality .77 Social Avoidance .70 Submissiveness .55 Suspiciousness .60	Conduct Problems .48 Interpersonal Disesteem .51 Restricted Expression .62 Self Harm .49
ANTAGONISM	Interpersonal Disesteem .88 Narcissism .71 Rejection .85	Affective Liability .50 Passive Oppositionality .48
INTERPERSONAL UNRESPONSIVENESS	Intimacy Problems .82 Restricted Expression .94	Anxiety .50 Identity Problems .53 Social Avoidance .60
IMPULSIVE STIMULUS SEEKING	Cognitive Distortion .74 Conduct Problems .84 Self Harm .63 Stimulus Seeking .66	Affective Liability .64 Anxiety .58 Identity Problems .49 Interpersonal Disesteem .61 Passive Oppositionality .63

Note. All correlations indicated are $p < .001$

Table 16

Median Correlations Between the DAPP-IV Higher Order and Sub-Factors (Including Both Component and Non-Component Factors)

HIGHER ORDER FACTOR	MEDIAN CORRELATIONS FOR ALL COMPONENT FACTORS	MEDIAN CORRELATIONS FOR ALL NON-COMPONENT FACTORS
LABILITY	.75 Range: .55 - .83	.43 Range: .07 - .62
ANTAGONISM	.85 Range: .71 - .88	.35 Range: -.18 - .50
COMPULSIVITY	n/a	.03 Range: -.29 - .18
INTERPERSONAL UNRESPONSIVENESS	.88 Range: .82 - .94	.32 Range: .05 - .60
IMPULSIVE STIMULUS SEEKING	.70 Range: .63 - .84	.43 Range: -.07 - .64

on Insecure Attachment. Among the Antagonism factors, clinical rates ranged from 16% to 22%, with the highest percentage of clinical scores being recorded for Rejection. Forty-six percent of the sample received a clinically significant score on Compulsivity. For the Interpersonal Unresponsiveness factors, 26% received a clinical score on Intimacy Problems and 32% received a clinical score on Restricted Expression. The Impulsive Stimulus Seeking factors yielded particularly high rates of pathology, ranging from 38% to 88%, with Self Harm, Stimulus Seeking, and Conduct Problems all over 50%. Lability was moderately to highly correlated with all except Compulsivity. In addition, Impulsive Stimulus Seeking was highly correlated with Antagonism and moderately highly correlated with Interpersonal Unresponsiveness.

Taken as a whole, the picture which emerges from the DAPP-IV results suggests that women in this sample tended to be individuals with a high level of emotional lability and reactivity who did not have the ability effectively to self-soothe or to modulate internally their affective experience, and were instead prone to stimulus seeking and acting out, either against themselves or against others (and frequently both). Distrust and suspiciousness about others' intentions was markedly high, and there was a relatively high degree of difficulty in openly and effectively communicating affective experience. (Recall clinical rates of 40% for Passive Oppositionality, 32% for Submissiveness, and 32% for Restricted Expression.) In addition, although organizational and coping skills were generally poor, many of the women had rather rigid expectations and standards, as evidenced by the high rate of clinically elevated Compulsivity scores.

The Psychopathy Checklist - Revised, Screening Version

Although not a primary interest in the present study, presence of psychopathy was evaluated in the present sample using the 12-item Screening Version of the Psychopathy Checklist-Revised (PCL:SV). Ratings for the 12 items of this measure were made based on information obtained from participants during the DAPP interview and from their completed questionnaire forms. In addition, institutional files were checked to obtain as much collateral information as possible. In the majority of cases, unfortunately, little or no file information was available. This paucity of file information, combined with the fact that the semi-structured interview utilized was not specifically tailored to examine information relevant to psychopathy, means that the PCL:SV results must be considered as somewhat tentative. The mean score for the sample on Part 1 was 4.64 ($SD = 3.75$, range = 0 to 12). Scores were higher on Part 2 ($M = 8.52$, $SD = 3.65$, range = 0 to 12). Total psychopathy scores ranged from 0 to 24, with a mean of 13.16 ($SD = 6.64$). Thirty percent of participants scored 18 or higher on the total PCL:SV. (A score of 18 is considered to be the cutoff indicating the presence of psychopathy.) Box-and-whisker plots for these three sets of scores are presented in Figure 8.

The current results differ somewhat from the norms provided by Hart et al. (1995), particularly for Part 1. Table 17 contains the PCL:SV manual norms derived from a small female forensic sample, as well as those based on the entire set of male and female forensic samples. T-tests comparing these two sets of norms with the current sample indicated that the current sample is significantly different from the female forensic

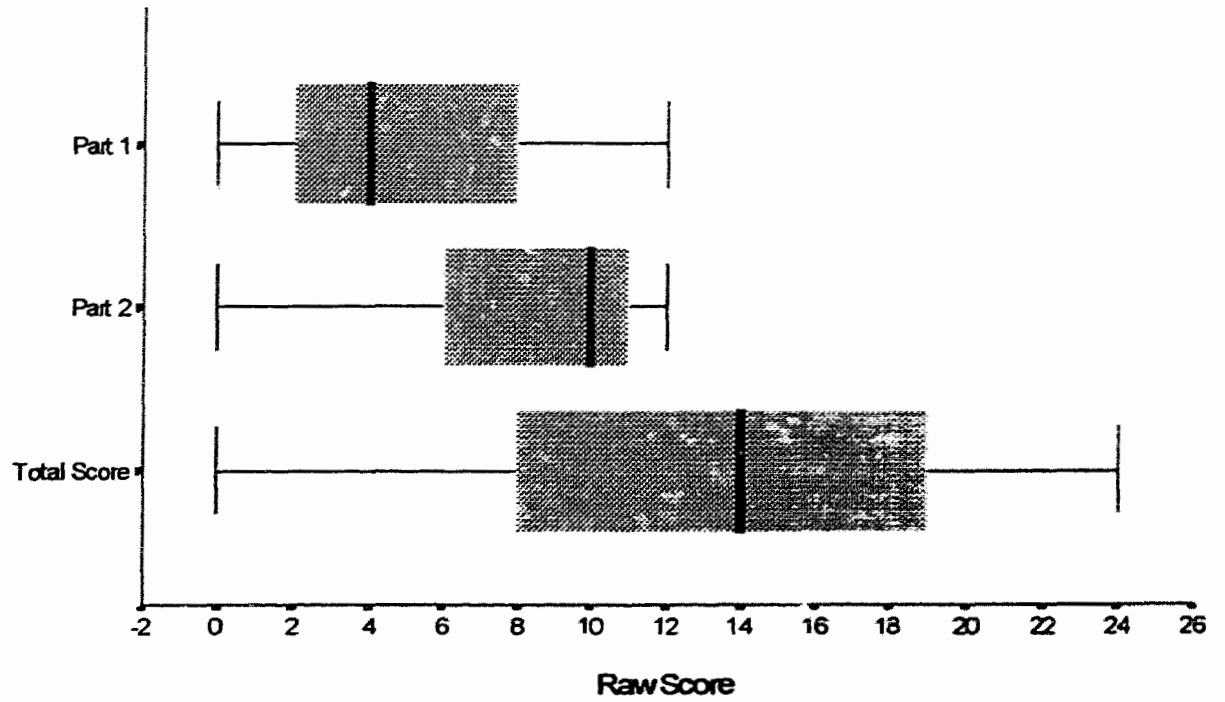


Figure 8
Box-and-Whisker Plots for the PCL:SV Scores

Table 17

Comparison of Current PCL:SV Results with Combined Forensic and Female Only Forensic Norms

	MEANS AND STANDARD DEVIATIONS FOR CURRENT SAMPLE (N = 50)	MEANS AND STANDARD DEVIATIONS FOR FORENSIC NORMS (MALES AND FEMALES) (N = 149)	MEANS AND STANDARD DEVIATIONS FOR FEMALE FORENSIC NORMS (N = 32)
TOTAL SCORE	13.16 (6.64)	15.05* (4.25)	16.41* (3.49)
PART 1	4.64 (3.75)	6.47*** (2.66)	7.30*** (2.35)
PART 2	8.52 (3.65)	8.58 (3.40)	9.11 (2.27)

*** $p < .001$. * $p < .05$

norms for Total Score, $t(80) = 2.55, p < .05$, and for Part 1, $t(80) = 3.58, p < .001$. In each case, the current sample means were lower than the female forensic norms. The current sample means for these two scores were also lower than for the combined male and female forensic norms, Total Score: $t(197) = 2.34, p < .05$; and Part 1, $t(197) = 3.77, p < .001$. This discrepancy may reflect a true difference between the current sample and the normative groups, or it may be due to differences in the interview portion of the data collection, as the normative results were based on the PCL interview and the current scores were based on the DAPP-IV interview. It thus may be argued that the DAPP-IV systematically underestimates the presence of interpersonal markers of psychopathy, or that its questions allow for a more accurate evaluation of these character traits than does the PCL interview. There were no differences between the current sample and either of the normative samples on mean Part 2 scores.

Relationship Between the PCL:SV and the DAPP-IV

In order to investigate the relationship between the DAPP-IV factors and the PCL:SV factors, Pearson product-moment correlations were computed between these two sets of scores. Table 18 contains the correlations between each DAPP higher order and component factor, and the psychopathy scores of Parts 1 and 2 and Total Score.³ These correlations should be interpreted conservatively, because the DAPP-IV and

³Correlations for Part 1 and Part 2 are partial correlations (i.e., the correlations between the various DAPP-IV factors and PCL:SV Part 1 are controlled for Part 2, and vice-versa).

Table 18
Correlations Between the DAPP-IV and the PCL:SV

DAPP-IV FACTOR	PCL:SV PART 1	PCL:SV PART 2	PCL:SV TOTAL SCORE
LABILITY	.10	.40**	.51***
Affective Lability	.17	.35*	.52***
Anxiousness	.08	.30*	.40**
Identity Problems	.09	.29*	.40**
Insecure Attachment	.25	.07	.35*
Passive Oppositionality	-.03	.43**	.44**
Social Avoidance	-.08	.37*	.32*
Submissiveness	-.23	.35*	.14
Suspiciousness	.15	.13	.31*
ANTAGONISM	.46**	.28	.67***
Interpersonal Disesteem	.28	.38**	.62***
Narcissism	.47**	-.02	.49***
Rejection	.35*	.17	.52**
COMPULSIVITY	-.09	-.04	-.14
Compulsivity	-.09	-.04	-.14
INTERPERSONAL UNRESPONSIVENESS	-.01	.39**	.41**
Intimacy Problems	-.20	.40**	.24
Restricted Expression	.11	.31*	.44**
IMPULSIVE STIMULUS SEEKING	-.14	.73***	.66***
Cognitive Distortion	-.01	.43**	.45**
Conduct Problems	-.31*	.76***	.59***
Self Harm	-.04	.27	.26
Stimulus Seeking	.00	.53***	.56***

Note. $N = 50$ in all cases. Correlations for Part 1 have been controlled for Part 2 and vice-versa.
 *** $p < .001$. ** $p < .01$. * $p < .05$.

PCL:SV ratings were not made completely independently of one another. (Recall that PCL:SV ratings were made based on the DAPP interviews, the questionnaires, and file information. Of these, the DAPP interviews were consistently the most important source of information). The overall pattern apparent from Table 18 is that the various Liability, Interpersonal Unresponsiveness, and Impulsive Stimulus Seeking factors are generally moderately to highly correlated with PCL:SV Part 2 and Total Score, Antagonism is moderately to highly correlated with PCL:SV Part 1 and Total Score, and Compulsivity is unrelated to the PCL:SV results.

Summary

PCL:SV results indicated that 30% of the sample met the criteria for psychopathy. Overall, however, scores on Part 1, the affective and interpersonal component, were generally much lower than those on Part 2, the behavioural component, and were also lower than expected based on the forensic norms provided by Hart et al. (1995). Thus, although results for the PCL:SV were consistent with a high degree of acting out, impulsivity, instability, and conduct problems, the hallmark personality qualities such as lack of remorse, callousness, and egocentricity associated with psychopathy were less in evidence in this sample. Not surprisingly, there was good conceptual agreement between the DAPP-IV and the PCL:SV. High Antagonism tended to be associated with high scores on Part 1 and Total Score, and high Liability, high Impulsive Stimulus Seeking, and high Interpersonal Unresponsiveness each tended to be

associated with high scores on Part 2 and Total Score. Compulsivity was uncorrelated with any of the three PCL:SV summary scores.

Results of the Attachment Measures

The Relationship Questionnaire

For the Relationship Questionnaire (RQ), on which participants were asked to choose from among four paragraphs the description which most accurately characterized their own relationships, 26% of the women identified themselves as Securely attached, 36% identified themselves as Fearfully attached, 20% identified themselves as Preoccupied, and 18% identified themselves as Dismissing. These results differ from previous findings reported by Scharfe and Bartholomew (1994),⁴ who found a greater proportion of Securely attached individuals in a sample of 80 university women. They employed both interview and self-report measures, both of which indicated that approximately 50% of their sample was Securely attached. Results for the RQ were as follows: 53% Secure; 21% Fearful; 20% Preoccupied; and 6% Dismissing. Their interview measure resulted in classifications of 48% Secure, 18% Fearful, 31% Preoccupied, and 4% Dismissing. (See Table 19.) A chi-square analysis comparing the present RQ results with Scharfe and Bartholomew's (1994) university sample RQ results was highly significant, $\chi^2(3, N = 50) = 24.23, p < .001$. A greater number of women in

⁴The Scharfe and Bartholomew (1994) results presented here are actually based on a slightly revised data sample of $N = 80$ (rather than $N = 77$) provided in a personal communication from E. Scharfe (April, 1996).

Table 19

A Comparison Between Current Results on the RQ with Results on the RQ and Attachment Interview Previously Reported for a Sample of University Women

ATTACHMENT CLASSIFICATION	PRIMARY CLASSIFICATIONS OBTAINED IN THE PRESENT STUDY (N = 50)	PRIMARY CLASSIFICATIONS REPORTED BY SCHARFE AND BARTHOLOMEW (1994) (N = 80)	
	RQ	RQ	INTERVIEW
SECURE	26% ^{***}	53%	48%
FEARFUL	36%	21%	18%
PREOCCUPIED	20%	20%	31%
DISMISSING	18%	6%	4%

Note. Interview results are presented for casual comparison only. Statistical analyses reported here were conducted using the reported results for the RQ only.

^{***} $p < .001$.

the present sample of incarcerated women classified themselves as Dismissing and as Fearful than did those women from the university sample, and a concomitantly fewer number identified themselves as Secure in their attachment style.

Part II of the RQ asked respondents to rate themselves on a Likert-type scale from one to seven to indicate the degree to which they believed that their close relationships were similar to each of the descriptive paragraphs in Part I, thus providing a dimensional score for each classification in addition to the single categorical choice provided in Part I. These dimensional scores are displayed in box-and-whisker plots in Figure 9. As can be seen, Fearful scores were elevated and Secure scores were broadly distributed, with a considerable portion of the sample at the low end of the range. These results are compared to the Scharfe and Bartholomew (1994) university data in Table 20. T-tests indicated that the mean scores for the current sample on the Secure, Fearful, and Dismissing categories were all significantly different from the previously reported results obtained from the non-forensic sample, Secure: $t(127) = 3.12, p < .01$; Fearful: $t(127) = 3.51, p < .001$; and Dismissing: $t(127) = 3.06, p < .01$. The current sample received lower mean Secure scores and higher mean Fearful and Dismissing scores than the comparison sample. There was no difference between the samples on Preoccupied score, $t(127) = 0.67, p > .05$.

The Pearson product-moment correlation matrix for all of the dimensional scores from Part II of the RQ, and the models of self and other derived from these scores, is presented in Table 21. As expected, opposite prototypes (i.e., Secure versus Fearful,

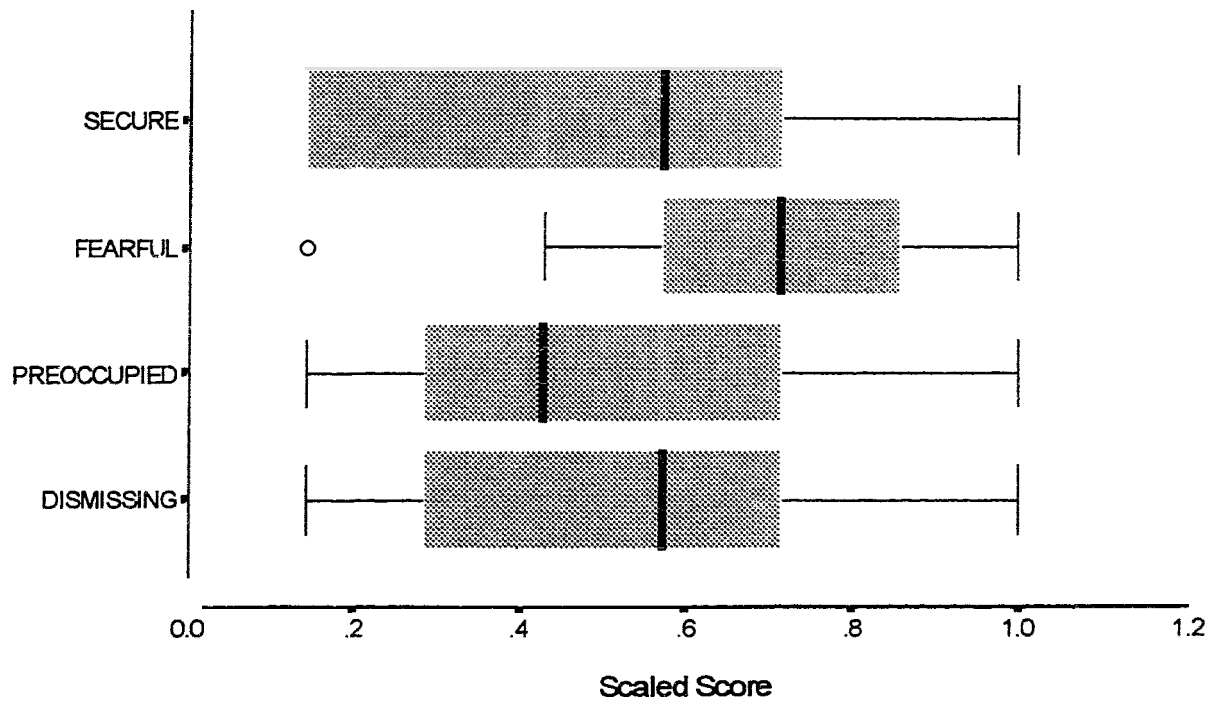


Figure 9
Box-and-Whisker Plots for the RQ Dimensional Scores

Table 20

Comparison Between the Current RQ Dimensional Scores and Those from a Non-Forensic Sample

ATTACHMENT CLASSIFICATION	CURRENT RQ RESULTS (N = 49)		RQ RESULTS REPORTED BY SCHARFE AND BARTHOLOMEW (1994) (N = 80)	
	RAW SCORE AND STANDARD DEVIATION	SCALED SCORE AND STANDARD DEVIATION	RAW SCORE AND STANDARD DEVIATION	SCALED SCORE AND STANDARD DEVIATION
SECURE	3.45** (2.24)	.49 (.32)	4.58 (1.83)	.65 (.26)
FEARFUL	4.65*** (1.94)	.67 (.28)	3.38 (2.03)	.48 (.29)
PREOCCUPIED	3.47 (2.03)	.50 (.29)	3.23 (1.95)	.46 (.28)
DISMISSING	3.67** (1.90)	.53 (.27)	2.70 (1.65)	.39 (.24)

*** $p < .001$. ** $p < .01$.

Table 21
Correlation Matrix for RQ Prototype Scores and Self- and Other-Model Scores

RQ	Secure	Fearful	Preoccup'd	Dismissing	Self Model	Other Model
Secure	--	-.43**	-.34*	-.07	.66***	.65***
Fearful		--	.39**	-.27	-.77***	-.41**
Preoccup'd			--	-.28	-.75***	.27
Dismissing				--	.52***	-.54***
Self Model					--	.12
Other Model						--

Note. All correlations based on $N = 49$, as one subject had incomplete data on this measure.
 *** $p < .001$. ** $p < .01$. * $p < .05$.

and Preoccupied versus Dismissing) yielded moderately large negative correlations. Comparisons of adjacent prototypes, expected to yield correlations approximating zero were moderately large and negative except for the Fearful-Preoccupied result which was moderately large and positive, and the Secure-Dismissing result, which did follow the expected pattern. Correlations of the prototypes with the self- and other-models were all large and in the expected directions, with the exception of the Preoccupied score, which appeared to be making a diminished contribution to the other-model results. The correlation between the self- and other-models was close to zero, again as expected.

The Relationship Scales Questionnaire

Results for the Relationship Scales Questionnaire (RSQ), a set of 38 Likert-type questions about an individual's experiences in relationships which yields dimensional scores for each of the four attachment styles, is displayed in box-and-whisker plots in Figure 10, where it can be seen that both Fearful and Dismissing scores are elevated. These results are again compared to the results obtained by Scharfe and Bartholomew (1994) in Table 22. T-tests between the two sets of RSQ scores indicated that the mean scores for the current sample on the Secure, Fearful, and Dismissing categories were all significantly different from the previously reported results obtained from the non-forensic sample, Secure: $t(128) = 3.24, p < .01$; Fearful: $t(128) = 8.50, p < .001$; and Dismissing: $t(126) = 4.93, p < .001$. As with the RQ, the current sample obtained lower Secure and higher Fearful and Dismissing scores on the RSQ, and there was no

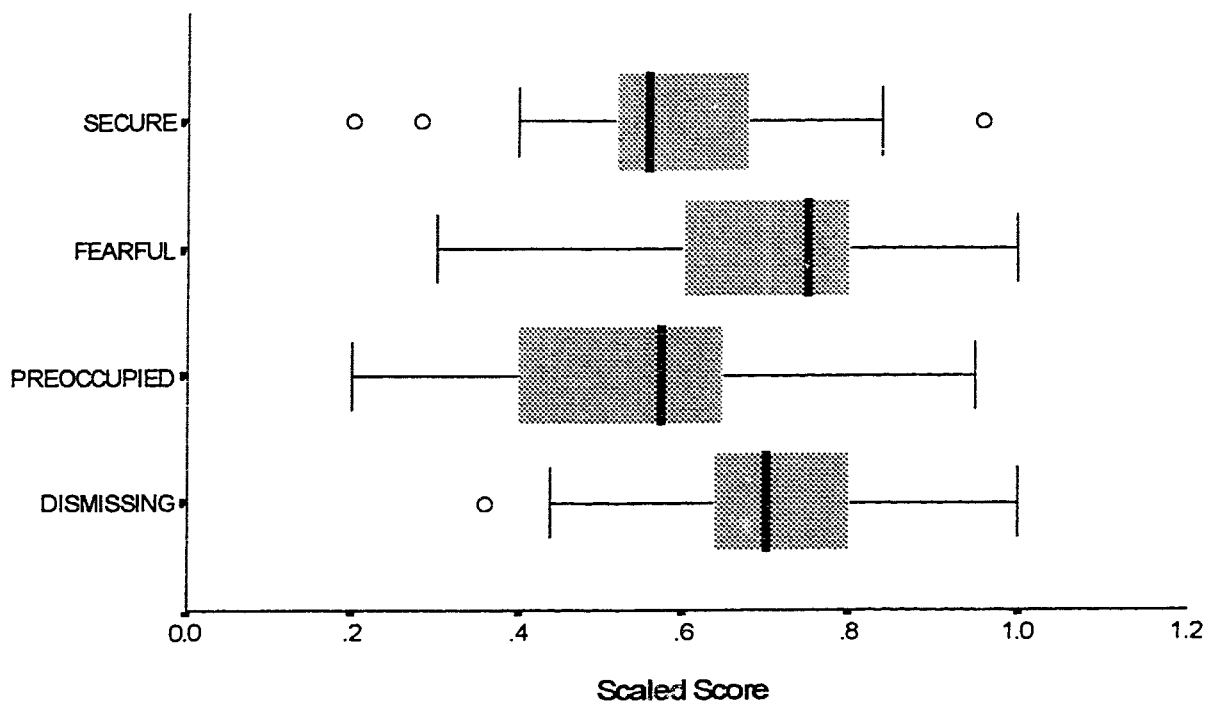


Figure 10
Box-and-Whisker Plots for the RSQ Dimensional Scores

Table 22
Comparison Between the Current RSQ Dimensional Scores and Those from a Non-Forensic Sample

ATTACHMENT CLASSIFICATION	CURRENT RSQ RESULTS (N = 50)		RSQ RESULTS REPORTED BY SCHARFE AND BARTHOLOMEW (1994) ^a	
	RAW SCORE AND STANDARD DEVIATION	SCALED SCORE AND STANDARD DEVIATION	RAW SCORE AND STANDARD DEVIATION	SCALED SCORE AND STANDARD DEVIATION
SECURE	2.92** (.68)	.59 (.14)	3.30 (.63)	.66 (.13)
FEARFUL	3.62*** (.79)	.72 (.16)	2.58 (.60)	.52 (.12)
PREOCCUPIED	2.76 (.87)	.55 (.17)	2.99 (.80)	.60 (.16)
DISMISSING	3.48** (.65)	.70 (.13)	2.86 (.72)	.57 (.14)

^a N = 80 for Secure and Fearful, N = 79 for Preoccupied, and N = 78 for Dismissing.

*** $p < .001$. ** $p < .01$.

difference between Preoccupied scores, $t(127) = 1.54, p > .05$.

The Pearson product-moment correlation matrix for all of the RSQ prototype scores, and the models of self and other derived from these scores, is presented in Table 23. As can be seen, correlations between opposite prototypes were moderately large and negative, as expected. Analyses of adjacent pairs yielded mixed results, with the Secure-Dismissing and Fearful-Preoccupied correlations near zero, as expected, and the Secure-Preoccupied correlation moderately large and negative and the Fearful-Dismissing correlation moderately large and positive. The correlation between the self- and other-models was essentially zero.

Agreement Between the RQ and the RSQ

There was moderate agreement between the RQ and the RSQ. Each individual's dimensional RSQ scores for the four attachment classifications was compared with their four dimensional scores on Part II of the RQ, in which, as described above, they were asked to choose a number between one and seven to indicate the degree to which they believed that each of the RQ descriptor paragraphs was representative of their own relationships. The Pearson product-moment correlation matrix for this comparison is presented in Table 24. (The interested reader will also find a table of all scaled scores for the current RQ and RSQ, as well as the Scharfe and Bartholomew, 1994, RQ, RSQ, and Interview results, in Appendix F.) Correlations between models of self and other based on RQ and RSQ results are also included in this table. It was expected that: all

Table 23
Correlation Matrix for RSQ Prototype Scores and Self- and Other-Model Scores

RSQ	Secure	Fearful	Preoccup'd	Dismissing	Self Model	Other Model
Secure	—	-.47**	-.23	.04	.72***	.46**
Fearful		—	.04	.39**	-.50***	-.73***
Preoccup'd			—	-.42**	-.74***	.53***
Dismissing				—	.41**	-.71***
Self Model					—	-.02
Other Model						—

Note: All correlations based on $N = 50$.

*** $p < .001$. ** $p < .01$.

Table 24
Correlations Between RSQ Scores and RQ Scores for the Four Attachment Prototypes and for Self- and Other-Models

RSQ \ RQ	RQ Secure	RQ Fearful	RQ Preoccup'd	RQ Dismissing	RQ Self Model	RQ Other Model
RSQ Secure	.34*	-.57***	-.31*	.08	.49***	.28
RSQ Fearful	-.24	.52***	.19	.00	-.35*	-.30*
RSQ Preoccup'd	.15	-.01	.39**	-.12	-.12	.35*
RSQ Dismissing	.06	.22	-.21	.24	.11	-.31*
RSQ Self Model	.18	-.36*	-.46**	.18	.44**	-.04
RSQ Other Model	.28*	-.52***	.06	-.12	.24	.52***

Note: All correlations based on $N = 49$, as one subject had incomplete data on the RQ. Bold type indicates comparisons between similar prototypes (e.g., RSQ Secure and RQ Secure).

*** $p < .001$. ** $p < .01$. * $p < .05$.

correlations between corresponding prototypes (e.g., RQ Secure versus RSQ Secure) would be moderately large and positive; all correlations between opposing prototypes (e.g., RQ Secure versus RSQ Fearful) would be moderately large and negative; all correlations between adjacent prototypes would be near zero; and results for the self- and other-models would be smaller than, but in the same direction as, those for the individual measures. As can be seen, results were mixed with respect to these expectations. Correlations between corresponding prototypes were all above .20 and positive, with all except the Dismissing pair achieving significance at at least the .05 level. Correlations between opposing prototypes were all negative and ranged from -.12 to -.57. Adjacent pairs yielded variable results. Although most correlations fell between $\pm .22$, RSQ Secure versus RQ Preoccupied was moderately high and negative ($r = -.31$; $p < .05$). All correlations involving the self- and other-models were in the expected directions.

The Exploratory RQ Measures

The standard version of the RQ asks respondents to evaluate their general orientation to close relationships, but this measure can also be modified to inquire about specific relationships. In the present case, participants were first presented with the standard version of the RQ, and then were asked to evaluate their relationships with: the person at BCCW to whom they felt closest; their current or most recent romantic partner; and their closest platonic friend outside of BCCW. Pearson product-moment

correlations were calculated for each standard version prototype score and its corresponding specific prototype scores (e.g. standard version Secure versus BCCW relationship Secure, etc.), and are presented in Table 25. (A more complete table listing all possible correlations is located in Appendix G.) The overall pattern of correlations here indicates that the scores for romantic relationship tend to be more highly correlated with the standard version results than either the scores for BCCW relationship or best friend outside of BCCW. The only exceptions to this pattern are found in the set of Preoccupied prototype scores and the BCCW relationship Secure score.

Raw dimensional prototype scores for the different versions may be found in Table 26. Repeated measures ANOVAs were significant for each of the four sets of prototype scores, Secure: $F(3,126) = 14.97, p < .001$; Fearful: $F(3,126) = 17.60, p < .001$; Preoccupied: $F(3,126) = 7.36, p < .001$; and Dismissing: $F(3,126) = 3.50, p < .05$. Post hoc pairwise comparisons with alpha set at .008 to control for the inflated error rate associated with multiple comparisons yielded a number of significant results. For the Secure prototype, the closest friendship version score was significantly higher than all others, romantic partner version: $F(1,42) = 8.26, p < .008$; closest BCCW relationship version: $F(1,42) = 24.29, p < .008$; and standard version: $F(1,42) = 46.62, p < .008$. The romantic relationship version score was also significantly higher than that for the standard version, $F(1,42) = 11.60, p < .008$. For the Fearful prototype, the standard version score was significantly higher than those for both the BCCW relationship and closest friendship versions, $F(1,42) = 33.48, p < .008$ and

Table 25

Correlations Between Specific Prototype Scores for the Standard Version of the RQ with the Exploratory Versions Utilized in this Study

Standard RQ Version	Exploratory RQ Versions		
	Closest Relationship at BCCW (N=46) ^a	Current or Most Recent Romantic Relationship (N=50) ^a	Closest Friend Outside of BCCW (N=48) ^a
RQ Secure	.46**	.41**	.30*
RQ Fearful	.20	.45**	.26
RQ Preoccupied	.45**	.43**	.60***
RQ Dismissing	-.11	.34*	.06
RQ Self Model	.25	.47**	.37*
RQ Other Model	.23	.53***	.15

Note: Only correlations within specific prototypes are indicated in this table (e.g., Standard version Secure with BCCW relationship Secure). A complete list of all possible comparisons may be found in Appendix G.

^a Correlations involve varying sample sizes due to missing data for a small number of subjects on various parts of the RQ. In particular, some subjects indicated they could not answer questions which referred to a close friend either within or outside BCCW because they had no such relationship.

*** $p < .001$. ** $p < .01$. * $p < .05$.

Table 26*Raw Scores and Standard Deviations for the Various Versions of the RQ*

	Standard Version of the RQ (N = 49)	Closest Relationship at BCCW (N=46)	Current or Most Recent Romantic Relationship (N=50)	Closest Friend Outside of BCCW (N=48)
SECURE^a	3.45 (2.24)	3.98 (2.39)	4.76 (2.42)	5.75 (1.71)
FEARFUL^a	4.65 (1.94)	2.63 (1.77)	3.82 (2.21)	2.46 (1.96)
PREOCCUPIED^a	3.47 (2.03)	2.20 (1.76)	3.42 (2.46)	2.56 (2.09)
DISMISSING^a	3.67 (1.90)	4.07 (2.16)	3.30 (2.18)	2.92 (2.21)

Note: Self- and Other- model scores are not shown because as composites they are not meaningfully comparable (i.e., the same score may be achieved many different ways).

^aRepeated measures ANOVAs for each prototype were all significant, with $p < .001$ for Secure, Fearful, and Preoccupied, and $p < .05$ for Dismissing. See text for more detail.

$F(1,42) = 35.30, p < .008$, respectively. In addition, the romantic relationship version score was significantly higher than those for both the BCCW relationship and closest friendship versions, $F(1,42) = 10.89, p < .008$ and $F(1,42) = 16.24, p < .008$, respectively. For the Preoccupied prototype, the standard version score was significantly higher than both the closest friendship and BCCW relationship versions, $F(1,42) = 10.20, p < .008$ and $F(1,42) = 19.54, p < .008$, respectively. In addition, the romantic relationship version score was significantly higher than the BCCW relationship score, $F(1,42) = 9.85, p < .008$. Finally, for the Dismissing prototype, the BCCW relationship version score was significantly higher than that for the closest friendship version, $F(1,42) = 10.17, p < .008$.

Summary

Fewer women in the current sample were classified as Secure in attachment style than would be expected for a sample drawn from the general population. Only 26% of the women were classified as Securely attached based on the RQ, about half the rate expected for a normal sample. Conversely, rates for the Fearful (36%) and Dismissing (18%) attachment styles were both elevated on the RQ, with the Fearful rate over 50% higher than normal and the Dismissing rate over three times higher than what would be expected in a normal sample. Dimensional scores from the RQ and the RSQ were consistent with this pattern, with Secure scores significantly lower and Fearful and Dismissing scores significantly higher than a non-forensic comparison sample. An

examination of the exploratory RQ measures suggests that individuals were tending to base their responses to the RQ largely on their feelings about their current or most recent romantic partner, and that there were significant differences between prototype scores for the various versions. The RSQ instructions explicitly requested that participants consider how they generally are in romantic relationships, so it seems a fairly safe generalization that the attachment measures utilized here were largely capturing respondents' feelings about romantic relationships rather than about close friendships when a relationship was not specified. Within-subject agreement between the two attachment measures was moderate, with correlations between similar prototypes generally positive but not as high as expected. Of note, women in the current sample tended to endorse at a high rate a range of items reflecting various types of insecure attachment, resulting in correlations between different prototypes which were sometimes different than those expected.

Relationship Between the Personality and Attachment Measures

Evaluation of Relatedness Between the DAPP-IV and the Attachment Measures

The relationship between the personality variables and the attachment variables assessed in this study was evaluated a number of ways. First, to consider the relatedness of the personality and attachment domains, Pearson product-moment correlations were calculated for each DAPP-IV factor (including both higher order- and component-level factors) and attachment variable (including prototypes and self- and other-models for

both attachment measures) pair. Surprisingly, Insecure Attachment as evaluated by the DAPP-IV was not highly correlated with any of the attachment measures provided by either the RQ or the RSQ. However, a number of other significant relationships did emerge. Among the higher order DAPP-IV factors, Liability was strongly negatively correlated with RQ self-model ($r = -.51, p < .001$) and Interpersonal Unresponsiveness was strongly negatively correlated with both RQ Secure ($r = -.49, p < .001$) and RSQ Secure ($r = -.53, p < .001$). Among the component DAPP-IV factors, Anxiety was strongly negatively correlated with RQ Secure ($r = -.52, p < .001$) and RQ self-model ($r = -.62, p < .001$), and strongly positively correlated with RQ Fearful ($r = .49, p < .001$). Identity Problems was strongly negatively correlated with RSQ self-model ($r = -.48, p < .001$). A number of other moderately strong relationships were also apparent. A full list of correlations is presented in Tables 27 and 28.

Evaluation of Redundancy Between the DAPP-IV and the Attachment Measures

In order to ascertain whether the attachment measures were adding information to that provided by the DAPP-IV, canonical correlation analysis was utilized to obtain redundancy indices for a number of comparison sets. The large number of DAPP-IV component factors prohibited their inclusion in this analysis, so the DAPP-IV was represented at the higher order level by the five higher order factors Liability, Antagonism, Compulsivity, Interpersonal Unresponsiveness, and Impulsive Stimulus Seeking. Canonical correlations were computed between this set of variables and: RQ

Table 27
Pearson Product-Moment Correlations Between the DAPP-IV Factors and the RQ

	Secure	Fearful	Preocc.	Dismiss.	Self-Model	Other-Model
LABILITY	-.40**	.32*	.39**	-.24	-.51***	-.07
Affective Lability	-.32*	.24	.18	-.10	-.32*	-.17
Anxiety	-.52***	.49***	.39**	-.27	-.62***	-.21
Identity Problems	-.27	.12	.29*	-.13	-.31*	.00
Insecure Attachment	-.12	.04	.22	-.30*	-.25	.18
Passive Oppositionality	-.34*	.25	.23	-.16	-.37**	-.13
Social Avoidance	-.39**	.40**	.36*	-.11	-.47**	-.18
Submissiveness	-.18	.13	.58***	-.18	-.40**	.23
Suspiciousness	-.27	.29*	.08	-.08	-.27	-.22
ANTAGONISM	.08	.09	-.07	-.31*	-.08	.12
Interpersonal Disesteem	.10	.13	-.03	-.31*	-.10	.13
Narcissism	.07	-.01	.02	-.25	-.06	.18
Rejection	.02	.07	-.17	-.17	-.01	-.03
COMPULSIVITY	-.12	.17	.16	-.01	-.18	-.07
Compulsivity	-.12	.17	.16	-.01	-.18	-.07
INTERPERS. UNRESPONSIV.	-.49***	.43**	.20	-.01	-.43**	-.39**
Intimacy Problems	-.47**	.35*	.10	.10	-.32*	-.45**
Restricted Expression	-.43**	.40**	.23	-.07	-.43**	-.30*
IMPULSIVE STIM. SEEKING	-.26	.32*	.21	-.20	-.37**	-.11
Cognitive Distortion	-.26	.26	.21	-.25	-.36**	-.05
Conduct Problems	-.22	.35*	.24	-.11	-.35*	-.12
Self Harm	-.17	.14	.06	.13	-.09	-.20
Stimulus Seeking	-.11	.17	.07	-.31*	-.24	.04

Note: $N = 49$ for all comparisons due to missing data for one subject on RQ.

*** $p < .001$. ** $p < .01$. * $p < .05$.

Table 28
Pearson Product-Moment Correlations Between the DAPP-IV Factors and the RSQ

	Secure	Fearful	Preocc.	Dismiss.	Self-Model	Other-Model
LABILITY	-.30*	.09	.25	-.39**	-.41**	.11
Affective Liability	-.10	.15	.06	-.22	-.22	.01
Anxiety	-.30	.18	.10	-.26	-.33*	-.05
Identity Problems	-.22	.18	.41**	-.32*	-.48***	.14
Insecure Attachment	-.07	-.16	.09	-.35*	-.13	.21
Passive Oppositionality	-.24	.16	.21	-.32*	-.38**	.05
Social Avoidance	-.42**	.04	.18	-.27	-.36*	.01
Submissiveness	-.25	-.05	.37**	-.41**	-.40**	.25
Suspiciousness	-.20	.16	.13	-.07	-.24	-.05
ANTAGONISM	-.10	.02	.06	-.26	-.17	.08
Interpersonal Disesteem	-.14	.18	.15	-.24	-.29*	.03
Narcissism	-.01	-.24	.10	-.32*	-.06	.26
Rejection	-.07	.00	-.12	-.08	.00	-.06
COMPULSIVITY	.13	-.13	-.16	.22	.26	-.05
Compulsivity	.13	-.13	-.16	.22	.26	-.05
INTERPERS. UNRESPONSIV.	-.53***	.25	.12	.03	-.36*	-.26
Intimacy Problems	-.45**	.15	-.04	.11	-.18	-.30*
Restricted Expression	-.49***	.27	.20	-.02	-.41**	-.20
IMPULSIVE STIM. SEEKING	-.30*	.13	.16	-.27	-.35*	.00
Cognitive Distortion	-.15	.07	.09	-.18	-.20	.02
Conduct Problems	-.33*	.14	.19	-.17	-.34*	-.03
Self Harm	-.17	.13	.10	-.35*	-.30*	.05
Stimulus Seeking	-.20	.04	.08	-.09	-.17	-.02

Note: $N = 50$ for all comparisons.

*** $p < .001$. ** $p < .01$. * $p < .05$.

prototype scores; RQ self- and other-model scores; RSQ prototype scores; and RSQ self- and other-model scores. In each case, only one canonical variate was significant and interpreted.

For the DAPP-IV and RQ prototype analysis, the first canonical correlation was .68, representing 46% of overlapping variance for the first pair of canonical variates. With all four canonical correlations included, $\chi^2 (20, N = 49) = 38.61, p < .01$. With the first canonical correlation removed, subsequent chi-square tests were not statistically significant. Therefore, the first pair of canonical variates accounted for the significant relationship between the DAPP-IV and the RQ prototype scores. Using a cutoff correlation magnitude of $\pm .40$, a high score on RQ Secure ($r = .90$) and low scores on RQ Fearful ($r = -.66$) and RQ Preoccupied ($r = -.63$), were related to low DAPP-IV scores on Lability ($r = -.67$), Interpersonal Unresponsiveness ($r = -.76$), and Impulsive Stimulus Seeking ($r = -.45$). The redundancy index indicated that the DAPP-IV was accounting for 12% of the variance in RQ prototype scores, and the RQ prototype scores were accounting for 19% of the variance in DAPP-IV higher order factor scores.

Results for the DAPP-IV and RQ self- and other-model analysis were similar to those for the DAPP-IV and RQ prototypes. The first canonical correlation was .64, representing 42% of overlapping variance for the first pair of canonical variates. With both canonical correlations included, $\chi^2 (10, N = 49) = 29.36, p < .01$. With the first canonical correlation removed, the next chi-square test was not statistically significant. Therefore, the first pair of canonical variates accounted for the significant relationship

between the DAPP-IV and the RQ self- and other-model scores. Using a cutoff correlation magnitude of $\pm .40$, high scores on both RQ self-model ($r = .88$) and RQ other-model ($r = .58$), were related to low DAPP-IV scores on Lability ($r = -.70$), Interpersonal Unresponsiveness ($r = -.84$), and Impulsive Stimulus Seeking ($r = -.55$). The redundancy index indicated that the DAPP-IV was accounting for 13% of the variance in RQ self- and other-model scores, and the RQ self- and other-model scores were accounting for 23% of the variance in DAPP-IV higher order factor scores.

For the DAPP-IV and RSQ prototype analysis, the first canonical correlation was .61, representing 37% of overlapping variance for the first pair of canonical variates. With all four canonical correlations included, $\chi^2 (20, N = 50) = 37.37, p < .05$. With the first canonical correlation removed, subsequent chi-square tests were not statistically significant. Therefore, the first pair of canonical variates accounted for the significant relationship between the DAPP-IV and the RSQ prototype scores. Using a cutoff correlation magnitude of $\pm .40$, high scores on RSQ Secure ($r = .65$) and RSQ Dismissing ($r = .70$) and a low score on RSQ Preoccupied ($r = -.50$), were related to a high score on Compulsivity ($r = .49$) and low scores on all of the other DAPP-IV higher order factors (Lability: $r = -.82$; Antagonism: $r = -.44$; Interpersonal Unresponsiveness: $r = -.49$; Impulsive Stimulus Seeking: $r = -.67$). The redundancy index indicated that the DAPP-IV was accounting for 13% of the variance in RSQ prototype scores, and the RSQ prototype scores were accounting for 12% of the variance in DAPP-IV higher order factor scores.

Finally, results for the DAPP-IV and RSQ self- and other-model analysis indicated that the first canonical correlation was .56, representing 31% of overlapping variance for the first pair of canonical variates. With both canonical correlations included, $\chi^2(10, N = 50) = 23.92, p < .01$. With the first canonical correlation removed, the next chi-square test was not statistically significant. Therefore, the first pair of canonical variates accounted for the significant relationship between the DAPP-IV and the RSQ self- and other-model scores. Using a cutoff correlation magnitude of $\pm .40$, a high score on RSQ self-model ($r = .99$) was related to a high score on Compulsivity ($r = .45$) and low scores on Liability ($r = -.71$), Interpersonal Unresponsiveness ($r = -.71$), and Impulsive Stimulus Seeking ($r = -.62$). The redundancy index indicated that the DAPP-IV was accounting for 10% of the variance in RSQ self- and other-model scores, and the RSQ self- and other-model scores were accounting for 15% of the variance in DAPP-IV higher order factor scores.

Table 29 contains a complete list of correlations for each of the first covariate pairs described in this section. As can be seen, the results are consistent with a general pattern of low DAPP-IV scores being positively correlated with a positive model of self and, to a lesser extent, a positive model of other. More specifically, the RQ results (both prototype and self- and other-model) reflect a strong positive correlation between very positive self- and other-models and low DAPP-IV scores on Liability, Interpersonal Unresponsiveness, and Impulsive Stimulus Seeking. The DAPP-IV and RSQ results reflect a stronger correlation for self-model than for other-model, with all DAPP-IV

Table 29

Correlations for Every Variable in Each of the First Canonical Variates Resulting from Analyses of the DAPP-IV with the RQ and RSQ

	DAPP-IV and RQ Prototypes	DAPP-IV and RQ Self- and Other-Models	DAPP-IV and RSQ Prototypes	DAPP-IV and RSQ Self- and Other-Models
DAPP-IV FACTORS				
Lability	-.67	-.70	-.82	-.71
Antagonism	.15	-.01	-.44	-.29
Compulsivity	-.27	-.28	.49	.45
Interpersonal Unresponsiveness	-.76	-.84	-.49	-.71
Impulsive Stimulus Seeking	-.45	-.55	-.67	-.62
ATTACHMENT MEASURES				
Secure	.90		.65	
Fearful	-.66		-.31	
Preoccupied	-.63		-.50	
Dismissing	-.03		.70	
Self-Model		.88		.99
Other-Model		.58		.12

Note. Correlations greater in magnitude than $\pm .40$ are indicated in bold type.

factors loading negatively except for Compulsivity.

Evaluation of Relatedness Between the PCL:SV and the Attachment Measures

The relationship between psychopathy and attachment was evaluated by calculating Pearson product-moment correlations between the three PCL:SV scores and the four prototype and self- and other-model scores for both the RQ and the RSQ. Correlations for Part 1 were controlled for Part 2, and vice-versa. PCL:SV Part 1 was, surprisingly, moderately positively correlated with RQ Secure score. PCL:SV Part 2 was moderately negatively correlated with the Secure prototypes and self-models of both attachment measures. PCL:SV Total Score was moderately negatively correlated with the RSQ Secure and RSQ Dismissing scores. The complete set of correlations may be found in Table 30. As can be seen, there was not particularly good conceptual agreement between the PCL:SV and either of the attachment measures. Of particular note, the Dismissing attachment style was not positively correlated with any of the psychopathy measures, and the other-model scores were not negatively correlated with psychopathy.

Summary

Correlations between the DAPP-IV factors and the two attachment measures were similar but not identical. Of note, the DAPP-IV factor of Insecure Attachment was significantly correlated only with the Dismissing attachment prototype (RSQ Dismissing:

Table 30
Correlations Between the Attachment Measures and the PCL:SV

ATTACHMENT MEASURE	PCL:SV FACTOR 1	PCL:SV FACTOR 2	PCL:SV TOTAL SCORE
<u>RQ</u>			
SECURE	.30*	-.29*	.02
FEARFUL	-.20	.26	.07
PREOCCUPIED	-.25	.26	.00
DISMISSING	-.23	-.01	-.26
SELF-MODEL	.21	-.31*	-.11
OTHER-MODEL	.25	-.16	.10
<u>RSQ</u>			
SECURE	.20	-.44**	-.29*
FEARFUL	-.26	.18	-.10
PREOCCUPIED	-.02	.16	.16
DISMISSING	-.21	-.09	-.33*
SELF-MODEL	.13	-.36*	-.26
OTHER-MODEL	.25	-.14	.13

Note: $N = 49$ for all analyses involving RQ and $N = 50$ for all analyses involving RSQ. Correlations for Factor 1 have been controlled for Factor 2 and vice-versa.

** $p < .01$. * $p < .05$.

$r = -.35, p < .05$; RQ Dismissing: $r = -.30, p < .05$). Thus, the RQ and the RSQ are evaluating security of attachment in a different way than is the DAPP-IV. Overall, the Liability factors tended to be negatively correlated with the Secure and the Dismissing prototypes and with the self-models, and to be either positively correlated or uncorrelated with the Fearful and the Preoccupied prototypes. The Antagonism factors tended to correlate only with the Dismissing prototypes, and did so negatively. Compulsivity was uncorrelated with any of the attachment measures. The Interpersonal Unresponsiveness factors yielded strong negative correlations with both Secure prototypes and both self-models, as well as strong positive correlations with RQ Fearful and strong negative correlations with RQ other-model. Finally, the Impulsive Stimulus Seeking factors followed a similar pattern to that for the Liability factors. Thus, the Secure attachment style was associated with emotional stability, interpersonal responsiveness, and relatively better impulse control. The Fearful prototype was weakly associated with emotional liability and interpersonal unresponsiveness. The Preoccupied prototype was somewhat associated with emotional liability and even more weakly with interpersonal unresponsiveness. The Dismissing prototype was associated with emotional stability, low antagonism, and impulsivity. The self-models were associated with emotional stability, interpersonal responsiveness, and relatively better impulse control. The other-models were associated only with a tendency for interpersonal responsiveness.

Redundancy between the DAPP-IV and the attachment measures was relatively

low. The DAPP-IV accounted for between 10% and 13% of the variance in the various RQ and RSQ prototype and self- and other-model scores. The various attachment measures, on the other hand, accounted for between 12% and 23% of the variance in the DAPP-IV, with the RQ measures accounting for more of the DAPP-IV variance than those derived from the RSQ.

The PCL:SV and the attachment measures demonstrated relatively poor logical agreement. The most consistent relationship was the finding that higher Secure prototype and self-model scores (as obtained from either the RQ or the RSQ) were associated with lower PCL:SV Part 2 scores. Unexpectedly, neither high Dismissing scores nor low other-model scores was significantly positively correlated with any of the psychopathy measures and, in fact, RSQ Dismissing was moderately highly *negatively* correlated with PCL:SV Total Score.

Lifestyle Variables in Relation to the Personality and Attachment Measures

To examine whether criminal history was related to the personality or attachment variables, age at first arrest, longest received sentence to date, and number of previous convictions were compared with: the five higher order DAPP-IV factors; the PCL:SV Part 1, Part 2, and Total Scores; and the prototype scores and self- and other-model scores for both the RQ and the RSQ. Pearson product-moment correlations indicated that age at first arrest was significantly negatively correlated with all three PCL:SV scores (Part 1: $r = -.34, p < .05$; Part 2: $r = -.63, p < .001$; Total Score: $r = -.54, p <$

.001). Age at first arrest was also significantly negatively correlated with the DAPP-IV factors Antagonism ($r = -.39, p < .01$) and Impulsive Stimulus Seeking ($r = -.60, p < .001$). Earlier ages of first arrest were associated with higher scores on the three PCL:SV scores, Antagonism, and Impulsive Stimulus Seeking. No significant relationships existed between age at first arrest and any of the other higher order DAPP-IV factors, any of the RQ measures, or any of the RSQ measures. No significant relationships existed between longest sentence received to date and any of the personality or attachment measures collected in this study. ANOVA tests indicated that number of previous convictions (coded as 0, 1, 2, 3, 4, 5 or more) was significantly associated with PCL:SV Total Scores, $F(5,43) = 2.66, p < .05$, and approached significance for PCL:SV Part 1, $F(5,43) = 2.25, p < .10$, and for PCL:SV Part 2, $F(5,43) = 2.39, p < .10$. Number of previous convictions was not significantly related to any of the other personality or attachment measures.

ANOVA results indicated that the attachment results were not significantly related to drug use, with the exception of the RSQ self-model, $F(2, 46) = 3.43, p < .05$. For the RSQ self-model, higher drug use was associated with lower self-model scores. Among the DAPP-IV higher order factors, Lability, Antagonism, and Impulsive Stimulus Seeking were all significantly related to drug use, Lability: $F(2, 47) = 5.62, p < .01$; Antagonism: $F(2, 47) = 4.93, p < .05$; and Impulsive Stimulus Seeking: $F(2, 47) = 20.24, p < .001$. In each case, higher drug use was associated with higher scores on these DAPP-IV factors. Drug use was also significantly related to the PCL:SV Part 2

and Total Scores, and approached significance for the PCL:SV Part 1 score, Part 2: $F(2, 47) = 16.39, p < .001$; Total Score: $F(2, 47) = 7.96, p < .01$; and Part 1: $F(2, 47) = 3.18, p < .10$. Again, in each case higher drug use was associated with higher scores on these PCL:SV scores. Degree of alcohol abuse was a less discriminating variable than drug use. None of the analyses for the attachment and personality variables yielded significant results for alcohol use.

A rudimentary indication of their childhood stability was obtained from participants by asking them to indicate by whom they were raised. Answers were coded into one of five categories: (1) Stable: usually both parents present; (2) Some disruption: raised by mother alone, mother and stepfather, or adopted by grandparents; (3) Moderate disruption: raised by stepparents alone, or bounced between mother and stepfather and grandparents; (4) High disruption: several caregivers involved in care; and (5) Major disruption: many bounces between caregivers, and often foster care. This variable, conditions raised in, was significantly related to a small number of the personality and attachment variables considered here. ANOVA results were significant for Impulsive Stimulus Seeking, $F(4,45) = 3.34, p < .05$, and approached significance for Lability, $F(4,45) = 2.54, p < .10$, and for Interpersonal Unresponsiveness, $F(4,45) = 2.40, p < .10$. Although there was some variability within each of these factors, the general pattern in each case was for DAPP-IV factor score to increase with increasingly disruptive family of origin. There was no relationship between conditions raised in and PCL:SV scores. The only attachment measure which was significantly related to

conditions raised in was RQ Secure, with no interpretable pattern evident in these results.

Summary

Criminal history bore only a limited relationship to the personality measures utilized in this study. Women with earlier ages at first arrest tended to score higher on all three of the PCL:SV component scores (Part 1, Part 2, and Total Score), and also to score higher on the DAPP-IV factors of Antagonism and Impulsive Stimulus Seeking. Women with greater numbers of previous convictions also tended to score more highly on the three PCL:SV component scores (although this relationship was significant only at the .10 level for Parts 1 and 2). Longest sentence failed to prove a significant variable in this study. None of these three measures of criminality (age at first arrest, number of previous convictions, and longest sentence received) yielded a significant relationship with either of the attachment measures employed. No significant relationships involving alcohol abuse emerged, but drug abuse was associated with higher scores on the DAPP-IV factors of Liability, Antagonism and Impulsive Stimulus Seeking and on the three PCL:SV scores (although only at the .10 level with Part 1), and with lower scores on RSQ self-model. Finally, increasingly disruptive family of origin was related to higher scores on Impulsive Stimulus Seeking, Liability, and Interpersonal Unresponsiveness (although only at the .10 level for the latter two of these factors). Surprisingly, the attachment measures were not significantly related to childhood disruption.

DISCUSSION

The following discussion will focus initially on general implications and concerns regarding research on personality variables (including psychopathy), on attachment variables, and on the relationship between these domains, and will then turn to a more specific consideration of the implications of the present findings for research, treatment, and policy decision-making involving female offenders. To facilitate this discussion, the main findings are first briefly summarized.

Recapitulation of the Main Findings

The 50 women who comprised the sample for this study appeared to be reasonably representative of the population of women incarcerated at BCCW from which they were drawn, but it should be emphasized that the basis for comparing the two groups was severely limited by the restricted information available for the full BCCW population. Thus, although there were no obvious identifiable problems with the representativeness of the sample, it cannot be conclusively stated that none existed. In addition, a cautionary statement is in order regarding the large number of correlations computed in this study relative to the sample size. A high number of statistical evaluations of data obtained from a relatively small sample of women, although justifiable on the grounds that this was an exploratory study, likely inflated the number of significant correlations found. With these caveats in mind, the results are briefly

reviewed below.

Consistent with previous descriptions of female offender populations reviewed in the Introduction, the women were characterized by low income, drug and alcohol abuse, relatively low levels of education and employment, and disrupted families of origin. Although the women were not directly asked about experiences of childhood sexual, physical, and emotional abuse due to concerns about the potential traumatizing impact of such questioning,¹ many of the participants made spontaneous comments about abusive experiences they had endured. These experiences ranged from childhood sexual and/or physical abuse to traumatizing experiences in adulthood such as being the victims of individual and/or gang rapes, violent beatings, stabbings, attempted murders, sexual exploitation, and long-term batterings. Just as the women were not strangers to difficult life circumstances, they were not unfamiliar with the judicial system. Most were repeat offenders, and over half had five or more previous arrests. Clearly, the liberation hypothesis position that increased female criminality is a function of increased opportunities for women is inconsistent with the demographic information collected on the current sample.

As expected, results of the DAPP-IV indicated high levels of problematic personality characteristics in the sample. Scores on the DAPP-IV were substantially

¹Recent previous research at BCCW by other researchers, which had included an examination of sexual abuse histories, had reportedly resulted in high levels of distress for some participants. Thus, despite the obvious importance of such information for, among other things, an understanding of attachment outcomes in adulthood, a decision was made not to explore abuse histories in the current study.

elevated over what would have been expected from those obtained from a sample drawn from the general population. The women in the current sample tended to be individuals with high levels of emotional lability and reactivity, limited ability to regulate their affective experience, high levels of stimulus seeking and acting out against themselves and others, a distrustful and suspicious world view, somewhat limited communication patterns, and, often, rather rigid standards. Based on the PCL:SV,² 30% of the women met the criteria for psychopathy, although scores tended to be higher on the behavioural features than on the affective and interpersonal features of this disorder.³ These behavioural features were positively correlated with Lability, Interpersonal Unresponsiveness, and Impulsive Stimulus Seeking scores on the DAPP-IV, and the affective and interpersonal features were associated with Antagonism score on the DAPP-IV.

The RQ and the RSQ also yielded significantly different results than those previously obtained from a non-forensic sample by Scharfe and Bartholomew (1994). Results of the attachment measures reflected very low levels of secure attachment and very high levels of insecure attachment, especially abnormally high rates of and scores on the Dismissing and Fearful types. The Secure prototype was associated with low scores on the DAPP-IV Lability, Interpersonal Unresponsiveness, and Impulsive Stimulus

² It should be recalled that the PCL:SV results were based on the DAPP-IV interview, and thus must be viewed with caution.

³ This figure (i.e., 30%) is consistent with the PCL:SV norms for male forensic samples. Female norms for rates of psychopathy (i.e., scores over 18) are unavailable for the PCL:SV. Tien et al. (1993) reported that 23% of their female forensic sample scored in the high range on the PCL-R, but provided only total and not factor scores.

Seeking factor scores, and the Dismissing prototype was associated with low scores on the DAPP-IV Lability and Antagonism factor scores. The Secure prototype and the self-model were also both negatively related to scores on Part 2 (the behavioural component) of the PCL:SV. Taken as a whole, these results are consistent with a sample which included large numbers of individuals who tended to be emotionally labile and impulsive, who tended to demonstrate antisocial behaviour patterns, who were very distrustful of others and insecure in their bonds with them, and who were not adept at getting their needs met or in communicating what those needs were. Those individuals in the sample who demonstrated less disturbed personality features also tended to receive a higher score on the Secure attachment prototype.

Lifestyle variables bore some limited relationships to the personality and attachment measures collected. Those who had begun their criminal careers early (as indicated by age of first arrest) scored more highly on Part 1, Part 2, and Total Score of the PCL:SV, and on the DAPP-IV Antagonism and Impulsive Stimulus Seeking factor scores. Number of previous convictions correlated positively with PCL:SV Total Score. Drug use was positively correlated with the DAPP-IV Lability, Antagonism, and Impulsive Stimulus Seeking factor scores, and with PCL:SV Part 2 and Total Score. Increasing levels of childhood instability were related to higher scores on the DAPP-IV Impulsive Stimulus Seeking (and to a lesser extent Lability and Interpersonal Unresponsiveness) factors, but were not meaningfully related to the attachment results.

The following discussion of the general implications of these findings repeats the

organizational pattern found in the Results chapter. Thus, personality issues are considered first, followed by discussions of psychopathy, the relationship between personality and psychopathy, attachment, the relationship between attachment and personality, the relationship between attachment and psychopathy, and lifestyle variables. The issues of personality, psychopathy, and attachment are then revisited in the section on specific implications of the results for those who work with female offenders.

General Implications

Personality Issues

The utility of employing a dimensional approach to considering disorders of personality was supported by the present results. A great deal of information was captured on specific problems of interpersonal functioning, much of which would have been missed if categorical decisions about the presence or absence of personality disorders had been the basis for data collection. Many individuals had behaviours, and often even traits, which might be considered problematic but were not sufficient to warrant a clinical score. In addition, the dimensional approach used considered a broad range of traits and behaviours which allowed an evaluation of potential strengths the individual might possess as well as identifying problem areas, permitting a more balanced assessment of each person's personality. Equally importantly, pejorative and/or reductionistic labels were avoided. Of note, participants uniformly indicated that the feedback they received based on the DAPP-IV and other testing materials was consistent

with their perceptions of their internal and interpersonal experiences, thus providing informal information about the validity of the instruments used in this study.

The widespread high rates of comorbidity of personality disorder diagnoses reported in the literature render the high comorbidity of pathological personality traits found in the current sample unsurprising, but this result bears further consideration. The DAPP-IV higher order factors demonstrated good internal consistency at both the item level and at the component factor level, and thus are psychometrically sound on this dimension. However, some of the correlations between factors are somewhat elevated over what would be expected even given common method (interview) and convergent content (pathological personality traits). In fact, the DAPP-IV higher order factors were, with one exception, rather highly related to one another. Compulsivity was the only higher order factor which demonstrated no relationship with the other factors.

Lability and Impulsive Stimulus Seeking in particular demonstrated both the lowest specificity and a high level of relatedness with one another, with fully half (i.e., Affective Lability, Anxiety, Identity Problems, and Passive Oppositionality) of the Lability component factors correlated at the $p < .001$ level with Impulsive Stimulus Seeking and half (i.e., Conduct Problems and Self Harm) of the Impulsive Stimulus Seeking component factors correlated similarly with Lability. (A large number of significant correlations also exist between the two sets of component factors - see Appendix E.) In considering the possible link between these two factors, the issue of impulsivity seems a strong candidate. Livesley (1994), for example, noted that two out

of three of the cognitive schemata associated with Impulsive Stimulus Seeking implicate impulsivity. These are the schemata for impulsive decision-making, reflecting the position that it is a waste of time to think about actions, and low impulse control, reflecting low ability to delay gratification. (The third schema is invulnerability, reflecting a sense that nothing bad will happen to the self.) Impulsivity is perhaps less obvious a factor in Liability, but could potentially be involved in a variety of affective and cognitive features associated with this factor. Thus, impulsivity might manifest in a broad range of personality traits and behaviours captured by Impulsive Stimulus Seeking and Liability, including acting out against self (Self Harm), acting out against others (Conduct Problems), or acting more generally without regard for consequences (Stimulus Seeking). It may lead to idiosyncratic interpretations of events due to poorly integrated perceptions or premature conclusion-drawing (Cognitive Distortions, Suspiciousness). There may be a distorted pattern of stimulus appraisal (including those in interpersonal situations and elsewhere), with the most recent stimulus having exclusionary salience and providing the only basis for responding, with concomitant affective (Affective Liability, Anxiety, Insecure Attachment), cognitive (Identity Problems, Insecure Attachment, Suspiciousness, Cognitive Distortion), and behavioural (Conduct Problems, Passive Oppositionality, Self Harm, Stimulus Seeking) manifestations. In other words, perhaps impaired affect regulation is, in a sense, a form of impulsive affectivity, and individuals who score high on impulsivity tend to do so across cognitive, behavioural, and affective domains. At any rate, a broader

consideration of impulsivity may be one fruitful avenue for increasing our understanding of problematic personality characteristics.

The relatedness between Lability and Interpersonal Unresponsiveness is conceptually interesting, because the Interpersonal Unresponsiveness component factor which correlates most highly with Lability is Restricted Expression (see Appendix E). Thus, although a typical prototype image of high Lability likely includes some manifestation of strong affective displays, the current results indicate that such an inference is not necessarily accurate. At least two possible explanations exist for the co-existence of Lability and Restricted Expression. One is that the individual is so consumed by her own experiences that she is relatively unreactive to interpersonal cues (i.e., a self-absorbed, internal focus leads to limited affective displays towards others). The second is that the individual is experiencing strong emotions but actively suppressing their display in interpersonal contexts. A number of points suggest that the second possibility seems most likely to be the accurate interpretation. First, the Lability component factors which correlated most highly with Interpersonal Unresponsiveness were Social Avoidance, Identity Problems, and Anxiety. These correlations suggest a picture of anxiety and uncertainty about oneself in interpersonal contexts leading to inhibited affective displays. Second, a specific consideration of the DAPP-IV inter-correlations (again, see Appendix E) at the component factor level indicates that Restricted Expression is highly correlated with the following Lability component factors: Identity Problems; Social Avoidance; Anxiety; Passive Oppositionality; and

Suspiciousness. These relationships reinforce the interpretation that fear, uncertainty, and perhaps poor social skills are contributing to low levels of affective display with others. Indeed, many of the women expressed a strong reluctance to let others know what they were feeling, be it a negative emotion (e.g., anger) or a positive one (e.g., love), fearing negative consequences to themselves if they were to do so.

The moderately strong positive correlation between Lability and Antagonism is largely a result of the strong positive correlations between Lability and Interpersonal Disesteem on the one hand and between Antagonism and Affective Lability, and Passive Oppositionality, on the other. The relationship between Antagonism and Passive Oppositionality is clear, as both reflect a hostile orientation towards others and differ only in the degree to which there is active versus passive expression of this sentiment. The relationships between Antagonism and Affective Lability, and between Lability and Interpersonal Disesteem, are less straightforward. It seems likely that some third factor accounts for the presence of both (within each pair of relationships) when they are manifested in the same individual. For example, it may be that negative early social experiences lead to both high Antagonism and high Affective Lability, (and) or to both high Lability and high Interpersonal Disesteem.

The strong positive correlation between Impulsive Stimulus Seeking and Antagonism is not particularly surprising, given that both sets of component factors suggest various manifestations of a negative evaluation of others, ranging from disregard (e.g., Narcissism, and perhaps Cognitive Distortion and Stimulus Seeking) to more overt

hostility (e.g., Interpersonal Disesteem, Rejection, Conduct Problems). This interpretation is supported by the finding that the highest correlations involving at least one component factor are between Interpersonal Disesteem and Impulsive Stimulus Seeking, and between Interpersonal Disesteem and Conduct Problems.

The moderately high positive relationship between Impulsive Stimulus Seeking and Interpersonal Unresponsiveness is similarly logically sound, because it seems reasonable to expect that someone who scores highly on one or more of Cognitive Distortion, Conduct Problems, Self Harm, and Stimulus Seeking would also tend to score highly on Intimacy Problems and/or Restricted Expression. The connection hypothesized above between Interpersonal Unresponsiveness and Lability was that high emotional reactivity is being suppressed due to fear over how others will respond. It seems reasonable to suspect that affect may be communicated at a low level in the presence of high Impulsive Stimulus Seeking for somewhat different reasons, such as a relative disregard for others or a lack of awareness of one's own emotional experience.

The high specificity of Compulsivity also deserves comment. As the only higher order factor with a single component factor, there may be psychometric reasons for the low correlations between it and the other higher order factors, although the consistent weak correlations between it and all 17 of the remaining component factors as well suggest that psychometrics are not the sole explanation. The distribution of Compulsivity scores offers no simple answer. The scaled mean was relatively elevated, third highest of all the higher order factors, and the distribution had sufficient variance

(indeed, Compulsivity had the highest scaled standard deviation of all the higher order factors) to permit correlational relationships to emerge if they in fact existed. Thus, the content of the Compulsivity factor must be considered. High scores on this factor reflect rigidity and perfectionism in approaching tasks, suggesting a lack of impulsivity in at least some behavioural domains. It may be that the personality feature of compulsivity manifests under a variety of conditions which are not systematically related to the other features captured by the DAPP. For example, a strong need for order in one's environment or emphasis on following rules might be a defensive reaction to an experience of internal loss of control, or it might reflect internalized standards which have been acquired through repeated experiences with rigid and demanding caretakers. Different etiologies or features, not differentiated by the DAPP-IV, may create sub-types of compulsivity which are related in differing ways to the other factors. Conversely, it may be that compulsivity is essentially a uniform characteristic that is truly orthogonal to all other DAPP factors. A future closer consideration of compulsivity as it is measured by the DAPP-IV is required to clarify this issue.

It is also interesting that compulsivity seems the least obviously connected to criminality of all of the higher order factors and indeed, at sub-clinical manifestations may be linked to socially acceptable opportunities for success (e.g., precision and orderliness leading to high-quality work in one's chosen field, continued advancement, and financial and career success). That it was elevated in this sample suggests that it does not, however, serve as a protective factor against low social functioning or

criminality. Interviews with the women in this sample suggested that the compulsivity traits of orderliness and precision were more in evidence than the trait of conscientiousness, and that the domains in which behavioural facets of compulsivity manifested tended to be domestic or personal rather than work-related. Thus, for example, concern with keeping one's living space clean and orderly (be it prison cell or home) was a more common feature in this sample than were concerns with planning ahead or doing one's best. In addition, the existence of some compulsivity traits in an individual did not preclude the existence in the same person of impoverished interpersonal resources, poor affect regulation, poor organizational skills, limited education and job skills, drug abuse, and poor lifestyle. This analysis is impressionistic only; a more detailed examination of compulsivity may be warranted in future studies in order to gain a greater understanding of this trait in creating internal distress (e.g., anxiety when environmental order is disrupted), in contributing to interpersonal conflict (e.g., need for orderliness leading to conflict with children or partner who fail to meet standards for tidiness), and in serving as a potential enhancer of academic and employment success.

Issues Related to Psychopathy

Two notable PCL:SV results were the lower Total Scores and the lower Part 1 scores of the present sample as compared to forensic norms. There were no significant differences on Part 2 scores between the current sample and the two sets of forensic

norms, so the difference in Total Scores may essentially be attributed to the difference on Part 1 scores. One obvious possible reason for the lower scores in the current sample is that, as noted in the preceding chapter, the PCL:SV was scored using the DAPP-IV rather than the PCL interview. This is a significant discrepancy, and certainly limits the importance one may attach to the present results. The DAPP-IV may simply be insensitive to the interpersonal and affective traits demonstrated by someone who is high in psychopathy, and there is no evidence resulting from the present study which is sufficient definitively to refute this interpretation. Similarly, there is no basis for absolutely rejecting the alternative explanation that the DAPP-IV is a *more* sensitive instrument for considering affective and interpersonal functioning, and resulted in lower PCL:SV Part 1 scores here because it was more accurate in identifying the absence of psychopathic traits. A third possibility is that the DAPP-IV and the PCL interview are equally accurate at identifying psychopathic traits, and the differences in scores reflect the fact that the current sample truly demonstrated less affective and interpersonal symptoms of psychopathy. The first possibility, that the DAPP-IV is a less accurate indicator of psychopathy than the PCL interview, needs no explanation, because the various PCL instruments are generally the standard by which psychopathy is considered and this would actually be the expected case. The second possibility, that the DAPP-IV provides for a more accurate evaluation of psychopathy, would, if true, raise obvious concerns about the validity of either current conceptualizations of psychopathy, the validity of the PCL interview, or both. Given that the validity of these two contrasting

interpretations must remain in question here, potential explanations for the third possibility, that the current sample is truly different from the normative samples on PCL:SV Part 1 scores, are of interest because this is the alternative with the most non-psychometric (i.e., theoretical) ramifications. First, however, the finding that Part 1 scores were lower in the current sample than in the normative samples, but that Part 2 scores were not, deserves brief comment.

Part 1 scores are consistently lower than Part 2 scores across a wide range of samples considered (e.g., Hart et al., 1995, Hart, Forth, & Hare, 1991; Hart, Hare, & Harpur, 1992; Serin, 1992),⁴ which may reflect general difficulties in assessing affective and interpersonal as compared to behavioural indices of psychopathy. If this difference is purely a reflection of general measurement difficulties, results of the current study are consistent with either of the first two possibilities, that the DAPP-IV is either a better or a worse instrument than the PCL interview for assessing psychopathy (i.e., either the PCL interview represents the best attempt to capture these elusive traits and the DAPP-IV cannot serve as an adequate replacement, or consistent differences between Part 1 and Part 2 scores are found precisely because there is room for improvement in the PCL interview). Again, however, the accuracy of these competing interpretations cannot be determined on the basis of the current study. The universal difference between Part 1

⁴A number of these studies utilized the PCL-R rather than the PCL:SV. Factor 1 and Factor 2 on the PCL-R are equivalent to Part 1 and Part 2 on the PCL:SV, but contain 10 rather than six items each. Scores on the PCL-R are thus absolutely larger than those on the PCL:SV, but the relative difference between the two parts (factors) remains.

and Part 2 scores may also be explained by the alternative possibility that there is differential penetrance of psychopathic traits. Differential penetrance would suggest that a relatively broad range of individuals will demonstrate impulsivity, irresponsibility, poor behavioural controls, and other behavioural features of psychopathy, but that it is only highly psychopathic individuals who will also manifest the superficiality, grandiosity, manipulateness, low empathy, and other affective and interpersonal features associated with this condition. Preliminary evidence suggests that the discrepancy between scores on Part 1 and Part 2 reflects differential penetrance rather than measurement difficulties (S. D. Hart, personal communication, May, 1996). Thus, for example, many people behave impulsively, but true remorselessness for one's actions occurs more rarely. If the consistent difference between Parts 1 and 2 is a result of differential penetrance, then the third possibility introduced above, that the current sample is truly different from the norms on psychopathy, becomes increasingly interesting theoretically.

What potential reasons exist for the low scores on Part 1 in the current sample as compared to the PCL:SV forensic norms, if they were not caused by inadequacies of the DAPP-IV? An obvious consideration is the role of sex. It may be that females differ from males on measures of psychopathy and that inadequate data have been collected to date to identify a true sex difference. Most research on the various PCLs has been conducted on male participants, and the bulk of the forensic sample upon which the PCL:SV norms were created is male. The existence of a difference between the current sample and the female forensic norms as well argues against this, but it should be noted

that the female norms are based on a sample which is quite small. In fact, the current sample is actually 56% larger than the sample on which the comparative female norms were based.⁵ Recognizing that there are solid arguments neither for concluding that the current PCL:SV results are invalid nor that they represent the true state of affairs for females, what are the implications of the second alternative, that females actually do score lower on Part 1 than their male counterparts? One possibility is that lower female Part 1 scores are reflective of systematic differences in interpersonal styles and self-experiences between males and females. Recalling the literature reviewed above on the importance of connectedness in female development, it may be that the hypothesized nature of the female, as compared to male, developmental pathway, focusing as it does on empathic attunement and a strong sense of connectedness to others, is antithetical to the development of the affective and interpersonal traits associated with psychopathy. Thus, the current finding of low Part 1 scores on the PCL:SV may be considered as indirect support for the self-in-relation model of female development. These relatively lower Part 1 scores may also suggest one contributing factor in the much lower rates of violent offenses committed by women as compared to men, as it seems reasonable to expect that violent behaviours are perpetrated at higher rates by those who are not particularly distressed by the suffering they cause to others. Recent work by Serin

⁵ In addition to the small sample size, it should be noted that the female norms are derived from a single study. Thus, comparisons between the normative and the current samples should more properly be considered as comparisons between two studies rather than as an evaluation of the current sample against a "norm."

(1996), who found that PCL-R Factor 1 scores were a better predictor of violent recidivism than Factor 2 scores in a male forensic sample, is consistent with this interpretation.

The discrepancy between the current sample and the female norms certainly suggests that more data are needed on the prevalence rates and scoring patterns of psychopathy in females, and highlights the fact that existing female norms are based on an insufficient sample size to be certain of their validity. The discrepancy between (mostly) male forensic norms and the current female sample, although certainly a tentative result, suggests the possibility of an interesting difference between female and male offenders which has important implications both for treatment and for risk management, and which merits further empirical attention.

Relationship Between the DAPP-IV and the PCL:SV. It should once again be noted that there was a lack of independence between the DAPP-IV and the PCL:SV scores in this study (due to the DAPP-IV interview forming part of the basis on which PCL:SV scores were assigned), and thus limited significance may be attributed to the results of a comparison between the two measures. With this proviso in mind, correlations between the two sets of scores provided evidence of convergent validity between the DAPP-IV and the PCL:SV. High scores on Part 1 of the PCL:SV were associated with high Antagonism scores from the DAPP-IV, reflecting the similar content domains between these two sets of scores. Part 2 scores of the PCL:SV were in

turn positively correlated with scores on Lability, Impulsive Stimulus Seeking, and Interpersonal Unresponsiveness from the DAPP-IV. Lability and especially Impulsive Stimulus Seeking contain content compatible with that found in the PCL:SV Part 2, with all of these scales evaluating aspects of the manifestations of impulsive, reckless, labile, poorly controlled, and poorly integrated affective, cognitive, and behavioural systems.

Attachment Issues

The categorical RQ results indicated that most women identified themselves on this measure as having a Fearful attachment style, but the dimensional RQ and RSQ results both yielded elevated scores for the Dismissing as well as the Fearful attachment style. This result provides support for the utility of dimensional over categorical measures generally, and in the case of attachment specifically, highlighting the potential loss of information if only a categorical approach is employed.

There was moderate agreement between the RQ and the RSQ, with correlations between like prototypes and models ranging from $r = .24$ to $.52$. Agreement was probably attenuated somewhat by the apparent difficulty some participants in the current sample demonstrated in managing the cognitive processing required to complete the RQ in a meaningful way. In a small number of cases, individuals were completing the second part of the RQ in a manner which was inconsistent with their response in the first part. In other words, they were assigning higher Likert scores to an attachment classification descriptor (or descriptors) than they were assigning to the classification they had

identified as most like themselves in the forced choice component of the test. When queried, these participants indicated that they saw no inconsistency in, for example, selecting the Dismissing style as most like themselves and then also giving the Fearful description a higher Likert score than the Dismissing description. It appeared that some subjects were unable to hold all of the components of each descriptor in their minds simultaneously and to evaluate each short paragraph in its entirety, but were instead weighing the applicability to themselves of individual sentences within the descriptor paragraphs. This parsing made assigning a score to each paragraph a difficult task, and the problem was then compounded by the necessity of comparing paragraphs in order to identify which was most like oneself (and in order to provide responses which were logically consistent across the two parts of the test). This finding suggests that the RQ results should be viewed with some caution, and that the RSQ results are probably the more valid and reliable of the two. It may be that the RQ is a test which will have more limited utility than the RSQ in attachment research, and that it will be appropriate for use only with more highly educated and/or more cognitively sophisticated research samples.

Keeping in mind the limitation just noted with the RQ,⁶ some interesting relationships emerged when the various versions of this instrument were compared. As noted in the previous chapter, the correlations between the standard version and each of

⁶It is possible that this limitation was also applicable to the RSQ, and that it was simply more difficult to identify problems participants were encountering in completing this test in a logical and consistent fashion. This would account for the low internal consistencies and inter-item correlations of the RSQ. At any rate, results of the RQ and RSQ yielded similar overall results (i.e., similar patterns of secure versus insecure attachment) despite only moderate correlations between the two measures.

the experimental versions indicated that the standard version was most similar to the version which inquired about one's romantic partner, and thus participants' experiences with their romantic partners appeared to be playing the largest role in determining their attachment scores. In considering Appendix G, in which the full correlation matrix for all versions is presented, further points become evident. All of the experimental Secure scores and all of the experimental Preoccupied scores were significantly positively correlated with the standard version, indicating that participants were using similar schemata to evaluate these two descriptor paragraphs no matter which relationship they were considering. The various experimental Secure scores were also all significantly positively correlated with one another, with the exception of the romantic partner and best friend versions, and the various experimental Preoccupied scores were also all at least moderately correlated with one another, further supporting the notion that the Secure and Preoccupied prototype descriptors tended to evoke a relatively more generalized and less relationship-specific comparative mental schema. Note that the common factor between these two categories is a positive model of others. The Fearful and Dismissing scores, on which the common feature is a negative model of others, demonstrated a different pattern. For these two classifications, the romantic partner version was the one most in agreement with the standard version, indicating that it was primarily romantic relationships which were serving as the comparative model when a relationship was not specified. In addition, the closest BCCW relationship version was in closer agreement with the romantic partner version for the Secure and Dismissing

prototype scores than for the Fearful and Preoccupied prototype scores, suggesting that experiences with romantic partners were more influential in determining Secure and Dismissing (positive self-models) than Fearful and Preoccupied (positive other-models) scores when the relationship was (likely) relatively new and formed under stressful circumstances. Experiences with friends also influenced perceptions of BCCW relationships, however: correlations between the closest BCCW relationship version and the best friend version were all positive and ranged from $r = .18$ to $.37$. Finally, the correlations between the romantic partner version and the best friend version yielded stronger agreement between the Fearful and Preoccupied (negative self-models) scores than the Secure and Dismissing (positive self-models) scores. This seems best explained by the impression created during interviews with some of the women that when they described a dismissive type of attachment to their romantic partners, they also described a more secure relationship with a female friend. Thus, a low Secure score and a high Dismissing score on the romantic relationship version was not predictive of similar scores on the best friend version. It seems likely that romantic relationships were probably more similar to early attachment relationships than were best friendships, and that a secure relationship with a close platonic other, despite its importance, was not sufficient to alter one's primary (insecure) attachment style.

To summarize correlational results from the experimental RQ versions, the findings were suggestive of a tendency for positive other models to generalize across relationships, for negative other models to be most related to those based on romantic

relationships, for relatively newer relationships (BCCW connections) to be most like romantic relationships with respect to positive self-models, and for romantic relationships and best friendships to be alike with respect to negative self-models but not so for positive self-models.

Raw scores indicated that the highest Secure score was obtained on the best friend version of the RQ, the highest Fearful score was obtained on the standard version (although this was not significantly different from the romantic relationship version), the highest Preoccupied scores were obtained on the standard and romantic relationship versions, and the highest Dismissing score was obtained on the BCCW relationship version (although this was not significantly different from the standard and romantic relationship versions). These results indicate that women in the sample tended to feel the most secure in their non-sexual close friendships, that they tended to produce the highest Fearful prototype scores when asked generally about relationships and their answers regarding this classification seemed to be most influenced by negative relationships with romantic partners, that they tended to produce the highest Preoccupied scores also when asked about relationships generally but again this result was likely reflecting negative experiences with romantic partners, and that they tended to feel most dismissing in their relationships with others at BCCW but were also dismissing of romantic (and unspecified, likely assumed romantic) relationships. This last finding of high mean Dismissing scores on the closest BCCW relationship version is perhaps reflecting the relatively short existence of most of these relationships at least as much as it is indicative

of the high levels of distrust between individuals in the institution. Interestingly, the best friend version yielded the lowest mean Dismissing score, again highlighting the importance to these women of non-sexual close friendships and, along with the high Secure scores on the best friend version, providing further indirect support for the self-in-relation model of female development.

As a final comment on the attachment results, it should be noted that the overall results were clear in identifying high rates of insecure attachment in the sample, but that a closer look at the data also revealed inconsistencies. Considered together, the high scores on both Fearful and Dismissing prototypes (on both the RQ and the RSQ), the low inter-item correlations and internal consistencies of the RSQ, the moderate rather than high agreement between the prototype scores generated by the RQ and the RSQ, and the tendency for women to endorse a range of items from all of the insecure prototypes, may all reflect a low level of organization in the participant's hierarchical models of attachment. Recall that a number of authors (e.g., Collins & Reed, 1994) have proposed that working models of attachment become internalized in hierarchical form, from generalized models of relationships at the top to models of specific relationships at the bottom. The models are thought to differ in the degree to which they are logically integrated based on the coherence of (especially early) attachment experiences. Current results would be consistent with this hypothesis that attachment models are hierarchical in nature and with the interpretation that the women in this sample tended to have working models with poorly integrated hierarchical levels. Alternatively, it may be that

the current results reflect a difficulty with the attachment model used here. As noted in the first chapter, not all authors agree that models of self and of other are independent from one another (e.g., Bretherton, 1990). It may be that the two are fundamentally linked and a positive (negative) model of self can only develop concurrently with a positive (negative) model of others through positive (negative) early experiences with one's caregiver. It seems unlikely that the picture is actually as simple as consistent model congruence, but the issue of independence (or lack thereof) between models of self and other requires further empirical attention.

Relationship Between the DAPP-IV and the Attachment Measures. As noted in the preceding chapter, agreement between the Insecure Attachment scale from the DAPP-IV and the two attachment measures was low, with a moderately strong negative correlation between Insecure Attachment and the Dismissing attachment style proving the only significant relationship. This finding, combined with the relatively low redundancy scores between these two measures (ranging from 10% to 23% of variance accounted for) clearly indicates that the DAPP-IV and the attachment measures were evaluating security of attachment differently, and that the RQ and RSQ had a unique contribution to make to an understanding of the interpersonal functioning of the women in this sample. Thus, support is provided for the more general position that attachment measures provide additive information to that obtained from personality measures, consistent with results previously reported by Griffin and Bartholomew (1994) and

Shaver and Brennan (1992).

Relationship Between the PCL:SV and the Attachment Measures. The rather poor logical agreement between the PCL:SV and the attachment measures is difficult to explain. The moderately strong negative correlations between PCL:SV Part 2 scores and the Secure prototypes and self-models from both attachment measures is theoretically coherent, as one might expect that individuals who have developed positive models of self and of relationships with others would be less likely to demonstrate the behavioural manifestations of psychopathy. However, the moderately strong positive correlation between PCL:SV Part 1 scores and RQ Secure scores is unexpected. It may be that this finding is one of the artifacts of the problems identified above with the RQ, as there is no theoretical basis for predicting this relationship. Similarly, although the moderately strong negative correlation between PCL:SV Total Score and RSQ Secure is consistent with expectations, the moderately strong negative correlation between PCL:SV Total Score and RSQ Dismissing is not. One possible explanation for this result is that the women in this sample were reporting high agreement with dismissive statements about relationships not because they were truly indifferent to relationships, but because an accumulation of negative experiences was leading them defensively to deny the need for connections with others, or at least to profess very low expectations about the reliability and value of others and to deny their own willingness to make themselves available in relationships. In other words, the women were adopting a

defensive, "I'm fine without relationships" stance rather than acknowledging the more genuine position that "I don't feel okay about myself and I don't trust others" (the Fearful position). The high dimensional scores on both the Fearful and the Dismissing prototypes on the RSQ (and on the RQ) lends some support to this interpretation, as does, more tangentially (because it involves a different measure), the finding that the RQ experimental versions indicated that Dismissing scores on the standard version were most similar to those on the romantic relationship version and were uncorrelated with the Dismissing scores on the other two versions. In other words, the RQ results suggest that the Dismissing attachment orientation to others was not generalized across all relationships, and there is no reason to suspect that the same was not true for the Dismissing prototype as captured by the RSQ dimensional scores. The low mean inter-item correlation and low internal consistency of the RSQ Dismissing prototype score is also consistent with the interpretation that the high Dismissing scores obtained from this sample were frequently reflective of a defensive rather than an actual generalized Dismissing attachment style. One would expect that, if the Dismissing style was systematically related to psychopathy, genuine dismissiveness would be a generalized feature of essentially all interpersonal relationships.

Lifestyle Variables

Although the relationships were in some cases weaker than might have been anticipated, most of the relationships between criminal history, drug use, and family of

origin on the one hand and personality on the other were as expected, with more severe criminal history and more severe drug abuse related to higher scores on the DAPP-IV factors and on the PCL:SV, and with more disruption in family of origin related to higher scores on the DAPP-IV factors only. No significant relationships involving alcohol emerged, perhaps reflecting a ceiling effect for this rather omnipresent psychoactive substance. Most surprising, the attachment measures were virtually unrelated to any of the lifestyle variables considered, including criminal history, drug and alcohol abuse, and disruption in family of origin. It is unclear whether this null result is a reflection of the limited nature of the lifestyle data collected or of a ceiling effect resulting from the very high rates of insecure attachment in the sample. Future research which focuses in more detail on lifestyle variables and their relationship to attachment style may help clarify the meaning of the current results.

Specific Implications of the Current Findings for Work With Female Offenders

The Personality Results

Given the idea that knowledge about personality is of predictive utility in anticipating how people are likely to respond to various situations, what do the results of this study have of value to add to our understanding of women who find themselves in our prison system? First, the finding of high levels of personality pathology in the sample deserves comment. Prisons are generally stressful settings for the individuals incarcerated in them for a variety of reasons. Many of the rights and freedoms people

take for granted are withdrawn. Decisions as fundamental as what and when to eat, when to go to bed and when to rise, who to associate with, what labours to involve oneself with, how to utilize recreational time, and when to seek medical assistance are no longer at the discretion of persons who find themselves in prison. Contact with loved ones is severely restricted, sometimes terminated. This can be particularly stressful for women who are the sole caretakers for their children. Virtually all decisions, from minor to major ones, seem to be controlled by others. This perceived loss of control may be compounded by inconsistencies between staff members, unrealistic expectations on the part of the incarcerated individual about what prison life entails, and a lack of flexibility in goal pursuit. The loss of control associated with incarceration is likely to intensify emotional reactivity, both because there is more to react to and because the pervasive inherent stress has resulted in a lowering of the stimulus intensity required to elicit a distress reaction. This situation will be compounded for someone who's normal presentation includes high emotional lability, a trait which was elevated in this sample. The fact that the prison contains many individuals with this personality characteristic will have an impact on the emotional tone of the entire institution, heightening the baseline stress level for everyone.

Widespread high levels of distrust and suspiciousness will compound the problems described above. Rules, decisions by authorities, and instructions from staff are more likely to be perceived as capricious or malicious in intent, and interpersonal encounters with other inmates and with staff are more likely to be interpreted negatively,

intensifying perceived loss of control and fueling resentment, anger, and further exacerbating emotional lability. Emotional outbursts by others are likely to be personalized, further compounding stress levels and resulting in a positive feedback loop which leads to spiraling negative emotions and escalating aversive interpersonal encounters. This pattern is consistent with the finding by Griffin (1984) noted above that female inmates tend to discount the role of chance in attributions they make about interpersonal contexts, being far more likely to believe that circumstances are caused by the intentional actions of powerful others. One is also reminded here of Wachtel's (1994) description of vicious circles, because it seems highly probable that suspiciousness will lead to interpersonal behaviours which confirm such a world view.

The importance of an interaction between personality features, insecure attachment, and stress seems relevant here as well. Recalling that the suggestion has been made that insecure attachment predisposes to mental health problems by increasing vulnerability to stress, reducing social support networks, and elevating appraisals of stress (West et al., 1986), and that chronic stress has been theoretically implicated in a chronic activation of the attachment system which ultimately leads to a rise in baseline insecurity (J. A. Simpson & Rholes, 1994), the makings of a pathological vicious circle can be clearly seen. Personality pathology consistent with troubled interpersonal functioning and insecure attachment were both elevated in the current sample, and it seems likely given the generally troubled life circumstances described by many participants that stress levels, although not formally evaluated, were also chronically

rather high.

Elevated scores on Restricted Expression, Passive Oppositionality, and Submissiveness indicate that many of the women in this study also had problems openly communicating what they were experiencing. Thus, at the same time they were prone to high levels of distress and emotional reactivity, they were not able to communicate with others in a way which was likely to be effective in alleviating their distress. Elevated scores on Stimulus Seeking and Self Harm, and high rates of substance abuse, indicate that these women had developed a pattern of utilizing more destructive coping strategies. Without training in alternative coping strategies, it seems unlikely that old behavioural responses to stress will be abandoned. Thus, there will be a tendency for stress to lead to ineffective or even counter-productive coping, which will in turn lead to even greater stress levels (both within and outside the institution).

The Psychopathy Measure

The finding of higher scores on Part 2 than on Part 1 of the PCL:SV is noteworthy. Although, as noted, average scores on Part 2 do tend to be somewhat higher than those on Part 1 among all samples, there was a marked discrepancy between the two scores in this sample. It is not surprising that scores on the behavioural indices of psychopathy were elevated relative to general population but not forensic samples, given that the current sample was comprised of women who were incarcerated for alleged or confirmed antisocial activities. Scores on the affective and interpersonal

indices captured by Part 1 were far lower, providing, again as noted above, possible tangential support for the self-in-relation model of female development which would predict that women's empathic skills and other-orientation would preclude, or at least buffer against, a psychopathic interpersonal style. In addition, however, a low score on Part 1 is likely a positive prognostic indicator for amenability to psychotherapeutic intervention, because the psychopathic self-concept and affective and interpersonal characteristics which would serve as barriers to building a therapeutic alliance are absent, empathy is present to at least some degree, and motivation to effect change may also be higher (as distress over functioning - e.g., remorse, guilt - is present). As noted in the section on general implications, Part 1 scores are also particularly important with respect to the evaluation of future risk for recidivism, especially violent recidivism, and thus could potentially be valuable for release planning and post-release case management considerations. Limited resources could be focused on the small number of women who do receive high scores on Part 1 and are thereby deemed most at risk for future acting out.

The Attachment Results

The high rates of insecure attachment found in this study on the RQ and the RSQ are consistent with the high rates of suspiciousness and distrust indicated by the DAPP-IV. The women in this sample formed romantic attachments to other people, but generally expressed high levels of distrust for the (mostly) men with whom they were

involved. Insecure attachment manifested in a variety of ways among the women interviewed. Many appeared to have low expectations of the degree to which their partners would be there for them when needed, and seemed to invest emotionally in them only to a certain degree, holding back in a self-protective fashion. Fluctuating intensity of feeling for one's partner and a fluctuating sense of commitment to the relationship were also apparent. Also common was a pattern of speaking in unrealistically positive terms about a partner at one time and being angrily dismissive the next, as though the entire quality of the attachment depended upon the most recent interaction with the partner, or upon the currently activated memory of him or her. This style of attachment behaviour would be consistent with the possible impact of impulsivity on cognitions and affect as described in the above section on the general implications of the personality results. It would also be consistent with the interpretation suggested above that many of the women in this sample had poorly integrated attachment hierarchies, and that even at the level of specific relationships, their models were low in organization and internal coherence. These patterns are also probably linked to real difficulties the women were experiencing in their relationships, as it was apparent from comments many made that they were with partners who were involved in crime, who had drug and/or alcohol problems, or who were in some other way unreliable sources of support. Given that they were choosing to remain in these relationships, a fluctuating level of commitment and good feeling towards their partners was perhaps a realistic response to a non-optimal situation. Finally, a smaller number of women demonstrated highly dependent

attachments, idealizing their partners and, in extreme cases, appearing to experience a catastrophic loss of sense of self without the physical presence of their partners, but this was a much more rare manifestation of insecure attachment in this sample.

The forced-choice categorical results of the RQ indicated that the most common attachment classification in the sample was Fearful, but the dimensional RQ and RSQ results indicated that a large number of the women were actually probably best characterized as manifesting many of the qualities of both a Fearful and a Dismissing attachment style. One possible explanation is that most were predominantly characterized by a Fearful attachment style (as indicated by the results of the RQ), were continuing to enter into relationships despite their low expectations, and were defensively adopting a Dismissive presentation style as a way of protecting themselves from negative outcomes. It may be that the self-in-relation model of female development is relevant here in explaining why these women were engaging in rather than avoiding relationships despite their distrust. Strong affiliative needs were not displaced by fear, but continued to predispose these women to build connections with others and to experience a sense of self in the context of their relationships.

A number of points follow from the foregoing discussion of the attachment results. First, consistent with what those who work in prisons for women will attest to, trust is a fundamental issue when working with female offenders and is likely to impact on inmate-inmate, inmate-staff, and inmate-therapist relationships. Trust in correctional staff and in therapists is likely to be won, if at all, only after a long pattern of patient,

consistent, non-judgmental, and honest interactions has been established. Second, the relational capacity demonstrated by these women even in light of high levels of distrust and suspiciousness is a positive indicator that reasonable working relations between staff and inmates are possible, and that the therapeutic alliance necessary for efficacious psychotherapy is also achievable. Third, although it is clear that the women in this study were far more frequently insecurely attached than would be expected for a sample drawn from the general population, and the predominant attachment style exhibited by these female offenders appeared to be Fearful (based both on RQ categorical, and RQ and RSQ dimensional, results), the meaning of the high dimensional scores on the Dismissing category (and also the far higher than normal categorical rate on the RQ for this category) needs further evaluation. The suggestion has been made here that the high Dismissing scores were reflecting a defensive rather than an actual lack of desire for connections with others. However, the accuracy of this interpretation is of practical importance because, as noted in an earlier chapter, Horowitz et al. (1993) found that the interpersonal problems reported on the Inventory of Interpersonal Problems (IIP) by Secure, Fearful, Preoccupied, and Dismissing individuals differed from one another, that the problems linked to the Fearful attachment style showed the greatest improvement in response to brief dynamic psychotherapy, and that those associated with the Dismissing style were the least amenable to treatment. Thus, the results of the present study, in which it is precisely these two styles that appeared to be most in evidence, indicate that attachment style is a topic worthy of further empirical attention in this population in

order to: (1) support or disconfirm the unusual attachment style prevalence rates found here; and (2), clarify the meaning of the high Dismissing scores in order clearly to consider the implications for selecting the most appropriate treatment strategies when offering therapy to female offenders.

Recommendations

A number of recommendations follow from the results of the current study, and are presented in this section. These include recommendations for the treatment of those presently incarcerated, for the broader issue of policy decision-making regarding female offenders, and for future research directions involving female offender participants.

Recommendations for the Treatment of Female Offenders

(1) The problematic personality and attachment characteristics identified in this sample suggest that programs designed to improve interpersonal functioning would be well-directed. Although intensive psychotherapy may be the approach of choice to create the most significant changes in interpersonal behaviour, resource limitations preclude the possibility of this form of intervention being made available even to every one of the small subset of inmates who desire such treatment, let alone to the entire population of female offenders. The fact that not all inmates would choose to participate in individual therapy provides another impediment to this approach. A "program-approach," where specific issues are targeted in a structured and time-limited way, may be preferable, first

because it is more cost-effective and thus can reach more individuals, and second because it may be perceived as less threatening than “therapy.”⁷ Problem areas such as communication skills, anger management, and conflict resolution could be targeted so that women are provided with increased skills to identify their own emotions and needs and to communicate these in an appropriate way to others, to resolve conflicts and disputes effectively and appropriately, and to learn to regulate their own emotions in healthy ways. These skills would be valuable for improving functioning both within and outside of the correctional institution. Information and skills relevant to choosing partners who are safe (i.e., non-violent, non-coercive, and not likely to promote dangerous lifestyles), reliable, and responsive would also be valuable. Improving the women’s skills in these interpersonal domains would reduce conflict and stress within the prison setting, thus making it a safer and healthier place for both inmates and staff, and would also provide women with some of the tools necessary to make lifestyle changes that would be likely to reduce recidivism. In recalling the work of I. Sommers and Baskin (1994), who identified integration into new social networks as an important factor for long-term female criminals who successfully desisted from offending, it seems clear that increasing interpersonal skills and knowledge about healthy relationships is an important potential mechanism to foster the creation of new, healthier social support systems.

⁷The intention here is to suggest that existing therapy resources be augmented by specific programs, not replaced by them.

(2) Individual therapy with female offenders would profitably focus explicit attention on attachment issues. Knowledge of an individual woman's attachment style can potentially provide valuable information about her cognitive and affective management of relational (including intra-therapeutic) material, and direct efficacious decision-making about intervention strategies. In addition, although the topic was not directly addressed in the current research, abuse histories are common among female offenders and attachment issues are highly relevant in tailoring treatment to the needs of specific individuals with particular abuse histories (e.g., Alexander & Anderson, 1994).

(3) The attachment literature indicates that insecure parents tend to have offspring who are also insecurely attached. Given the preponderance of insecurely attached women found in the present sample, this is cause for concern, particularly given the plethora of other potential life difficulties facing the children of incarcerated mothers. This issue is a difficult one to confront, because female offenders (at least the ones at BCCW) have generally refused to participate in any programs which deal with parenting issues (B. Roest, personal communication, 1993).⁸ Reluctance on the part of incarcerated women to attend parenting programs is understandable given the high rates at which they have either lost custody of their children or are too far from home to receive visits from them. In addition, parenting programs may be perceived by inmates as an indication that they

⁸Beverly Roest is the former Program Director at BCCW.

have failed in their roles as mothers, a perception which is probable to be offensive as well as painful and which is likely to result in a defensive rejection of the programs in question. Thus, although there is a clear need to address this issue, it is far less obvious how this might successfully be approached. Perhaps the material could be embedded in a more general program on human development which all inmates, whether they have children or not, are encouraged to take. Many adult relationship issues, including those specific to romantic relationships, could also be included in such a program.

(4) Substance abuse problems were, not unexpectedly, high in the sample. Although drug and alcohol programs are typically available in most prisons, they tend to be “top-down” in nature, with staff or contractors providing a service to the inmates. Myriad underlying and comorbid issues have been linked to substance abuse, but it seems likely that low self-esteem and perceived powerlessness⁹ are two important ones which might be addressed in a non-traditional way. A powerful shift in self-perception might be achieved by developing programs which put participants in the role of helper rather than, or in addition to, the role of one being helped. A drug and alcohol program is certainly one strong candidate for such an approach. Those who had completed a substance abuse program could, if they so chose, receive further training to enable them to be peer

⁹Many women appeared to be experiencing a lack of control in their lives. They had few or no job skills, often they had lost control (e.g., custody) of their children, they tended to have unreliable and insecure attachments to the significant others in their lives and were not getting what they wanted or needed from their primary relationships, and many appeared to be rather passive or ineffectual participants in what was happening to them legally, at BCCW, and in their broader lives at home.

counselors. Individuals can sometimes mobilize themselves to do for others what they cannot do for themselves. In addition, there is probably no stronger way clearly to convey to someone her or his own power and potential than to guide them into the role of helping and/or teaching others. J. B. Miller (1991), defining power as “the capacity to produce a change” (p.198), has highlighted the importance to women of using their power to foster the growth of others.¹⁰ Recognizing that it is essentially important to empower female offenders to effect positive changes in their *own* lives, promoting opportunities for them to assist each other would be respectful of traditional patterns of female interaction, increase the helper’s sense of efficacy, and foster relational bonds within the institution. This latter effect would likely have a positive impact on the general institutional atmosphere as well as improve specific interpersonal connections.

Recommendations Involving Policy-Level Issues

(1) The women in this sample tended to be relatively under-educated and to have low incomes. Most were employed, if at all, in low-paying, unskilled, service industry jobs (e.g., waitressing). Although a number had pursued educational upgrading and had at least some secondary education, very few had any kind of post-secondary training, be it academic, technical, or specific job training. In short, work experience and job skills

¹⁰Child-rearing is an obvious example of this but others abound, including those drawn from adult relationships in the personal (e.g., a wife who facilitates her husband’s career advancement by maintaining responsibility for time-consuming domestic chores) and the employment (e.g., a secretary who contributes to the success of her employer) domains.

were sorely lacking. This lack of marketable skills constitutes a significant barrier to effecting any kind of lifestyle change after release from prison, and the work programs typically available to women in prison¹¹ are not likely to alter their status on this dimension. The added stigma of having a criminal record will compound the difficulties these women face in finding post-release employment. Thus, one important recommendation is that a realistic job-training program be created which will provide inmates with an opportunity to obtain the genuinely marketable skills necessary to make them competitive candidates for well-paying employment. Such a program would have multiple benefits. If women are able to envision that becoming financially responsible for themselves is a realistic and obtainable goal, self-esteem is likely to improve and motivation to work on skill-enhancement is going to increase. If prison time is being served in a way which is perceived to be increasing one's chances for an improved quality of life, then individual, interpersonal, and institutional stress levels may decrease. Better post-release employment is also likely to decrease recidivism.

(2) Perhaps the most ambitious recommendation is that the entire philosophy behind incarceration of female offenders be reconsidered. The high rates of personality and attachment problems, the high rates of substance abuse, and the wide-ranging difficult

¹¹The work programs available at BCCW where this research was conducted include the beauty parlor, the canine program, ceramics, grounds work, horticulture shop, janitorial work, kitchen, and the tailor shop. Although somewhat varied, these work placements involve relatively low-skilled tasks (and, it might be added, "typical" women's work like cooking, cleaning, gardening, and sewing), and fail to provide inmates with contemporary marketable skills which will be of use to them after they return home.

life circumstances found in the current sample all highlight the obvious point that female offenders are a population containing numerous individuals with personally and interpersonally unhealthy lives. Although individuals should be held accountable for the choices they make, we are doing no one a service if the response we make to antisocial behaviour fails to include an emphasis on fostering change so that the antisocial behaviour will not be repeated. To ignore this aspect of the “societal time-outs” provided by prisons has costs for both the incarcerated individual and the other members of society. This is not the appropriate place to enter into the lengthy debate between proponents of the contrasting crime control / retribution and welfare state approaches to prisoner management, but it seems clear that the logical response to a population which is both so troubling and so troubled is to make intervention an integral part of incarceration.

An increased emphasis on intervention raises many issues, one of which is the form such intervention should take. Although wide dissemination of the specific programs recommended above would certainly provide one strategy for increasing the emphasis on treating offenders, a more radical approach would be to make intervention a systemic rather than a program-specific feature of incarceration. Under such a plan, prisons might take the form of therapeutic communities where all staff are at least peripherally involved in treatment, rather than the current situation where most staff are responsible for behaviour control only and a very small number of other (usually non-staff) personnel are involved in treatment provision. Selection for inclusion in such a

therapeutic community would have to be undertaken very carefully. Evidence exists that non-psychopaths recidivate at lower rates if they are treated but that the converse is true for psychopaths (e.g., Harris, Rice, & Cormier, 1991). In particular, therapeutic communities, focusing as they do on the fostering of empathy and social skills, appear to have the unintended consequence of providing psychopaths with new tools to exploit and manipulate others and actually elevate rates of violent recidivism over those for untreated controls (e.g., Rice, Harris, & Cormier, 1992). Thus, careful evaluation of the existence of psychopathic qualities in potential members would be a prerequisite for program inclusion, and more traditional prison environments would continue to be necessary to deal with those identified as high in psychopathy (at least until an effective method for dealing with psychopaths has been identified).

Finite funding resources are likely to be a major source of objection to the establishment of therapeutic communities within correctional settings. It is unfortunate and ironic that it continues to be easier to gain acceptance for the short-term financial savings incurred by limiting spending on treatment, than to acquire approval for the far greater long-term (and likely transgenerational) financial (not to mention social) benefits which would be realized by broadening the response to the treatment needs of female (and male) offenders.

Recommendations for Future Research Involving Female Offenders

- (1) The role of impulsivity in mediating personality and interpersonal difficulties

warrants further empirical attention, particularly in a population in which various facets of impulsivity are manifested at such high rates. It may be that an increased understanding of impulsivity will prove valuable in increasing our theoretical understanding of personality pathology, as well as in directing therapeutic efforts at ameliorating the associated social and interpersonal dysfunction.

(2) The current study represents a preliminary examination of adult attachment patterns in female offenders. Replication of the results reported here would provide increased confidence for future treatment or policy decisions based on assumptions about insecure attachment rates in this population. In addition, although the current results clearly indicate that insecure attachment is prevalent in this population, more information is required about rates and manifestations of specific types of insecure attachment. In particular, the meaning of high rates of both Fearful and Dismissing attachment styles has important theoretical and practical (in the form of treatment strategies) implications. Interview methods rather than paper and pencil measures of attachment may permit a more rigorous and elaborate evaluation of attachment styles, and avoid the participant comprehension problems identified (particularly for the RQ) in this study.

(3) An empirical investigation into the impact of high rates of insecure attachment in female offenders on their offspring seems warranted. Given the transgenerational nature of attachment styles and the pervasive negative consequences to those who are

insecurely attached, it may be that attachment style is one of the mediating variables which contributes to the problems faced by children of female offenders. If so, this area provides an obvious target for examining specific intervention strategies aimed at reducing the risk status of children of incarcerated mothers.

(4) Normative data for rates of psychopathy in female offenders are definitely needed. Current norms are based on an insufficient sample size, and the results of this study suggest that male norms may provide an inadequate basis of comparison for evaluating female's PCL:SV scores. Psychopathy has been repeatedly linked to risk for recidivism, and PCL scores are gaining increasing acceptance as an important research and clinical tool. They are also being increasingly relied upon by the courts in sentencing decisions. It is incumbent upon those using testing materials to ensure that assessments are made through comparisons with *appropriate* norms. In addition, further empirical attention is required to elucidate possible sex differences on the affective and interpersonal as opposed to the behavioural manifestations of psychopathy which were suggested by the present results.

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**APPENDIX A: SUMMARY OF ADMISSIONS AND DISCHARGES BETWEEN
JANUARY, 1995 - JUNE, 1995**

Table A-1

Breakdown of Admissions to the Secure Facility at BCCW During the First Six Months of 1995

ADMISSION CATEGORIES	AVERAGE PER MONTH	RANGE
TOTAL ADMISSIONS	92.8	65 - 111
REMAND	51.0	35 - 62
SENTENCED	36.8	21 - 57
FEDERAL	2.7	1 - 6
INTERMITTENT	3.0	0 - 5
EX-PAROLE (B.C.)	2.2	0 - 5
EX-PAROLE (NATIONAL)	0.3	0 - 1
TRANSFER FROM OLU	3.0	1 - 6
EX-BAIL	4.0	2 - 10
EX-EMP/TEMP. ABSENCE	1.7	1 - 4
EX-ESCAPE	1.5	0 - 2
EX-IMMIGRATION	1.7	0 - 3

Note: Category totals are greater than total admissions due to individuals being assigned to more than one category and to possible staff recording errors). EMP=Electronic Monitoring Program, OLU=Open Living Unit, an open custody facility at BCCW.

APPENDIX A, CONT.

Table A-2*Breakdown of Releases from the Secure Facility at BCCW During the First Six Months of 1995*

RELEASE CATEGORIES	AVERAGE PER MONTH	RANGE
TOTAL RELEASES	91.3	74 - 103
REMAND	33.3	22 - 47
SENTENCED	35.0	22 - 47
FEDERAL	0.7	0 - 2
END OF SENTENCE (EOS)	26.2	14 - 40
INTERMITTENT EOS	0.7	0 - 1
TO B.C. PAROLE	1.5	1 - 2
TO NATIONAL PAROLE	1.2	0 - 5
RELEASED AT COURT	27.0	23 - 30
RELEASED TO BAIL	18.2	14 - 25
REL. TO IMMIGRATION	2.2	0 - 4
RELEASED TO ESCAPE	0.7	0 - 3
RELEASED TO FPI	2.0	0 - 5
REL. TO FINE PAYMENT	3.3	1 - 7
TRANSFER TO OLU	11.2	7 - 15
TRANSFER TO EMP	2.2	1 - 3

Note: Category totals are greater than total admissions due to individuals being assigned to more than one category and to possible staff recording errors. EMP=Electronic Monitoring Program, EOS=End of Sentence, FPI=Forensic Psychiatric Institute, OLU=Open Living Unit, an open custody facility at BCCW.

APPENDIX B: QUESTIONNAIRE

PERSONALITY AND ATTACHMENT-BACKGROUND INFORMATION

1. AGE: _____
2. MARITAL STATUS: Single Separated Divorced Common-Law Married Widowed
(Please circle one)
3. ARE YOU WORKING AT BCCW? Yes No (Please circle one)
4. IF YES: WHAT IS YOUR OCCUPATION HERE? _____
5. ARE YOU GOING TO SCHOOL AT BCCW? Yes No (Please circle one)
6. WHAT GRADE DID YOU GET TO IN REGULAR SCHOOL? _____
THROUGH UPGRADING? _____
7. WHAT IS YOUR MOST COMMON OCCUPATION OUTSIDE OF BCCW?

8. WHAT IS THE LONGEST PERIOD OF TIME YOU HAVE SPENT IN THE
SAME JOB? _____
9. WHEN DID YOU LAST WORK OUTSIDE OF BCCW? _____
10. WHAT WAS YOUR APPROXIMATE INCOME IN THE YEAR BEFORE
YOUR CURRENT ARREST?
\$0 - \$10,000 \$10,001 - \$20,000 \$20,001 - \$30,000 \$30,001 - \$40,000
\$40,001 - \$50,000 \$50,001 - \$100,000 Over \$100,000 (Please circle one)
11. HOW MANY SIBLINGS (BROTHERS AND SISTERS) DO YOU HAVE?

12. HOW MANY OF THESE SIBLINGS WERE RAISED IN THE SAME
HOME AS YOU WERE?

- 13. WERE YOU:** Raised by your birth mother and father
Raised by your birth mother
Raised by your birth father
Raised by your birth mother and step-father
Raised by your birth father and step-mother
Raised by grandparents
Raised by other relatives
Raised by adoptive parents
Raised in foster care

(Please place a checkmark beside one or more which best describe your situation)

- 14. ARE YOU CURRENTLY IN A ROMANTIC RELATIONSHIP?** Yes No
(Please circle one)

- 15. DO YOU HAVE ROMANTIC RELATIONSHIPS:** (Please circle one)

Only with men Only with women With both men and women

- 16. HOW MANY SERIOUS ROMANTIC RELATIONSHIPS HAVE YOU HAD?**

- 17. HOW LONG DID YOUR LONGEST ROMANTIC RELATIONSHIP LAST?**

- 18. HOW MANY CLOSE PERSONAL FRIENDSHIPS DO YOU HAVE?**

- 19. HOW LONG HAS YOUR LONGEST FRIENDSHIP LASTED?**

- 20. HOW MANY CHILDREN DO YOU HAVE?** _____

21. IF YOU HAVE CHILDREN: WHEN YOU ARE AT HOME, DO YOUR CHILDREN:

Live with you Live with their father Live with a relative

Live in foster care Live with adoptive parents

(If your children are not all living in the same place, please circle more than one)

22. CURRENT LEGAL STATUS: Remand Provincial Sentence Federal Sentence
Immigration Hold (Please circle one)

23. MOST SERIOUS CURRENT CHARGES: (1) _____

(2) _____

(3) _____

24. HOW LONG HAVE YOU BEEN AT BCCW FOR THESE CHARGES?

25. IF SENTENCED: a) HOW LONG IS YOUR SENTENCE? _____

b) HOW MUCH OF IT HAVE YOU SERVED? _____

26. NUMBER OF PREVIOUS ARRESTS: 1 2 3 4 5 or more
(Please circle one)

27. NUMBER OF PREVIOUS CONVICTIONS: 1 2 3 4 5 or more
(Please circle one)

28. HOW OLD WERE YOU AT YOUR FIRST ARREST? _____

29. WHAT IS THE LONGEST PREVIOUS SENTENCE YOU HAVE RECEIVED?

30. WHICH OF THE FOLLOWING HAVE YOU USED?

Please CIRCLE the letter beside each substance you have tried.

- a) *Alcohol*
- b) *Marijuana (Pot) or Hashish*
- c) *Cocaine or crack*
- d) *Speed, amphetamines, or other stimulant*
- e) *Heroin, morphine, Percodan, or other opioid*
- f) *Methadone*
- g) *Ritalin and Talwin (Rs & Ts)*
- h) *Valium, Quaaludes, or other sedatives*
- i) *MDA, Extasy, or Poppers*
- j) *Other*

Please List: _____

Now please go back to the list above and UNDERLINE those substances you feel you have been addicted to or dependent on at some point in time.

Finally, please place a CHECKMARK beside those substances you used in the six months prior to your last arrest.

31. HAS YOUR USE OF DRUGS AND/OR ALCOHOL HAD A NEGATIVE EFFECT ON ANY OF YOUR PREVIOUS ROMANTIC RELATIONSHIPS?
 Yes No (Please circle one)

32. HAS YOUR USE OF DRUGS AND/OR ALCOHOL HAD A NEGATIVE EFFECT ON YOUR CURRENT ROMANTIC RELATIONSHIP?
 Yes No (Please circle one)

33. HAS A *PREVIOUS PARTNER'S* USE OF DRUGS AND/OR ALCOHOL HAD A NEGATIVE EFFECT ON ANY OF YOUR ROMANTIC RELATIONSHIPS? Yes No (Please circle one)

34. HAS *YOUR CURRENT PARTNER'S* USE OF DRUGS AND/OR ALCOHOL HAD A NEGATIVE EFFECT ON YOUR CURRENT ROMANTIC RELATIONSHIP? Yes No (Please circle one)

35. HAS YOUR CURRENT PARTNER EVER BEEN ARRESTED? Yes No
(Please circle one)

IF YES: a) HOW MANY TIMES HAS YOUR PARTNER BEEN ARRESTED?

1 2 3 4 5 or more (Please circle one)

b) IS YOUR PARTNER CURRENTLY IN JAIL? Yes No
(Please circle one)

36. DO YOU PLAN ON RETURNING TO YOUR PARTNER WHEN YOU LEAVE BCCW? Yes No (Please circle one)

37. HOW WOULD YOU RATE YOUR LEVEL OF SATISFACTION WITH YOUR CURRENT ROMANTIC RELATIONSHIP?
Very High High Moderate Low Very Low Not in relationship
(Please circle one)

RSQ

Please read each of the following statements and rate the extent to which it describes your feelings about romantic relationships. Think about all of your romantic relationships, past and present, and respond in terms of how you generally feel in these relationships.

	Not at all like me	2	Somewhat like me	4	Very much like me
1. I find it difficult to depend on other people.	1	2	3	4	5
2. It is very important to me to feel independent.	1	2	3	4	5
3. I find it easy to get emotionally close to others.	1	2	3	4	5
4. I want to merge completely with another person.	1	2	3	4	5
5. I worry that I will be hurt if I allow myself to become too close to others.	1	2	3	4	5
6. I like to be with people.	1	2	3	4	5
7. I am comfortable without close emotional relationships.	1	2	3	4	5
8. I am not sure that I can always depend on others to be there when I need them.	1	2	3	4	5
9. I want to be completely emotionally intimate with others.	1	2	3	4	5
10. I worry about being alone.	1	2	3	4	5
11. I am comfortable depending on other people.	1	2	3	4	5
12. I welcome the opportunity to mix socially.	1	2	3	4	5
13. I often worry that romantic partners don't really love me.	1	2	3	4	5
14. I find it difficult to trust others completely.	1	2	3	4	5
15. I worry about others getting too close to me.	1	2	3	4	5
16. I want emotionally close relationships.	1	2	3	4	5
17. I am comfortable having other people depend on me.	1	2	3	4	5
18. I prefer working with others rather than alone.	1	2	3	4	5
19. I worry that others don't value me as much as I value them.	1	2	3	4	5
20. I find that people are never there when you need them.	1	2	3	4	5
21. My desire to merge completely sometimes scares people away.	1	2	3	4	5
22. It is very important to me to feel self-sufficient.	1	2	3	4	5
23. I am nervous when anyone gets too close to me.	1	2	3	4	5

	Not at all like me		Somewhat like me		Very much like me
24. I find people more stimulating than anything else.	1	2	3	4	5
25. I often worry that romantic partners won't want to stay with me.	1	2	3	4	5
26. I prefer not to have other people depend on me.	1	2	3	4	5
27. I worry about being abandoned.	1	2	3	4	5
28. I am somewhat uncomfortable being close to others.	1	2	3	4	5
29. I find that others are reluctant to get as close as I would like.	1	2	3	4	5
30. I'd be unhappy if I were prevented from making many social contacts.	1	2	3	4	5
31. I prefer not to depend on others.	1	2	3	4	5
32. I know that others will be there when I need them.	1	2	3	4	5
33. I worry about having others not accept me.	1	2	3	4	5
34. Romantic partners often want me to be closer than I feel comfortable being.	1	2	3	4	5
35. In relationships, I often wonder whether my partner really cares about me.	1	2	3	4	5
36. I want to get close to people but I worry about being hurt by them.	1	2	3	4	5
37. I find it relatively easy to get close to others.	1	2	3	4	5
38. When I show my feelings for others, I'm afraid they will not feel the same about me.	1	2	3	4	5

RELATIONSHIP QUESTIONNAIRE

PLEASE READ DIRECTIONS!

1. Following are descriptions of four general relationship styles that people often report.
Please read each description and **CIRCLE** the letter corresponding to the style that *best* describes you or is *closest* to the way you *generally* are in your close relationships.
 - A.** It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me.
 - B.** 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.
 - C.** I want to be completely emotionally intimate with others, but I 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.
 - D.** 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 have others depend on me.

2. Now please rate each of the following relationship styles according to the extent to which you think each description corresponds to your general relationship style.

- A.** It is easy for me to become emotionally close to others. I am comfortable depending on them and having them depend on me. I don't worry about being alone or having others not accept me.
- B.** 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.
- C.** I want to be completely emotionally intimate with others, but I 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.
- D.** 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 have others depend on me.

	Not at all like me		Somewhat like me			Very much like me	
Style A.	1	2	3	4	5	6	7
Style B.	1	2	3	4	5	6	7
Style C.	1	2	3	4	5	6	7
Style D.	1	2	3	4	5	6	7

3. Overall, how satisfied or happy are you with your present network of close relationships?

1	2	3	4	5	6	7	8	9
Extremely unhappy		Somewhat unhappy		Somewhat happy		Very happy		Perfectly happy

People sometimes report that their relationship styles differ depending on the people they are with. Thus, you may feel that your style varies with different friends, family members, or romantic partners.

In the next few pages, you will be asked to rate yourself on your style in three separate relationships -- in your relationship with the person you are closest to here in BCCW (either platonic or romantic), in your relationship with your current romantic partner outside of BCCW (or most recent one, if you are not currently in a romantic relationship outside of BCCW), and with your closest platonic friend outside of BCCW.

4. Think of your relationship with the person you are closest to here in BCCW. This person will be referred to as "X". Is this relationship: (Please circle one)
 Non-Sexual (Platonic) Sexual and/or Romantic

Please read each description and CIRCLE the letter corresponding to the style that best describes you or is closest to the way you generally are in your relationship with this person. Then RATE to what extent each of the four styles is descriptive of the way you are in your relationship with this person.

- A. It is easy for me to become emotionally close with X. I am comfortable depending on her and having her depend on me. I am confident that she accepts me and that she will always be available for me.
- B. I am uncomfortable getting close to X. I want an emotionally close relationship with her, but I find it difficult to trust her completely, or to depend on her. I worry that I will be hurt if I allow myself to become too close to her.
- C. I want to be completely emotionally intimate with X, but I often find that she is reluctant to get as close as I would like. I am uncomfortable not being close with her, but I sometimes worry that she doesn't value me as much as I value her.
- D. I am comfortable without a close emotional relationship with X. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on her or have her depend on me.

	Not at all like me		Somewhat like me			Very much like me	
Style A.	1	2	3	4	5	6	7
Style B.	1	2	3	4	5	6	7
Style C.	1	2	3	4	5	6	7
Style D.	1	2	3	4	5	6	7

5. Overall, how satisfied or happy are you with your present relationship with X?

1	2	3	4	5	6	7	8	9
Extremely unhappy		Somewhat unhappy		Somewhat happy		Very happy		Perfectly happy

6. Think of your relationship with your current or most recent romantic relationship outside of BCCW. This person will be referred to as "Y". Please read each description and circle the letter corresponding to the style that best describes you or is closest to the way you generally are in your relationship with this person. Then rate to what extent each of the four styles is descriptive of the way you are in your relationship with this person.

- A.** It is easy for me to become emotionally close with Y. I am comfortable depending on Y and having Y depend on me. I am confident that Y accepts me and that Y will always be available for me.
- B.** I am uncomfortable getting close to Y. I want emotionally close relationship with Y, but I find it difficult to trust Y completely, or to depend on Y. I worry that I will be hurt if I allow myself to become too close to Y.
- C.** I want to be completely emotionally intimate with Y, but I often find that Y is reluctant to get as close as I would like. I am uncomfortable not being close with Y, but I sometimes worry that Y doesn't value me as much as I value Y.
- D.** I am comfortable without a close emotional relationship with Y. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on Y or have Y depend on me.

	Not at all like me		Somewhat like me			Very much like me	
Style A.	1	2	3	4	5	6	7
Style B.	1	2	3	4	5	6	7
Style C.	1	2	3	4	5	6	7
Style D.	1	2	3	4	5	6	7

7. Overall, how satisfied or happy are you with your present relationship with Y?

1	2	3	4	5	6	7	8	9
Extremely unhappy		Somewhat unhappy		Somewhat happy		Very happy		Perfectly happy

8. Think of your relationship with your closest platonic (non-sexual) friend outside of BCCW. This person will be referred to as "Z". Please read each description and circle the letter corresponding to the style that best describes you or is closest to the way you generally are in your relationship with this person. Then rate to what extent each of the four styles is descriptive of the way you are in your relationship with this person.

- A.** It is easy for me to become emotionally close with Z. I am comfortable depending on Z and having Z depend on me. I am confident that Z accepts me and that Z will always be available for me.
- B.** I am uncomfortable getting close to Z. I want emotionally close relationship with Z, but I find it difficult to trust Z completely, or to depend on Z. I worry that I will be hurt if I allow myself to become too close to Z.
- C.** I want to be completely emotionally intimate with Z, but I often find that Z is reluctant to get as close as I would like. I am uncomfortable not being close with Z, but I sometimes worry that Z doesn't value me as much as I value Z.
- D.** I am comfortable without a close emotional relationship with Z. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on Z or have Z depend on me.

	Not at all like me		Somewhat like me			Very much like me	
Style A.	1	2	3	4	5	6	7
Style B.	1	2	3	4	5	6	7
Style C.	1	2	3	4	5	6	7
Style D.	1	2	3	4	5	6	7

9. Overall, how satisfied or happy are you with your present relationship with Z?

1	2	3	4	5	6	7	8	9
Extremely unhappy		Somewhat unhappy		Somewhat happy		Very happy		Perfectly happy

APPENDIX C: CONSENT FORM

A STUDY OF PERSONALITY AND ATTACHMENT

INVITATION TO PARTICIPATE: You are invited to participate in a study to learn more about personality and how women form attachments to others in adulthood.

EXPLANATION OF PROCEDURES: If you decide to participate in this study, you will be given an audiotaped psychological interview that may last up to 90 minutes, and some brief questionnaires to complete. You will also be asked to give your permission for the researchers to examine your BCCW chart for further information.

POTENTIAL RISKS AND DISCOMFORTS: It is not anticipated that you will experience any negative effects through your participation in this study. However, should you find that you experience any emotional upset because of your participation, supportive counseling will be provided to you. This project is separate from the day-to-day operations of BCCW. Information obtained about you will not be made available to BCCW staff or anywhere else in the criminal justice system.

POTENTIAL BENEFITS: You will be offered the opportunity for a brief feedback session regarding your interview and questionnaire results if you desire one. You will also be paid \$5.00 at the completion of the interview. There are no other direct benefits to you from this research other than the knowledge that you may help us learn more about personality and attachment. Your decision to participate -- or not to participate in the study -- will have no effect on your stay at BCCW.

CONFIDENTIALITY OF DATA: Any information that is obtained during this study will remain confidential to the extent permitted by law. You will not be writing your name or any other identifying information on the research material. Materials will be held in a secure location for a series of studies on personality and attachment, and will then be destroyed.

WITHDRAWAL FROM THE STUDY: Participation is voluntary. Your decision whether or not to participate will not affect your current or future relationship with BCCW or with any other branch of the criminal justice system.

OFFER TO ANSWER QUESTIONS: If you have any questions, please feel free to ask the researcher. If you have any questions later you may call the researcher or any of the other individuals listed on the next page. Thank you for your time and interest.

I have volunteered to participate in this project, which is being conducted by Susan Turnbull of the Psychology Department at Simon Fraser University. I have been informed of the basic procedures of the study by the principal researcher, and by reading the first page of this informed consent form. I take part in this study with the understanding that I may withdraw my participation in the experiment at any time, and that I may register any complaint with the primary researcher, the other researchers listed below, or with the Chair of the Psychology Department, Dr. Christopher Webster.

SIGNATURE OF PARTICIPANT _____ DATE: _____

SIGNATURE OF WITNESS _____ DATE: _____

RESEARCHERS:

Susan Turnbull, M.Sc.	291-5868
Ronald Roesch, Ph.D.	291-3370
Stephen Hart, Ph.D.	291-5485
James Ogloff, Ph.D.	291-3093
Department of Psychology	291-3354
Simon Fraser University	
Burnaby, B. C., V5A 1S6	

APPENDIX D: FEEDBACK FORM

SIMON FRASER UNIVERSITY
UNIVERSITY RESEARCH ETHICS REVIEW COMMITTEE

PARTICIPANT FEEDBACK FORM

Completion of this form is **OPTIONAL**, and is not a requirement of participation in the project. However, if you have served as a subject in a project and would care to comment on the procedures involved, you may complete the following form and send it to the Chair, University research Ethics Review Committee. All information received will be treated in a strictly confidential manner.

NAME OF PRINCIPAL INVESTIGATOR: Susan Turnbull
 TITLE OF PROJECT: Personality and Attachment
 DEPARTMENT: Department of Psychology

Did you sign an Informed Consent Form before participating in the project? Yes _____ No _____

Were there significant deviations from the originally stated procedures? Yes _____ No _____

I wish to comment on my involvement in the above project which took place at BCCW on:

_____ at _____
 (date) (time)

COMMENTS: _____

If you choose, you may also call any of the researchers listed below to discuss your feedback or concerns:

- | | |
|--|----------|
| Susan Turnbull, M.Sc. (Principal Researcher) | 291-5868 |
| Ronald Roesch, Ph.D | 291-3370 |
| Stephen Hart, Ph.D. | 291-5485 |
| James Ogloff, Ph.D. | 291-3093 |
| Christopher Webster, Ph.D. (Chair of Psychology) | 291-3358 |

Completion of this section is optional.

YOUR NAME: _____
 ADDRESS: _____
 TELEPHONE: _____

This form should be sent to the **Chair, University Ethics Review Committee,**
c/o Vice-President, Research, Simon Fraser University, Burnaby, B. C., V5A 1S6.

**APPENDIX E: FULL CORRELATION MATRIX FOR DAPP-IV HIGHER ORDER
AND COMPONENT FACTORS**

	LABILITY	Affective Lability	Anxiety	Identity Problems	Insecure Attachment	Passive Opposit'nl
LABILITY	--					
Affective Lability	.78***	--				
Anxiety	.83***	.71***	--			
Identity Problems	.77***	.57***	.54***	--		
Insecure Attachment	.73***	.39**	.53***	.49***	--	
Passive Oppositionality	.77***	.61***	.62***	.66***	.47**	--
Social Avoidance	.70***	.42**	.54***	.49***	.30*	.48***
Submissiveness	.55***	.22	.33*	.31*	.43**	.28
Suspiciousness	.60***	.45**	.51***	.46**	.48***	.44**
ANTAGONISM	.44**	.50***	.30*	.39**	.36*	.48***
Interpersonal Disesteem	.51***	.52***	.36**	.52***	.37**	.58***
Narcissism	.32*	.36*	.25	.14	.39**	.18
Rejection	.19	.31*	.09	.18	.13	.33*
COMPULSIVITY	.07	.01	.15	-.07	.10	-.25
Compulsivity	.07	.01	.15	-.07	.10	-.25
INTERPERS. UNRESPONSIV.	.51***	.33*	.50***	.53***	.14	.40**
Intimacy Problems	.18	.08	.25	.19	-.11	.11
Restricted Expression	.62***	.42**	.57***	.64***	.27	.50***
IMPULSIVE STIM. SEEKING	.63***	.64***	.58***	.49***	.40**	.63***
Cognitive Distortion	.46**	.48***	.47***	.37**	.34*	.45**
Conduct Problems	.48***	.49***	.43**	.27	.20	.54***
Self Harm	.49***	.51***	.38**	.36**	.39**	.51***
Stimulus Seeking	.40**	.37**	.40**	.42**	.25	.31*

*** $p < .001$. ** $p < .01$. * $p < .05$.

APPENDIX E, CONT.

	Social Avoidance	Submissive	Suspicious	ANTAGO- NISM	Interpers. Disesteem	Narcissism
LABILITY						
Affective Lability						
Anxiety						
Identity Problems						
Insecure Attachment Passive Oppositionality Social Avoidance	--					
Submissiveness	.48***	--				
Suspiciousness	.27	.06	--			
ANTAGONISM	.16	-.07	.35*	--		
Interpersonal Disesteem	.22	.00	.35*	.88***	--	
Narcissism	.10	.09	.22	.71***	.41**	--
Rejection	.04	-.25	.26	.85***	.62***	.48***
COMPULSIVITY	.12	.08	.18	-.18	-.29*	.02
Compulsivity	.12	.08	.18	-.18	-.29*	.02
INTERPERS. UNRESPONSIV.	.60***	.11	.41**	.23	.30*	.05
Intimacy Problems	.39**	.04	.13	.08	.09	-.02
Restricted Expression	.62***	.13	.50***	.28*	.37**	.08
IMPULSIVE STIM. SEEKING	.32*	.16	.44**	.60***	.61***	.38**
Cognitive Distortion	.15	.08	.37**	.43**	.46**	.14
Conduct Problems	.38**	.21	.28	.47**	.51***	.27
Self Harm	.21	.14	.29*	.35*	.34*	.29*
Stimulus Seeking	.18	.05	.32*	.47**	.43**	.37**

*** $p < .001$. ** $p < .01$. * $p < .05$.

APPENDIX E, CONT.

	Rejection	COMPUL- SIVITY	Compul- sivity	INTERP. UNRESP.	Intimacy Problems	Restricted Expression
LABILITY						
Affective Liability						
Anxiety						
Identity Problems						
Insecure Attachment Passive Oppositionality Social Avoidance						
Submissiveness						
Suspiciousness						
ANTAGONISM						
Interpersonal Disesteem Narcissism						
Rejection	--					
COMPULSIVITY	-.09	--				
Compulsivity	-.09	--	--			
INTERPERS. UNRESPONSIV.	.17	.08	.08	--		
Intimacy Problems	.11	.14	.14	.82***	--	
Restricted Expression	.18	.03	.03	.94***	.57***	--
IMPULSIVE STIM. SEEKING	.45**	-.07	-.07	.41**	.28	.42**
Cognitive Distortion	.40**	.07	.07	.29*	.24	.28
Conduct Problems	.32*	-.21	-.21	.38**	.33*	.34*
Self Harm	.20	-.25	-.25	.13	.06	.16
Stimulus Seeking	.35*	.18	.18	.34*	.15	.40**

*** $p < .001$. ** $p < .01$. * $p < .05$.

APPENDIX E, CONT.

	IMPULS. STIM. SEEKING	Cognitive Distortion	Conduct Problems	Self Harm	Stimulus Seeking
LABILITY					
Affective Lability					
Anxiety					
Identity Problems					
Insecure Attachment Passive Oppositionality Social Avoidance					
Submissiveness					
Suspiciousness					
ANTAGONISM					
Interpersonal Disesteem Narcissism					
Rejection					
COMPULSIVITY					
Compulsivity					
INTERPERS. UNRESPONSIV.					
Intimacy Problems Restricted Expression					
IMPULSIVE STIM. SEEKING	--				
Cognitive Distortion	.74***	--			
Conduct Problems	.84***	.46**	--		
Self Harm	.63***	.35*	.49***	--	
Stimulus Seeking	.66***	.32*	.44**	.06	--

*** $p < .001$. ** $p < .01$. * $p < .05$.

**APPENDIX F: A COMPARISON BETWEEN CURRENT RESULTS ON THE RQ AND
RSQ, AND RESULTS ON THE RQ, RSQ, AND ATTACHMENT INTERVIEW
PREVIOUSLY REPORTED FOR A SAMPLE OF UNIVERSITY WOMEN**

ATTACHMENT CLASSIFICATION	MEAN SCALED SCORES AND STANDARD DEVIATIONS OBTAINED IN THE PRESENT STUDY		MEAN SCALED SCORES AND STANDARD DEVIATIONS REPORTED BY SCHARFE AND BARTHOLOMEW (1994)		
	RQ (<i>N</i> = 49)	RSQ (<i>N</i> = 50)	RQ (<i>N</i> = 80)	RSQ ^a	INTERVIEW (<i>N</i> = 80)
SECURE	.49** (.32)	.59** (.14)	.65 (.26)	.66 (.13)	.49 (.17)
FEARFUL	.67*** (.28)	.72*** (.16)	.48 (.29)	.52 (.12)	.35 (.18)
PREOCCUPIED	.50 (.29)	.55 (.17)	.46 (.28)	.60 (.16)	.44 (.19)
DISMISSING	.53** (.27)	.70*** (.13)	.39 (.24)	.57 (.14)	.21 (.13)

Note: Scharfe and Bartholomew's (1994) interview results are presented for casual comparison only. Statistical analyses reported here were conducted comparing the two sets of RSQ results with one another and the two sets of RQ results with one another.

^a *N* = 80 for Secure and Fearful, *N* = 79 for Preoccupied, and *N* = 78 for Dismissing.

*** *p* < .001. ** *p* < .01.

APPENDIX G: FULL CORRELATION MATRIX FOR ALL OF THE RQ VERSIONS

	Standard Secure	Standard Fearful	Standard Preoccup'd	Standard Dismissing	Standard Self-Model	Standard Oth.-Model
Standard Secure	--					
Standard Fearful	-.43**	--				
Standard Preoccupied	-.34*	.39**	--			
Standard Dismissing	-.07	-.27	-.28	--		
Standard Self-Model	.66***	-.77***	-.75***	.52***	--	
Standard Other-Model	.65***	-.41**	.27	-.54***	.12	--
BCCW Secure	.46**	-.15	-.18	-.11	.26	.31*
BCCWFearful	-.23	.20	.34*	-.20	-.35*	.04
BCCW Preoccupied	-.22	.17	.45**	.01	-.31*	.02
BCCW Dismissing	-.27	.26	.18	-.11	-.30*	-.14
BCCW Self-Model	.29	-.10	-.32*	-.04	.25	.07
BCCW Other-Model	.39**	-.22	-.14	.08	.31*	.23
Romantic Secure	.41**	-.32*	.02	-.11	.24	.46**
Romantic Fearful	-.05	.45**	.30*	-.18	-.35*	-.01
Romantic Preoccupied	.02	.19	.43**	-.43**	-.37*	.36*
Romantic Dismissing	-.21	.09	.04	.34*	-.02	-.31*
Romantic Self-Model	.12	-.43**	-.34*	.41**	.47**	-.09
Romantic Other-Model	.32*	-.29*	.07	-.33*	.09	.53***
Friend Secure	.30*	-.16	-.07	.04	.22	.21
Friend Fearful	-.04	.26	.43**	-.08	-.29	.11
Friend Preoccupied	-.10	.27	.60***	-.17	-.41**	.21
Friend Dismissing	-.19	-.03	.23	.06	-.13	-.01
Friend Self-Model	.10	-.35*	-.42**	.18	.37*	-.08
Friend Other-Model	.21	-.04	-.05	-.07	.09	.15

*** $p < .001$. ** $p < .01$. * $p < .05$.

APPENDIX G, CONT.

	BCCW Secure	BCCW Fearful	BCCW Preoccup'd	BCCW Dismissing	BCCW Self-Model	BCCW Oth.-Model
Standard Secure						
Standard Fearful						
Standard Preoccupied						
Standard Dismissing						
Standard Self-Model						
Standard Other-Model						
BCCW Secure	--					
BCCW Fearful	-.34*	--				
BCCW Preoccupied	-.18	.58***	--			
BCCW Dismissing	-.41**	-.01	-.02	--		
BCCW Self-Model	.53***	-.80***	-.72***	.27	--	
BCCW Other-Model	.83***	-.36*	.08	-.73***	.20	--
Romantic Secure	.39**	-.01	.16	-.19	.06	.38*
Romantic Fearful	.16	-.03	-.08	.23	.23	-.04
Romantic Preoccupied	.15	.13	.21	.06	-.02	.09
Romantic Dismissing	-.35*	.00	.11	.36*	-.05	-.33*
Romantic Self-Model	-.11	-.06	.06	-.07	-.09	.02
Romantic Other-Model	.34*	.07	.17	-.32*	-.06	.39**
Friend Secure	.34*	-.13	-.26	-.04	.33*	.16
Friend Fearful	-.19	.37*	.15	.21	.20	-.29
Friend Preoccupied	.10	.32*	.25	.27	-.03	-.10
Friend Dismissing	-.20	-.14	.14	.18	-.02	-.09
Friend Self-Model	.07	-.47**	-.23	-.16	.23	.20
Friend Other-Model	.44**	.01	-.13	-.08	.25	.23

*** $p < .001$. ** $p < .01$. * $p < .05$.

APPENDIX G, CONT.

	Romantic Secure	Romantic Fearful	Romantic Preoccup'd	Romantic Dismissing	Romantic Self-Model	Romantic Oth.-Model
Standard Secure						
Standard Fearful						
Standard Preoccupied						
Standard Dismissing						
Standard Self-Model						
Standard Other-Model						
BCCW Secure						
BCCWFearful						
BCCW Preoccupied						
BCCW Dismissing						
BCCW Self-Model						
BCCW Other-Model						
Romantic Secure	--					
Romantic Fearful	-.32*	--				
Romantic Preoccupied	-.11	.36*	--			
Romantic Dismissing	-.40**	.11	.02	--		
Romantic Self-Model	.51***	-.73***	-.70***	.18	--	
Romantic Other-Model	.75***	-.47**	.27	-.67***	.15	--
Friend Secure	.10	.26	.16	.11	-.10	-.03
Friend Fearful	.03	.25	.25	.15	-.16	-.04
Friend Preoccupied	.11	.42**	.47**	.01	-.36*	.11
Friend Dismissing	.23	-.17	.15	.14	.17	.21
Friend Self-Model	.10	-.33*	-.22	.05	.32*	.06
Friend Other-Model	-.04	.31*	.11	-.11	-.26	-.06

*** $p < .001$. ** $p < .01$. * $p < .05$.

APPENDIX G, CONT.

	Friend Secure	Friend Fearful	Friend Preoccup'd	Friend Dismissing	Friend Self- Model	Friend Oth.-Model
Standard Secure						
Standard Fearful						
Standard Preoccupied						
Standard Dismissing						
Standard Self-Model						
Standard Other-Model						
BCCW Secure						
BCCWFearful						
BCCW Preoccupied						
BCCW Dismissing						
BCCW Self-Model						
BCCW Other-Model						
Romantic Secure						
Romantic Fearful						
Romantic Preoccupied						
Romantic Dismissing						
Romantic Self-Model						
Romantic Other-Model						
Friend Secure	--					
Friend Fearful	-.18	--				
Friend Preoccupied	-.07	.66***	--			
Friend Dismissing	-.34*	.34*	.17	--		
Friend Self-Model	.36*	-.73***	-.78***	.15	--	
Friend Other-Model	.68***	-.42**	.07	-.80***	.02	--

*** $p < .001$. ** $p < .01$. * $p < .05$.