

Family Environment and Psychological Adjustment:
Physical and Sexual Abuse

by

Donna Chubaty

A thesis
presented to the University of Manitoba
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in
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Running Head: Family Environment and Psychological
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**FAMILY ENVIRONMENT AND PSYCHOLOGICAL ADJUSTMENT:
PHYSICAL AND SEXUAL ABUSE**

BY

DONNA CHUBATY

A Thesis submitted to the Faculty of Graduate Studies of the University of Manitoba in
partial fulfillment of the requirements for the degree of

MASTER OF ARTS
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Abstract

The present study investigated early familial and adult adjustment factors among persons from physical, abusive, intrafamilial and extrafamilial sexually abusive, and nonabusive childhood environments. Introductory psychology students at the University of Manitoba completed questionnaires which included measures of childhood physical abuse, intrafamilial and extrafamilial sexual abuse, and parental alcohol abuse; two family structure questionnaires; and two measures of psychological adjustment, one assessing current psychological distress and the other reflecting one's sense of individuation from family of origin. It was hypothesized that perceived early family structure would act as a mediator in the psychological impact of abuse. This hypothesis was most strongly confirmed with physical abuse. In addition, Bowen's (1978) construct of individuation was found to be significantly related to both perceived early family structure and current psychological adjustment.

INTRODUCTION

Young adults from home environments characterized by one or more types of abuse may experience social and emotional consequences that impact on their lives in a society that is only beginning to address maltreatment within the family. Persons with a family background including sexual abuse and/or physical abuse have frequently reported more psychological distress symptoms, such as depression, anxiety, and low self-esteem, than people from nonabusive households (Browne & Finkelhor, 1986; Galambos & Dixon, 1984). However, there appear to be important differences in long-term psychological adjustment to physical and sexual abuse, both between and within categories of abuse type. Some of these similarities and differences may be attributable to the more general structure and dynamics of the family. The next section will review recent findings which suggest that familial variables such as cohesion, adaptability, achievement orientation, and control may be more influential in adult psychological adjustment than abuse per se.

The bulk of the research performed on adult children with abusive backgrounds has concentrated on clinical populations, such as clients seeking treatment, which may not be representative of this diverse population. Recently, the importance of research with nonclinical samples has been emphasized to broaden the knowledge of the dynamics and consequences of physical and sexual abuse (Plescia-Pikus, Long-Suter, & Wilson, 1988; Browne & Finkelhor, 1986).

Prevalence and Patterns: Physically Abusive Family Environments

Physical abuse may be viewed as a set of parental behaviours which lie on a broad continuum of physically punishing behaviours ranging from spanking to battering. However, it has been difficult to operationally define where on the continuum parental discipline ends and abuse begins. Thus, prevalence findings vary, as they depend to a large extent on the inclusiveness of the physical abuse definition employed.

Recent research has outlined physically

disciplinary/abusive patterns on this continuum for university student populations. Berger, Knutson, Mehm, and Perkins (1988), in a study of 4,695 Iowa university student reports of parental disciplinary practices, found that 79.9% reported having been spanked as children, 19.9% hit (other than spanking), 34.7% hit with objects, and 12.1% injured by their parents. In defining physical abuse, the authors compared three criteria. Utilizing a liberal criterion of any potentially injurious behaviour constitutive of abuse, they found that over 50% of participants were classified as physically abused. A less liberal criterion based on a definition of abuse determined by a community survey (e. g., being struck by a coat hanger, any activity resulting in injury) yielded an estimate of 25%, and a more stringent criterion based on endorsement of a minimum number of items related to physical abuse (e. g., receiving burns, broken bones, or head injuries) resulted in an estimate of 9%. Only 27% of participants who met the most stringent criteria defined themselves as physically abused, suggesting a disparity between

personal and professional definitions of abuse.

Milner, Robertson, and Rogers (1990) reported that of 375 undergraduate university students, 91.2% received some type of physical maltreatment such as whipping, slapping, kicking, or punching; 21.1% sustained injuries ranging from bruises or welts to bone fractures. Runtz (1987) reported that 28.9% (84) of 291 female University of Manitoba students had been physically abused as children, with abuse defined as sustained injuries, or being beaten, kicked, or pushed down stairs by parents. Diverse or unclear definitions of physical abuse such as those employed in the above studies reflect the blurred distinction in the literature between physical abuse and physical discipline.

Sex and age differences in type of abuse have been noted. Rosenthal (1988) analyzed confirmed reports of abuse and neglect, and found that boys tended to sustain more frequent and more serious injuries than did girls. Among boys suffering physical injury, 9.4% were serious, whereas 7.4% injuries were serious for girls. Among abused

children aged 12 and under, boys outnumbered girls in serious and minor injury and neglect. Between the ages of 13 and 17, girls were more frequent victims of all types of maltreatment. Conversely, Milner, Robertson, and Rogers (1990) found that while more males than females (95.7% versus 87.7%) of all ages reported being physically abused, more females (22.3% versus 19.5%) reported physical injury following the abuse. The higher percentages and opposite results in the Milner et al. study may be explained by the broad definition of physical abuse and the comparatively minor injuries reported versus those of Rosenthal (1988).

Prevalence and Patterns: Sexually Abusive Family Environments

Prevalence estimates of sexual abuse vary according to the sample type and definition of sexual abuse employed, for example, age difference between abuser and abused, and contact versus non-contact sexual experiences. In addition, numerous researchers have contrasted intrafamilial and extrafamilial abusive experiences, a distinction

which becomes important when family dynamics and adult psychological adjustment are considered. In a survey of 930 adult women in San Francisco, Russell (1983) found that 31% reported extrafamilial sexual abuse before age 18, and 20% before age 14. At least one intrafamilial sexually abusive experience before age 18 was reported by 16% of the sample, and before age 14 by 12% of participants. In a later article, Russell (1984) reported that among women with stepfathers, 17% reported sexual abuse by him. Two percent of the sample reported sexual abuse by a biological father. Sexual abuse was defined by Russell (1983, 1984) as contact experiences ranging from unwanted but nonforceful kissing to forcible rape.

Greenwald, Leitenberg, Cado, and Tarran (1990) surveyed 54 sexually abused female nurses, with sexual abuse defined as sexual experience before age 15 with someone at least five years older and at least 16 years of age. They found that 19% (10) of the sexually abusive experiences were perpetrated by fathers, 37% (20) by other relatives, and 44% (24) by

nonfamily members. The disparity in the above prevalence figures is likely due to differences in samples and different definitions of family and sexual abuse.

Sexually abusive backgrounds do not appear to be uncommon among university populations. For example, Briere and Runtz (1990) reported that of 277 female undergraduates, 14.7% reported a sexually abusive history, defined as sexual contact between the participant and any individual at least five years older which occurred when she was age 14 or younger. In a study of 1,066 female university students, Harter, Alexander, and Neimeyer (1988) similarly found that 13.4% of the university student participants claimed that they were sexually abused by a family member during childhood. Nearly half (41%) reported that the sexual abuse was perpetrated by a paternal figure. Sexual abuse included contact experiences interpreted by the participant as sexual before age 18 with someone at least 5 years older than the participant.

Comparable data on male sexual abuse survivors

is scant. Few studies have included men who were subjected to sexual abuse as children. Kercher and McShane (1984) surveyed a random sample of Texas residents and found that of the 7.4% (79) of 1,056 respondents who reported sexual abuse, 18% (14) were male. More recently, Fromuth and Burkhart (1989) reported that of 582 male university students, 14% reported a sexually abusive experience in childhood or adolescence.

In a 1990 national American survey of adults, Finkelhor, Hotaling, Lewis, and Smith compared prevalences and characteristics of sexual abuse of females versus males. They found that 27% of women and 16% of men reported being sexually victimized before age 18, with sexual victimization liberally defined as experiences with someone ranging from exhibitionism to intercourse that the respondent would now consider sexual abuse. Boys were more likely than girls to be abused by strangers (40% versus 21%), whereas girls were more likely to be abused by family members (29% versus 11%). As Gordon (1990) noted, since boys are typically allowed more

freedom to be away from home, they may be more vulnerable to sexual abuse outside the home, whereas girls are more vulnerable to abuse within the home. Half of the offenders were perceived by the abused respondents to be authority figures.

Family Dynamics

The family environment of abusive versus nonabusive households has received increasing attention in the literature. The structure and dynamics of abusive families have been found to differ in numerous ways from those of nonabusive families. In addition, common underlying family structural variables seem to be associated with families experiencing different types of abuse. These points will be addressed in the following sections.

Physical Abuse. Wolfe (1985), in a review of the literature on physical abuse, found that family interaction in abusive families was more aversive and less prosocial than nonabusers. Child physical abuse seemed to be a function of the ability of parents to cope with the stresses of the parenting role in

interaction with situational demands.

Houck and King (1989), in a review of the literature, concluded that the family dimensions of cohesion (closeness) and adaptability (flexibility) may be most important in distinguishing the functioning of physically abusive families. The authors noted that families at high risk for abusive parenting tended to be extreme in cohesion and adaptability, whereas families at low risk had balanced scores on both these dimensions.

In administering the Family Environment Scale (Moos & Moos, 1981) to 23 abusing and 23 nonabusing couples, Justice and Calvert (1990) found that abusing couples reported less cohesion to and less independence from other family members than did nonabusing couples. Retrospective studies of college students from physically abusive families have similarly found these homes to be characterized by anger and aggression in the context of cold and distant family relationships, and negative verbal and physical communication (Chan, 1985).

The research discussed above supports earlier

theoretical work in the area of physically abusive families. Satir (1972) described the nature of physically abusive families in terms of a breakdown of four primary family functions: communication, self-worth, emotional rules, and links to the outside world. Child physical abuse in this view occurs in a family context where there is low self-esteem, indirect or vague communication, rigid emotional rules for operating within the family, and when links to society are feared.

Thorman (1980) noted that parents in abusive families are unable to provide leadership functions necessary to maintain the family's stability as a system. The system becomes disorganized and chaotic. Thorman also pointed to the high degree of symbiosis present in physically abusive families, creating a breakdown of boundaries between family members that generates tension and conflict.

Sexual Abuse. Persons reporting sexually abusive backgrounds tend to view their family relationships more negatively than those without such a background. For example, Harter, Alexander, and

Neimeyer (1988) found that female university students who reported intrafamilial sexual abuse by a paternal figure rated their families as significantly less cohesive and adaptable according to the Family Adaptability and Cohesion Evaluation Scale-II (Olson, Russell, & Sprenkle, 1983) than students not reporting sexual abuse.

In addition, the family environment of intrafamilial sexual abuse may differ from that where extrafamilial sexual abuse has occurred. Cole and Woolger (1989) recruited 55 mothers who were child sexual abuse survivors abused by fathers (n=21) or by men who were unrelated (n=19) through local media. Women who were abused by their fathers rated them as significantly less accepting, more negatively controlling, and as stricter disciplinarians than women who were sexually abused by unrelated men. Further, intrafamilial sexual abuse survivors perceived their mothers as less involved and more negatively controlling than survivors of extrafamilial sexual abuse.

However, Finkelhor, Hotaling, Lewis, and Smith

(1990), in their national American survey, concluded that growing up in an unhappy family appears to be the most powerful risk factor for both intrafamilial and extrafamilial sexual abuse. Both men and women who described their families as unhappy were more than twice as likely to report having been abused, either by a family member or by a person outside the family. There are at least two plausible explanations for participants reporting an unhappy family when sexual abuse occurred outside the family. First, participants may have had a negative recall bias in the recollection of family environment given a negative external event. Second, the dysfunctional family dynamics operating within a sexually abusive family may also be operating when the abuse occurs outside the family, for example, if the child does not disclose the abuse, is not believed, or the abuse is in some way condoned.

Similarities among sexually and physically abusive families have been noted. Steele (1986) noted that in both cases, caregivers disregard children's developmental stages and needs, with

interaction oriented towards the caregiver's whims, needs and satisfactions. In addition, the inconsistency of caregiver patterns of interaction, unrelated to the child's needs, can be more damaging than consistently "bad" caregiving.

Evans (1988) described physically and sexually abusive families as dysfunctional systems. The problematic dynamics of the dysfunctional system are found in boundary violations, which hinder the development of a stable identity. Boundary violations may be emotional, physical, or sexual, and may result in the engenderment of shame and a dissociative response on the part of the child.

There thus appears to be a growing theoretical literature which describes the numerous commonalities underlying family interaction patterns of households characterized by physical and/or sexual abuse. However, little empirical research has addressed the ways in which family structure and interaction are similar and different across abusive environments, and the psychological impact of a given family interaction pattern for men and women with an abusive

background.

Psychological Adjustment

Persons from physically or sexually abusive family backgrounds may experience difficulties with psychological adjustment as adults. However, recent research suggests that variables operating within the family may exacerbate or mediate the psychological impact of abuse.

Physical Abuse. Adults who have been physically abused as children may experience feelings of personal inadequacy and self-blame for the abusive incidents even years later. In a literature review of the effects of physical abuse on adolescents, Galambos and Dixon (1984) identified low self-esteem, high anxiety, low school achievement, aggressiveness, alcohol-related problems, and an external locus of control as possible consequences of a physically abusive family environment, with more negative outcomes for long-term abuse than short-term.

However, familial factors other than abuse itself renders the psychological effects of physical abuse less clear. For example, Briere and Runtz

(1988) found that psychological and physical maltreatment by mothers and fathers were significantly intercorrelated among university women, and that general parental abusiveness was associated with psychological maladjustment as measured by the Hopkins Symptom Checklist (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974), as well as with measures of dissociation and suicidal ideation. Houck and King (1989), in describing family characteristics and physical abuse, suggested that based on studies which have found that families at low risk for abusive parenting were balanced in cohesion and adaptability and families at high risk were extreme on these two dimensions (e. g., Olson, 1986), the impact of high family functioning following the abusive experiences may mediate long-term negative effects on maltreated children. Houck and King also noted that a supportive relationship with a nonabusing parent may mediate negative long-term psychological effects of physical abuse.

Sexual Abuse. Findings regarding psychological adjustment to sexual abuse are equivocal. Some

researchers have found differences in psychological adjustment to intrafamilial versus extrafamilial sexual abuse, while others have found no resulting adjustment difficulties. Briere (1989), in a discussion of the sexual abuse literature, noted that emotional consequences of sexual abuse include negative self-evaluation, guilt, depression, and difficulties in forming intimate relationships. Browne and Finkelhor (1986), in a review of the literature on sexually abused females, concluded that sexual abuse by a father figure seems to result in more trauma than any other abuse within or outside the family. However, Cavaiola and Schiff (1989), in a study of abused, chemically dependent adolescents enrolled in a residential treatment centre for chemical dependency, found that abuse, whether physical, extrafamilial sexual, or intrafamilial sexual, had an equally devastating and long-lasting impact on self-esteem.

German, Habenicht, and Fatcher (1990) studied the personality and self-concept of 40 adolescent female incest survivors, with incest defined as any

sexual activity between family members. The authors reported that as adolescents, the abused females showed an overall low self-concept, and little happiness and satisfaction with their lives. However, they reported feeling positively about physical appearance and school progress. The authors suggested that the psychological profile of these females, including a tendency to psychologically accommodate to the abuse and to isolate themselves socially, may reflect the beginning of a learned helplessness orientation and vulnerability to revictimization.

In a survey of 2016 male college students, Urquiza (1988) found that among the 17.3% who reported some type of sexual abuse, adult psychological consequences included adjustment problems, psychosexual difficulties, physical and somatic concerns related to depression and sleep problems, and lower self-concept. Krug (1989), in a case report of eight male psychotherapy clients who had been subjected to maternal sexual abuse in childhood, found that all had relationship

difficulties, seven experienced depression as adults, and five abused substances.

Recent studies have found that child sexual abuse does not necessarily result in adult traumatization. Frieze, Hymer, and Greenberg (1987), in a review of the literature on victimization, reported that long-term effects of sexual abuse by a family member for women have included difficulties relating to men, inadequate social skills, and difficulties in sexual functioning, while sexually abused men may experience sexual problems as adults. However, they noted that sometimes no long-term effects of sexual abuse are found (e. g., Conte, 1985). Fromuth and Burkhart (1989), in a study of the long-term psychological effects of mainly maternal sexual abuse on college males, found that sexually abused participants from the midwestern United States reported significantly more psychological distress on the SCL-90 (Derogatis, Lipman, & Covi, 1973) than a sample taken from the southeast. The authors speculated that the differences in adjustment between the two samples may

be due to regional variations in the view of sexual relations between a boy and a woman.

Finkelhor (1990) pointed to three possible explanation for findings of little psychological distress in sexual abuse survivors. First, he noted that in some studies, measurement may be inadequate, in that the relevant issues and symptoms are not tapped by current instruments. Second, children who report little psychological distress may be in denial, and would thus experience significant distress at a later date. Third, he noted that those with fewer negative psychological consequences likely experience less severe abuse, and are abused for a shorter period of time. In addition, these children more typically have a relatively well-functioning, supportive family environment.

Family environment seems to account for at least some differences in psychological adjustment to sexual abuse. Harter, Alexander, and Neimeyer (1988), in a study of female undergraduate students, found that participants who had been sexually abused by a paternal figure were more socially isolated and

more poorly socially adjusted than nonabused women. However, the authors reported that a family environment of low cohesiveness and adaptability was more predictive of later maladjustment than a history of child sexual abuse.

In her study on college women, Fromuth (1986) noted that when parental supportiveness was taken into account, there were few differences in psychological adjustment between sexually abused and nonabused college women. Fromuth suggested that perhaps it is the lack of parental supportiveness characterizing sexually abusive homes, rather than sexual abuse per se, that correlates with psychological maladjustment. Thus, sexual abuse in and of itself should be taken in the context of the family environment if one is to understand its psychological implications. These results suggest that there may be positive aspects of some abusive family environments which mediate the psychological effects of childhood sexual abuse.

Individuation

Successful self-differentiation has been viewed

as the hallmark of psychological adjustment (Bowen, 1978). Bowen (1978) contended that the process of individuation or differentiation of self is crucial to understanding family functioning and the development of individuals within the family. Individuation refers to the process of development from an emotionally dependent child to an independent adult who views herself or himself as an individual separate from the family of origin. Differentiation also involves separation of the thinking and feeling aspects of personality. Bowen conceptualized these two theoretical processes of individuation from family of origin and separation of thought and feeling along a continuum ranging from 0 to 100. People more successful at these two tasks would theoretically rate higher on the continuum, whereas less individuated people would fall on the lower end of the scale. According to his systems perspective, families have a general, average level of differentiation, with minor fluctuations from the average for individual family members.

First, people may be viewed along a dimension of

fusion versus differentiation between emotional and intellectual functioning. People low on this scale are dominated by emotions rather than by beliefs or opinions. They are "less flexible, less adaptable, and more emotionally dependent on those about them. They are easily stressed into dysfunction, and it is difficult for them to recover from dysfunction. They inherit a high percentage of all human problems" (p. 362). Bowen described the "stuck-together" emotional fusion of a family system which fosters a poorly differentiated self as an "undifferentiated ego mass".

On the other hand, more differentiated people are better able to separate emotional and intellectual functioning. People whose intellectual functioning can remain relatively autonomous in periods of stress are "more flexible, more adaptable, and more independent of the emotionality about them. They cope better with life stresses, their life courses are more orderly and successful, and they are remarkably free of human problems" (p. 362). When seriously stressed, they tend to rebound quickly.

Bowen noted that there is an infinite number of levels between the two extremes on the continuum from fusion to differentiation.

Second, Bowen pointed to the degree to which people have resolved or unresolved attachments to their families of origin. The degree of unresolved attachment is equivalent to the degree of undifferentiation, so that much unresolved attachment corresponds to poor differentiation. People may use some combination of internal mechanisms (e. g., emotional distance) and/or physical distance to cope with the undifferentiation and maintain the equilibrium existing in the family system. However, emotional "fusion" or "stuck-togetherness" of members within a dysfunctional family system remains.

Daniels (1990) outlined several family structural factors which may interfere with the development of a separate sense of self. She concluded that parental conflict, especially when accompanied by parental separation, compounds the task of individuation for the adolescent. In single-parent families, Daniels noted that a child

frequently takes on a more adult care-taking role and responsibilities, creating blurred generational boundaries and complicating the process of individuation. These phenomena of the child caretaker and unclear boundaries have also been noted in children from abusive family backgrounds (e. g., Liles & Childs, 1986).

Although there has been considerable theoretical work on family characteristics which foster individuation, little empirical research has been performed on familial factors which contribute to or hinder the development of a sense of self-separateness. In addition, the relation of individuation to other measures of psychological adjustment remains unclear. Given the importance of the individuation construct to current family systems approaches, its investigation would help clarify this area of family theory and research.

Summary

Early family experiences have been implicated in numerous aspects of adult psychological adjustment. A dysfunctional early family environment consisting

of one or more of child physical abuse, intrafamilial sexual abuse, and extrafamilial sexual abuse appears to have implications for later psychological functioning among nonclinical populations.

Individuals with these traumatic family backgrounds have often been found to be more depressed, anxious, and generally distressed in adulthood. However, a number of researchers have identified that not all people from adverse family backgrounds appear to be maladjusted. They have pointed to both individual and familial factors which may affect later adjustment. The present study will attempt to clarify the relation between family structural aspects of physically abusive and sexually abusive (intrafamilial and extrafamilial) family environments and young adult psychological adjustment.

Successful individuation from one's family of origin as described by Bowen (1978) has been theoretically viewed as the main developmental process of late adolescence and the cornerstone of adult psychological adjustment. However, the extent to which individuation and psychological adjustment

are related, and the implications of an adverse family background and family structure for the development of a sense of oneself as autonomous from one's family have received little empirical attention. The present study will investigate and attempt to elucidate the relation of individuation to psychological adjustment, family structure and environment.

Hypotheses

1. Respondents reporting childhood physical or sexual abuse will describe more maladaptive functioning of their family of origin than respondents not reporting such abuse, in that they will report higher conflict, and lower cohesion, expressiveness, personal growth, and control on the Family Environment Scale (Moos & Moos, 1981). This hypothesis is in line with the majority of the theoretical and empirical literature which links maladaptive family environment with each type of abuse. Similarities and differences among patterns of family characteristics and type of abuse will be investigated, as will the curvilinearity of the Olson

Circumplex Model (Olson, 1986).

2. Participants describing families of origin as maladaptive in functioning will report a lower level of individuation from family of origin and greater psychological distress than respondents describing more adaptive family functioning. This hypothesis reflects the presumed importance of family structure as an intervening variable in psychological adjustment to an abusive family background.

Individuation is also presumed to be related to family functioning and later psychological adjustment. Bowen (1979) proposed that the process of self-development is fostered by a family supportive of both autonomy and emotional closeness. Others (e. g., Olson, 1986) have contended that families who function more effectively promote psychological health for the individuals within the family.

3. Persons from abusive family environments who report little psychological distress will also report a more functional family structure and will score higher on the measure of individuation. This

hypothesis reflects two factors: (A) There is considerable recent literature which suggests that familial and individual factors contribute to resilience to the negative psychological impact of an abusive home (e. g., Luthar & Zigler, 1991; Werner, 1989). In fact, familial factors such as parental supportiveness have been implicated as more influential in psychological adjustment than the abuse itself (Fromuth, 1986; Houck & King, 1989). (B) The university student population, which having succeeded academically in entering university, may be expected to display other characteristics, both family and individual, which contribute to resilience.

METHOD

Participants

Participants were female and male students recruited from introductory psychology classes at the University of Manitoba, who received credit toward their course grade for their participation. Participants completed questionnaires confidentially in groups of about 150.

Materials

Family History Measures

Physical Abuse. History of child physical abuse was assessed utilizing a modified version (Runtz, 1990) of a scale created by Runtz (1987; Appendix A). The original version assessed types of abusive behaviours perpetrated by each parent and degree of resulting injury to the respondent. Runtz (1987) found a Cronbach's alpha of .78 for a sample of university women. In the modified version, a measure of frequency of abusive behaviours was added. Specifically, participants indicate how often (from 0 to 20 times) they experienced any of eight

potentially abusive behaviours perpetrated by their parents, step-parents, or guardians. They then respond "yes" or "no" to a list of possible injuries resulting from the abusive behaviours. Presence or absence of injury as well as a total injury score may be calculated. Physical abuse is thus defined on a continuum, in terms of frequency and severity of abusive behaviour. Runtz (1990) reported an internal consistency (Cronbach's alpha) of .85 for the physical abuse scale.

Childhood Sexual Abuse Scale. Childhood sexual abuse was assessed by a scale employed by Runtz (1990), based on Finkelhor's (1979) sexual victimization survey (Appendix B). Sexual abuse was defined in terms of relationship (intrafamilial and extrafamilial) and relative ages of abuser and abused. The age criterion for "abuse" employed was a perpetrator at least 5 years older than a child aged 14 or younger. Given the emphasis in this study on family environment and interaction, "intrafamilial" sexual abuse refers to sexual experiences between the respondent and a person who lived in the same

household at the time of the abuse, or a biological parent or older sibling not living in the same household. "Extrafamilial" refers to sexual experiences between the respondent and a person other than a parent or sibling, and who did not live in the same household at the time of the abuse.

Participants indicate how often they had 10 sexual experiences of varying severity which may have occurred in childhood. Duration and frequency of abuse, amount of coercion, and the participant's subjective impressions of the sexual experiences as positive or negative is then assessed. While there are no psychometric data on Finkelhor's original survey, Runtz (1990) reported a Cronbach's alpha of .94 for a university student sample utilizing her modified version.

Parental Alcohol Abuse. The Children of Alcoholics Screening Test (CAST; Jones, 1983) was included in the present study because of research which has linked alcohol abuse with both physical and sexual abuse. For example, alcohol may act as a disinhibitor in physical or sexual abuse (e. g.

Black, Bucky & Wilder-Padilla, 1986; Gordon, 1989; see Yeary, 1982 and Liles & Childs, 1986 for a discussion). However, the differential and combined effects of this interaction on the emotional and social lives of young adult children from these adverse family environments is less clear.

Three recent studies with female and male university students have found that 23-26% report alcohol-abusing parents (Barnard & Spoentgen, 1986; Knowles & Schroeder, 1990; Rearden & Markwell, 1989). Researchers have identified a number of factors which distinguish alcohol-abusing families from those that do not abuse alcohol. Members of alcohol-abusing families have rated their families as more unhappy, unreliable and strict, and less trusting, secure, and warm than non-abusing controls (Callan and Jackson, 1986), and as having either a chaotic or overly rigid structure (Coleman and Colgan, 1986; Preli, Protinsky, & Cross, 1990). Olson, Sprenkle, and Russell (1979) postulated that dynamics of this nature inhibit emotional bonding and individual autonomy within the family. Others have found that

college student children of alcoholic parents report lower self-esteem and morale, and higher levels of depression than children of non-alcoholics (Berkowitz & Perkins, 1989; Knowles & Schroeder, 1990; Parker & Hartford, 1988; Rearden & Markwell, 1989). However, Plescia-Pikus, Long-Suter and Wilson (1988) found that some adult children of alcoholics demonstrated generally high well-being and scored high on an achievement measure. Individual self-reliance (Scott, 1989) and generally supportive family environment (Clair & Genest, 1987) have been identified as potential mediators of psychological distress.

The CAST (Jones, 1983) is a 30-item self-report inventory which assesses people's feelings, attitudes, perceptions, and experiences related to their parents' drinking behaviour (Appendix C). A person's score is tabulated by adding the total number of "yes" responses to feelings and perceptions surrounding parental alcohol abuse. Jones (1983) reported a CAST mean score of 3.6 for children of non-alcoholic parents. Jones (1982) reported a

validity coefficient of .78 for the CAST with a group of children with alcoholic parents, and in a study with adults (Jones, 1981), a Spearman-Brown split-half reliability coefficient of .98. Similarly, Dinning and Berk (1989), in a study of adolescents, reported a Spearman-Brown split-half reliability coefficient of .96, and alpha coefficients of .95 for males, .97 for females, and .96 for the total sample.

Family Environment Scale. The Family Environment Scale (FES; Moos & Moos, 1986) is a 90-item self-report inventory which assesses the three family dimensions of Relationships, Personal Growth, and System Maintenance, utilizing 10 subscales (Appendix D). The Relationship dimension is measured by Cohesion, Expressiveness, and Conflict subscales, which assess the degree of commitment, help, and support present among family members; the extent to which family members are encouraged to openly act and express their feelings; and the amount of openly expressed anger, aggression, and conflict in the family. Personal Growth refers to the goal orientation of the family, as measured by the

Independence, Achievement Orientation, Intellectual-Cultural Orientation, Active-Recreational Orientation, and Moral-Religious Emphasis subscales. These subscales measure the extent to which family members are assertive, self-sufficient, and make their own decisions; the extent to which activities (such as school and work) are viewed as achievement-oriented or competitive; the amount of interest in political, social, intellectual, and cultural activities; and the degree of emphasis on ethical and religious issues and values. System Maintenance dimensions are assessed by the Organization and Control subscales. These subscales assess the degree of importance of clear organization and structure in planning family activities and responsibilities and the extent to which set rules and procedures are used in the management of family life.

The above family dimensions may be measured on three forms of the questionnaire: the Real Form (Form R), which measures people's perceptions of their nuclear family environments; the Ideal Form (Form I), which assesses respondents' conceptions of

ideal family environments; and the Expectations Form (Form E), which assesses expectations about future family settings. For the purposes of the present study, only Form R was administered.

The Family Environment Scale (Moos & Moos, 1986) was constructed based on conceptual and empirical procedures utilizing diverse family samples. Conceptual validation was based on information on and structured interviews with families, and on a conceptual formulation of the three general areas consisting of specific dimensions that might differentiate families. Following the preliminary conceptual stage, empirical criteria were employed to select the final set of items. The empirical criteria were that for an item to be included it must not be answered either true or false by more than 80% of the respondents; it must significantly discriminate among families, correlate positively with other items on its subscale, and correlate more highly with its subscale than with any other subscale (Moos, 1990).

Moos and Moos (1986) reported internal

consistencies (Cronbach's alpha) ranging from .61 (Independence) to .78 (Cohesion, Intellectual-Cultural Orientation, Moral-Religious Emphasis) for each of the ten subscales, and 2-month test-retest reliabilities ranging from .68 (Independence) to .86 (Cohesion). Face and content validity seem to be supported by the conceptual and empirical item selection process (Moos & Moos, 1986).

Family Adaptability and Cohesion Evaluation Scale III (FACES III). FACES III (Olson, Portner, & Lavee, 1985) is a 20-item self-report instrument, completed twice to assess perceived and ideal family cohesion (emotional bonding) and adaptability (ability to change). The discrepancy between perceived and ideal scores measures family satisfaction. For the purposes of the present study, only the perceived form of FACES III was administered (Appendix E). The underlying model of FACES III is curvilinear in nature, such that low and high scores indicate less adaptive family functioning than moderate scores. The dimensions of cohesion and adaptability have four levels: disengaged,

separated, connected, and enmeshed (cohesion); and rigid, structured, flexible, and chaotic (adaptability). Families who score in the balanced range of cohesion (separated or connected) and adaptability (structured or flexible) are viewed as communicating and functioning more effectively. Family members scoring at the extremes of cohesion (disengaged, enmeshed) and adaptability (rigid, chaotic) are seen as less effectively communicating and functioning.

Olson (1986) reported that cohesion and adaptability are uncorrelated ($r = .03$), and that there is no correlation between adaptability and social desirability ($r = .00$). The correlation between cohesion and social desirability is moderately low ($r = .39$). FACES III has an internal consistency of .68 overall, .77 for cohesion, and .62 for adaptability (Olson, 1986). In a study of father-absent male adolescents and their mothers, Rodick, Henggeler, and Hanson (1986) found test-retest reliabilities of .90 for cohesion and .81 for adaptability. Edman, Cole, and Howard (1990), utilizing multiple measures of

adaptability and cohesion given to family members and non-familial significant others, found reasonably high convergent and discriminant validity of FACES-III.

Psychological Adjustment Measures

Differentiation of Self Scale. The Differentiation of Self Scale (DOSS; Kear, 1978) operationalizes Bowen's (1978) theoretical continuum of differentiation of self (Appendix F). The DOSS is a 41-item instrument scored on a 5-point Likert scale. Responses range from "very much unlike me" to "very much like me". Examples of items are: "My relationship with my parents has been very good"; "During a crisis I can 'keep my head' and figure out a logical solution to a problem". A 72-item questionnaire based on statements made by Bowen on differentiation of self was administered to 50 participants. The final 41 items which were selected met the dual criteria of a reliability (communality) of .30 or greater and a validity (factor loading) of .40 or greater. Kear found the DOSS to be positively related to marital adjustment and satisfaction.

Parnell (1983) found significant differences between battering couples in marriage counselling, nonbattering couples in marriage counselling, and control couples, with the levels of differentiation of self less for each group respectively. Feigal (1985) reported the DOSS to be significantly positively correlated with the Locke-Wallace Marital Adjustment Test, and that married couples in counselling scored significantly lower than couples not in marriage counselling. Greene and Kelley (1985) discovered that couples in a cognitive relationship enhancement program made significantly greater improvements on the DOSS than couples in a standard relationship enhancement program.

Symptom Checklist-90 R (SCL-90R). The SCL-90R is a 90-item self-report inventory useful in both clinical and research settings (Derogatis, Lipman, & Covi, 1973; Appendix G). Nine dimensions of psychological maladjustment are assessed: somatization, obsessive compulsiveness, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism.

Participants respond to items representing symptoms of distress (e. g. "Heart pounding or racing", "Spells of terror or panic") on a five-point scale ranging from "not at all" to "extremely" based on the past seven days. The SCL-90R provides scores for each of the nine symptom areas, as well as a Global Severity Index representing a general measure of psychological distress.

Psychometric data on the SCL-90R suggests that it has high construct validity (Derogatis & Cleary, 1973), and high internal consistency and test-retest reliability, .953 and .939 respectively (Edwards et al., 1978). It has been employed in studies of physically abused (Briere & Runtz, 1988) and sexually abused women (Silver, Boon, & Stones, 1983; Runtz, 1987).

Questionnaires were completed in the following order: The Family Environment Scale (FES), the Family Adaptability and Cohesion Evaluation Scale-III (FACES-III), Symptom Checklist-90 Revised (SCL-90R), and Differentiation of Self Scale (DOSS) were presented first, in three different orders across

participants. The three abuse measures, Child Physical Abuse Scale, Child Sexual Abuse Scale, and the Children of Alcoholics Screening Test, were presented last due to the sensitive nature of the items. Participants likely feel less threatened in responding to questions related to childhood abuse if these questions are presented following comparatively less personal items. The three abuse questionnaires were also presented in three different orders across participants.

Results

This section will begin with a description of demographic information obtained in the sample. Following sections describe responses to measures of physical abuse, sexual abuse, and parental alcohol abuse. Factor analyses of family structure and psychological adjustment measures are presented next. Finally, results of multiple regressions and canonical correlations are examined. Data were analyzed utilizing the Statistical Package for the Social Sciences (SPSS, Inc., 1983).

Sample Characteristics

Six hundred two university students participated in the study, 64 during the summer session and 538 during the regular fall session. Three hundred thirty-five students (55.6%) were female and 266 (44.2%) were male. Participants ranged in age from 17 to 49. Most (72.8%) were in their first year of university. The vast majority of participants was single (93.4%) and lived with their parents (66%).

Physical Abuse

Frequencies of physically disciplinary/abusive

experiences reported by the present sample are presented in Table 1. Missing data for the reported frequencies of these behaviour was approximately 9%. As chi-square tests indicated no significant differences between women and men in reporting of any physically abusive experiences, data for both sexes were combined for analyses.

The categories indicating the perpetrator of the physical discipline were not mutually exclusive. Of those reporting a physically disciplinary behaviour, 52% indicated that it had been perpetrated by their mother and 46% by their father. Less than 5% named a stepfather or stepmother, and 10% named another adult. Missing data ranged from 12% to 14.6% for these items.

While a high frequency of physically disciplinary or abusive experiences was reported by the sample, only 10% of the total sample considered themselves to be physically abused. Chi-square analysis indicated that there was no significant difference between sexes in feeling physically abused. Definition of oneself as physically abused

was significantly ($p < .05$) related to reports of being beaten or kicked ($r = .16$), pushed, thrown, or knocked down ($r = .18$), hit with an object ($r = .11$), having hair pulled ($r = .11$), being burned or scalded ($r = .14$), scratched with fingernails ($r = .13$), and having a leg or arm twisted or pulled ($r = .15$). Participants self-defined as physically abused tended to report receiving bruises or scratches ($r = .09$), and an unspecified "other" injury ($r = .09$). People who viewed themselves as physically abused also reported abuse by a sibling ($r = .27$), an other child or adolescent ($r = .26$), and an other adult ($r = .49$).

The definition of physical abuse employed by the present study was the sum of endorsed items on the physical abuse scale. In a check for internal consistency, Cronbach's alpha was found to be .87 for this scale. An examination of the distribution of scores found that the data were very positively skewed, indicating that the majority of participants reported few or none of the physically abusive experiences listed by the survey. An inverse transformation of these data was used in subsequent

analyses, as recommended by Tabachnik and Fidell (1989) to improve normality of L-shaped distributions.

Sexual Abuse

One hundred fourteen participants who indicated that they had had at least one of the ten childhood sexual experiences either described incidents that did not meet the age criterion employed by the study or did not complete the additional descriptive questions in the questionnaire booklet. Sixty-four participants (10.63%) reported childhood sexual experiences which met the age criterion for the study, that they were age 14 or younger and that the other person involved was five or more years older than they. Fifty of these participants (78%) were female, and 14 (22%) male. Missing data ranged from 5% to 5.5% for all the sexual experiences with the exception of intercourse, for which 8.5% of the data were missing. The frequencies of sexual experiences for both women and men, presented in Table 2, were calculated excluding the missing data. On each item of the childhood

sexual abuse scale, affirmative responses ranged from 5 to approximately 20%. An invitation or request to do something sexual (20%), sexual kissing and hugging (21%), and another person exposing sex organs (20%) were most frequently experienced, while attempted intercourse (9%) and intercourse (5%) were least frequently reported.

The average age at which the sexual experiences occurred was 9.16 years. For women, the average age was 9.22, with a range of ages 3 to 14. For men, the average age was 8.93, with an age range of 5 to 14. The average age of perpetrator was 24.92 years of age, with a range of ages 11 to 70.

Sixty five percent of the perpetrators were listed as male, and 35% female. Ten of the 64 (15.63%) instances of sexual abuse were reported to be by immediate family members, i. e., parents or siblings. The remaining 84.37% instances of sexual abuse occurred outside the immediate family. Twenty-five percent (16) were perpetrated by extended family members, i. e., either a grandparent, cousin, or uncle/aunt. The majority of the sexual abuse

instances, 60% (38), were extrafamilial, i. e., perpetrated by an acquaintance, babysitter, friend, boyfriend/girlfriend, friend of parents, teacher, neighbour, or stranger.

On the item requesting duration of the sexual behaviour, 14.5% of the cases were missing. Of the nonmissing data, 57.9% indicated that the sexual behaviours continued over a few days, 15.7% over a few weeks, 14.3% over a few months, 10% over a few years, and 2.1% over many years. Eleven and one-half percent indicated that they had been threatened to engage in the behaviour, and 18.7% were forced. Seven percent indicated that they had been physically hurt and 45% indicated that they had been convinced. When asked to rate the experience on a 5-point scale ranging from positive to negative, 35.8% indicated that the experience was very negative, 13.5% slightly negative, 24.3% neutral, 15.5% slightly positive, and 10.8% very positive. Chi-square analysis indicated that women rated the sexual experiences more negatively than did men ($p < .001$). Thirteen percent of cases were missing. When asked to rate their

confidence in the memory of the event(s), 36.7% were very confident, 17.7% slightly confident, 20.4% neutral, 10.2% slightly unconfident, and 15% very unconfident.

Eighteen percent of those reporting sexual experiences considered themselves to be sexually abused, constituting 5.2% of the total sample, 4.4% females and .06% males. Of those who considered themselves sexually abused, 85% were female and 15% male. Thirteen percent of cases were missing in the above data.

Chi-square analysis found that consideration of oneself as sexually abused was significantly related to gender, in that women had a greater tendency than men to see themselves as sexually abused ($p < .01$). Simple correlations revealed that self-definition as sexually abused was also significantly related ($p < .001$) to all the sexual experiences listed in the questionnaire ($r_s = .17 - .63$). Self-definition as sexually abused was not related to the sex of the offender, but was related to being threatened ($r = .95$), forced ($r = .94$), hurt ($r = .95$), convinced

($r=.90$), and a rating of the experience as negative ($r=.84$). According to chi-square tests, women tended to report significantly higher frequencies of being fondled by another person and of touching another person's sex organs ($p<.05$). No other significant sex differences were found in reported frequencies of sexual experiences. Chi-square analysis found that of the total sample, women had a significantly ($p<.05$) greater tendency than men to report being forced (7% vs. 2.5%) into the sexual experience and to rate it more negatively (21% vs. 5%).

Sexual abuse was defined as the sum of endorsed items on the childhood sexual abuse scale. The Cronbach's alpha of the scale was found to be .92. When the distribution of scores on the sexual abuse scale was examined, it was found to be very positively skewed, indicating that the majority of participants reported few or none of the sexual incidences presented in the questionnaire. For further analyses, the sexual abuse variable was inversely transformed, as recommended by Tabachnik and Fidell (1989) to normalize L-shaped

distributions.

Parental Alcohol Abuse

The mean score on the CAST (Jones, 1983) was 3.9, with a standard error of .29. Cronbach's alpha was found to be .96. Data were missing for 9.3% of the sample. Of the nonmissing data, 52.2% of participants responded "no" to all of the items on the CAST, indicating no reported concerns about parental drinking behaviour. As a chi-square test indicated no significant differences between sexes in reports of parental drinking behaviour, data for women and men were combined for further analysis.

In the present study, alcohol abuse was defined as the sum of endorsed items on the CAST. The scores were very positively skewed, indicating that the majority of respondents answered "no" to the items on the CAST. Again as recommended by Tabachnik and Fidell (1989), this variable was inversely transformed for all further analyses including that variable.

Family Structure

In order to reduce the complexity of the two

family structure measures, FACES-III and the Family Environment Scale, both scales were submitted to principal factors analysis with varimax rotation. Visual inspection of the plot of eigenvalues indicated five factors above the scree. These five factors accounted for 22.2% of the total variance. Items with factor loadings greater than or equal to .3 were included in the factors (see Appendices D and E). Correlations between factors were reduced by eliminating redundancy of items, i. e., when an item loaded on two factors, it was removed from the factor on which it displayed the lower loading.

The first factor, labelled Cohesion and Support, consisted of 25 items and accounted for 10.7% of the variance. Fourteen items were from FACES-III and 11 from FES. Items represented togetherness and understanding in the family (e. g., "There was a feeling of togetherness in our family", "Family members felt very close to each other"). Cronbach's alpha was .88 for an additive scale of these items to measure this factor. The second factor, labelled Harmony, included 16 items, all from the FES, and

accounted for 4.5% of the total variance. The items pertained to family egalitarianism and lack of conflict (e. g. "Family members hardly ever lost their tempers", "Everyone had an equal say in family decisions"). Cronbach's alpha for an additive scale of these items was found to be .75. The third factor, labelled Lack of Structure, was comprised of 17 items, accounting for 2.9% of the variance. Cronbach's alpha for the sum of the items which defined this factor was .78. Items dealt with lack of organization and rules in the family (e. g., "There were very few rules to follow in our family", "We came and went as we wanted to in our family"). Fifteen items comprised the fourth factor, labelled Social/Cultural Activities, and accounted for 2.1% of the total variance in the scale. The items related to cultural/recreational interests and involvement in social activities (e. g., "We often went to movies, sports events, camping, etc.", "Friends often came over for dinner or to visit"). Cronbach's alpha for the sum of the items which comprised this factor was .76. Due to the skewness of Social/Cultural

Activities scores, a square root transformation was performed to increase the normality of the distribution (Tabachnik & Fidell, 1989). The fifth factor, labelled Lack of Religiosity, consisted of six items which accounted for 1.9% of the variance. Items referred to lack of religious orientation in the family (e. g., "We didn't say prayers in our family", disagreement with "The Bible was a very important book in our home"). Cronbach's alpha was .74. Based on the factor extraction, items were grouped into five variables representing the five factors.

Psychological Adjustment

Participants' scores on the SCL-90R were calculated as the mean of their total scale scores. This method of scoring is essentially equivalent to the Global Symptom Index recommended by Derogatis, Lipman, and Cleary (1973). Means and standard deviations for each subscale are presented in Table 3. Principal factors analysis with varimax rotation extracted one general factor of psychological distress that was above the scree in the plot of

eigenvalues. Cronbach's alpha for the SCL-90R was .97.

The items of the SCL-90R were examined for skewness and outliers. SCL-90R scores were positively skewed, reflecting the general tendency for participants to indicate absence of psychological distress. To correct for skewness (Tabachnik & Fidell, 1989), the SCL-90R was submitted to a logarithmic transformation for inclusion in multiple regressions and canonical correlations.

Individuation

Principal factors analysis with varimax rotation extracted three factors from DOSS that were above the scree in the plot of eigenvalues. Items with correlations of .3 and above were included in the factors (see Appendix F). Redundancy between items was eliminated by including items loading on two factors only on the factor on which it displayed the higher loading. The three factors together account for 24.6% of the variance. The first factor, labelled Emotionality/Dependence, was composed of 15 items and accounted for 13.2% of the variance. It

included items involving emotional volatility and dependence on others for security and identity (e. g., "I get very upset over rejection or lack of love", "When I make a decision I often worry about the disapproval of others"). Cronbach's alpha for an additive scale of these scores which defined the factor was .81. The 13 items which comprised the second factor, labelled Independence/Identity, accounted for 6.6% of the variance and involved autonomy and a clear sense of identity (e. g., "I have a well defined set of values and beliefs", "I have control over my life"). Cronbach's alpha for the sum of the scores of items comprising this factor was .75. Due to the skewness of Independence/Identity scores, a square root transformation was performed to improve the normality of the distribution (Tabachnik & Fidell, 1989). There were seven items on the third factor, labelled Unhappy Family, which accounted for 4.7% of the total variance and pertained to an unhappy family life and general life problems (e. g., "When I was growing up there seemed to be a lot of conflict and tension in

my family", "My teenage years were filled with emotional difficulties"). Cronbach's alpha for the sum of these items which defined the factor was .78.

Relation of Abuse and Psychological Adjustment

Multiple regression of the three abuse variables on psychological adjustment was performed to examine to what extent physical, sexual, and alcohol abuse were predictive of psychological maladjustment. The regression of the three abuse variables on the SCL-90R was significant ($F(3,468) = 12.37, p < .001$). Each abuse variable significantly predicted greater psychological maladjustment (see Table 4).

Relation of Family Structure and Psychological Adjustment

Multiple regression of the five family factors on the SCL-90R was significant ($F(5,468) = 10.24, p < .001$) and revealed that factors 1, 2, and 5 were predictive of scores on the SCL-90R (see Table 4).

Relation of Abuse, Family Structure, and Psychological Adjustment

When the five family factors were entered into the regression equation with the three abuse

variables, the result was significant ($F(8,463) = 8.56, p < .001$). Family factors 2 and 5 were predictive of better psychological adjustment, together with the absence of alcohol abuse and sexual abuse (see Table 4). Variance accounted for increased to 13% with the combination of abuse variables and family structure factors.

Relation of Abuse and Family Structure

Canonical correlation was performed with the five family factors and physical, sexual, and alcohol abuse. Structural components above .30 were considered meaningful. Two roots were obtained (see Table 5). In the first canonical relation, a canonical variate substantially defined by a lack of harmony on the family structure side of the equation was related to a canonical variate mainly defined by physical abuse on the other side of the equation. In the second root, a canonical variate primarily represented by lack of structure and lack of religiosity in family structure was related to alcohol abuse on the other side of the equation.

Relation of Individuation and Psychological
Adjustment

Multiple regression of the DOSS individuation factors with adult psychological adjustment was significant, $F(3,481) = 87.50$, $p < .001$. Analysis revealed that high scores on Factors 1 and 3 and low scores on Factor 2 were all associated with difficulties in psychological adjustment (see Table 6). Thus, people who reported greater emotionality and dependence on others, a generally unhappy family life and less of a sense of independence and self-identity tended to report more psychological maladjustment.

Relation of Family Structure and Individuation

The relation of the three individuation factors with the five family structure factors was examined with canonical correlation. Three roots were obtained, presented in Table 7. For the first root, a canonical variate defined by cohesion/support, harmony, and social/cultural activities on the family structure side of the equation was significantly related to lack of independence/identity and a

generally unhappy family on the individuation side of the equation. In the second relation, a canonical variate comprised of lack of cohesion/support, greater harmony, and lack of structure on the family structure side of the equation was related to emotionality/dependence on others on the DOSS side of the equation. The third root dealt with the canonical relation of social/cultural activities on the family structure side of the equation with lower emotionality/dependence on others and greater independence/identity on the DOSS side of the equation. It should be noted that the roots 2 and 3 accounted for considerably less variance than did root 1.

Relation of Family Structure, Individuation, and Psychological Adjustment

Multiple regression explored the relation of the five family structure factors and the three individuation factors with psychological adjustment. When the three DOSS factors were regressed with the five family factors on the SCL-90R, results were significant ($F(8,465) = 35.88, p < .001$). DOSS

factors 1, 2, and 3, and family factor 5 were associated with psychological maladjustment (see Table 8).

Relation of Abuse, Family Structure, Individuation, and Psychological Adjustment

Hierarchical regression was performed with all variables entered in the following order: the three abuse variables, the five family structure variables, and the three DOSS variables. R was significantly different from 0, $F(11,460) = 26.99$, $p < .001$. Table 9 presents Beta weights, T-values, significance levels, R^2 , and adjusted R^2 after the final step. After the first step, with the three abuse variables in the equation, R^2 was .07, $F(3,468)=12.33$, $p < .001$ (adjusted $R = .07$). After the second step, when the five family structure variables were entered into the equation, R^2 increased only slightly to .13, $F(8,463)=8.53$, $p < .001$ (adjusted $R^2 = .11$). Thus, the family structure variable added some predictive power to the DOSS variables. When the three DOSS factors were included in the third step, R^2 increased substantially to .39, $F(11,460) = 26.99$, $p < .001$.

(adjusted $R^2 = .38$). Addition of DOSS factors to abuse and family structure variables appreciably added to R^2 . After the final step, all three DOSS factors significantly predicted psychological adjustment, together with family factor 5 and sexual abuse. Specifically, emotionality/dependence on others, poor sense of self-identity, a generally unhappy family life, religious orientation in family of origin, and sexually abusive experiences all significantly predicted with poor psychological adjustment.

Separate multiple regressions of all variables on the SCL-90R were performed for females and males. Results are presented in Table 10. For females, R was significantly different from 0, $F(11,258)=14.53$, $p < .001$. Predictors of psychological difficulty in women were described religious orientation in childhood, childhood sexual abuse, and emotionality/dependence on others. R for males was significantly different from 0, $F(11,183)=11.72$. Lack of religious orientation in childhood, greater emotionality/dependence on others, a lack of

independence/sense of identity, and an unhappy family background predicted psychological distress for males.

Discussion

The present study examined the relation of childhood physical and sexual abuse, parental alcohol abuse, family structure, and differentiation of self with young adult psychological adjustment. Previous research has equivocally found that childhood experiences consisting of alcohol, physical, and/or sexual abuse have been correlated with later psychological maladjustment. These findings have led researchers to investigate other factors outside of abusive experiences which predict later psychological difficulty. It has been suggested that dynamics in the family outside of the abuse itself may be more important correlates of later psychological difficulties.

The results of the present study emphasized the importance of family and individuation variables on young adult psychological adjustment. When abuse variables alone were included in analysis, they were significant predictors of psychological difficulties in the sample, accounting for 7% of the total variance. However, when family structure and

individuation factors were included, it became clear that abusive experiences could not alone account for the psychological maladjustment reported by the sample. When family variables were entered into the regression equation with the abuse variables, the variance accounted for increased to 13%. It was apparent that other factors operating within the family, notably family disharmony and a religious orientation during childhood, impacted negatively on psychological adjustment. In fact, when family factors were included in analysis with abuse factors, physical abuse was no longer a significant predictor of psychological distress, although sexual abuse and parental alcohol abuse remained significant.

In hierarchical regression, individuation factors were added into the equation. After the final step, 39% of the variance in the equation was accounted for by the individuation, family, and abuse variables. When all variables were considered, all three individuation factors were predictive of psychological adjustment, together with lack of religious orientation in childhood and childhood

sexual abuse. Individuation, which theoretically stems from family environment (Bowen, 1978), was thus a powerful predictor of psychological adjustment.

Physical Abuse

Experiences on the high end of the physical maltreatment continuum were fairly common for the university student sample. Over 15% of students reported being hit or slapped, and nearly 9% hit with an object on the two highest frequencies, 11 to 20 times and greater than 20 times. Also on the two highest frequency item, 4-5% reported pulled hair, being beaten or kicked, pushed or knocked down, and having their leg or arm twisted or pulled by caretakers. These frequencies are consonant with the majority of the literature on physical abuse (e. g., Berger, Knutson, Mehm, & Perkins, 1988; Runtz, 1987).

Sexual Abuse

Childhood sexual experiences were not uncommon among the young adult sample, with the vast majority of sexual abuse reported being extrafamilial. Measures of adolescent sexual abuse would have provided valuable additional description of sexual

abuse in the sample, but were not included in the present study in order to maintain consistency in age of experiences in the abuse measures. Comparisons of childhood sexual experiences with current literature are difficult due to the different definitions employed by other studies including university students and the continuous definition of childhood sexual abuse employed in the present study. The frequencies of reported sexual experiences for men and women ranged from 5 to 20%, reasonably consistent with recent literature. For example, Runtz (1987) found that in her University of Manitoba sample, 3 (intercourse) to 20% (being fondled) of women had experienced the same sexual activities as those listed in the present study. If only female participants are included in the present data, frequencies of sexual experiences range from 5% (intercourse) to 22% (sexual kissing and hugging). For men, frequencies ranged from 6% (intercourse) to 21% (other showing sex organs). These frequencies are reasonably comparable to findings of other studies, which reported that 14-16% of males in a

nonclinical sample indicated behaviours that met the studies' criteria for sexual abuse (Fromuth & Burkhart, 1989; Finkelhor, Hotaling, Lewis, & Smith, 1990).

Parental Alcohol Abuse

Childhood experiences with parental alcohol abuse were defined continuously, and each item was endorsed by at least some participants. Utilizing Jones' (1983) recommended cut-off score of 4 or more on the CAST as indicative of children of alcoholics, 25.4% of the present sample would be classified as children of alcoholic parents. This figure is comparable with results obtained by other researchers, who have identified that 23-26% of university students may be classified as children of alcoholics (Barnard & Spoentgen, 1986; Knowles & Schroeder, 1990; Rearden & Markwell, 1989).

Family Structure

Principle factors analysis extracted five factors from the combination of FACES-III and FES. The factors represented family cohesion and supportiveness, family harmony and egalitarianism,

lack of structure and rules, cultural/recreational interests and social activities, and lack of religious orientation. Theoretically, the FES is comprised of 10 subscales on three dimensions. All of the three dimensions of the FES, Relationship, Personal Growth, and System Maintenance, are represented by the five factors extracted in the present study. The FES defines the Relationship dimension on three subscales: cohesion (degree of commitment, help, and support in the family), expressiveness (extent of open expression of feelings), and conflict (amount of expressed anger and conflict). Factor 1 extracted by the present study most closely corresponds to the cohesion subscale of the FES, and Factor 2 the conflict subscale, which in the present study represented lack of conflict.

The Personal Growth dimension is defined by the FES on five subscales: independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, and moral-religious emphasis. Factor 4 extracted by the present study

most closely corresponds to the intellectual-cultural and active-recreational orientations of the FES. The moral-religious emphasis subscale corresponds to Factor 5, lack of religious orientation. The organization and control subscales on the System Maintenance dimension are represented on Factor 3, lack of structure and rules.

Moos and Moos (1986) pointed out that the numerous factor analyses of the FES have extracted different solutions, ranging from two-factor to eight-factor solutions. The five factors extracted by the present study generally correspond to the three theoretical dimensions proposed by the FES authors, although the ten subscales were not fully represented. Moos and Moos noted that different factor-analytic solutions are to be expected because each depends on conceptual considerations, sample characteristics, statistical procedures, and on the criteria employed.

One final aspect of the family structure factor analysis is noteworthy. It is interesting that 14 of 20 items on FACES-III loaded on Factor 1, cohesion

and supportiveness. According to Olson, Portner, and Lavee (1985), FACES-III has a two-factor structure consisting of cohesion and adaptability. However, none of the adaptability items on FACES-III loaded on Factor 3, lack of structure and rules, which would have been expected from the theoretical definition of adaptability. The loading of FACES-III almost entirely on the cohesion factor might be explained by sampling considerations. The young adult university sample is likely not representative of the broader samples employed in the development of FACES-III. A two-dimensional view of perceived family functioning was insufficient to capture the complexity of family interaction reported by this sample.

Abuse and Family Structure

The present study hypothesized that persons reporting home environments characterized by physical, sexual, and parental alcohol abuse would describe more maladaptive functioning of their family of origin than respondents not reporting such abuse. This hypothesis was supported by results of analyses with physical abuse and parental alcohol abuse, but

not with childhood sexual abuse. These connections of alcohol and physical abuse with family structure are supported by previous research. Physical abuse has been associated with more family conflict and less cohesion, expressiveness, intellectual and recreational activities, and religious emphasis than matched nonabusive controls (Chan, 1985; Davis & Graybill, 1983; Perry, Wells, & Doran, 1983) and alcohol abuse with less cohesion, organization, cultural orientation, and more conflict (Clair & Genest, 1987). Cermak and Rosenfeld (1987) pointed to the similarities between alcohol-abusing and physically abusive families, in that they are arbitrary and chaotic in the establishment and administration of rules. As the reported incidences of childhood sexual abuse were low relative to physical abuse and parental alcohol abuse, and the majority of sexual abuse reported by the sample was extrafamilial, it is not surprising that sexual abuse was relatively independent of the five family factors.

Individuation

A further aim of the present study was to examine Bowen's (1978) conceptualization of individuation, or differentiation of self. Results of the study provided considerable support for Bowen's theoretical construct. The Differentiation of Self Scale was theoretically derived by Kear (1978) to correspond to Bowen's (1978) theory of individuation. Kear had hypothesized that his scale would comprise three aspects of Bowen's theory: separation of intellect and emotion, emotional maturity, and emotional autonomy. However, principal components analysis of DOSS by Kear resulted in 6 factors: emotional autonomy, emotionality-bodily conversion, familial relationships, emotional maturity, concern about self-perception, and avoidance of emotional intimacy. In the present study, principal factors analysis extracted three factors from DOSS: emotionality and dependence on others, independence and autonomy, and an unhappy family life.

The factor analytic solution obtained by the

present study is quite different from that arrived at by Kear (1978). Differences from Kear's factor analysis may be attributed to sample differences, to the time difference between the two studies, and to different factor extraction methods. In fact, the three factors obtained by the present study more closely parallel Bowen's (1978) theoretical assumptions. Two of the three factors extracted from the DOSS correspond closely to Bowen's (1978) conception of emotional fusion versus differentiation of thinking and feeling, the first representing emotionality and dependence on others and the second emotional independence and a strong sense of identity.

DOSS factor 3 represented a generally unhappy family life. Only item 4 corresponded to the familial relationships factor extracted by Kear (1978). While this factor did not correspond to Kear's findings, it again more directly related to Bowen's (1978) theory, identifying the aspects of one's current relationships with family members and feelings about past family relationships which Bowen

saw as crucial to the individuation process.

Individuation and Family Structure

The present study examined Bowen's (1978) concept of individuation from family of origin in relation to measures of family structure. The relation of the three individuation factors with the five family structure factors was examined with canonical correlation, which identified three roots.

The first canonical relation indicated that perceptions of a happy family were related to the elements of cohesion, harmony, and engagement in activities outside the home. The young adults reporting this type of family described themselves as emotionally independent and as having a strong sense of identity.

In the second root, description of oneself as emotional and dependent on others for self-esteem was related to description of the family as cohesive/supportive, but characterized by discord and a relatively high degree of structure and rules.

In the third canonical root, participants who reported that their families engaged in

social/cultural activities outside the home described themselves as having a greater sense of independence and self-identity with a corresponding reduction in emotionality and reliance on others for self-esteem. It should be noted that roots 2 and 3 account for considerably less variance in the equation than does root 1.

According to Bowen, persons relatively unsuccessful at the task of individuation are more likely to have family of origin relationships characterized by emotional enmeshment or distance. Results provided considerable support for Bowen's proposition, expressed in the second hypothesis of the present study, that persons describing more dysfunctional families would report less differentiation of self than those from more adaptive families.

Predictors of Psychological Adjustment

The extraction of one general psychological distress factor from the SCL-90R is in keeping with previous factor analyses (e. g., Runtz, 1987, 1991). Individual multiple regression analyses of abuse,

family factors, and individuation factors elucidated the most important aspects of each as predictors of psychological difficulty. When only the three abuse variables were considered, all forms of abuse, alcohol, physical, and sexual, were significantly associated with later psychological distress, accounting for 7% of the total variance. When only family structure factors were included, lack of cohesion and support, family disharmony, and a religious orientation in the family of origin were predictive of psychological difficulty and accounted for 10% of the variance. This finding provides support for the second hypothesis of the study, which stated that in addition to more difficulty with individuation (discussed above), participants describing families of origin as maladaptive in functioning would report greater psychological distress than respondents describing more adaptive family functioning.

The curvilinearity hypothesis of FACES-III (Olson, Portner, & Lavee, 1985) was not supported by the present investigation, as indicated by

examination of the residual plots. Fourteen of 20 items loaded on Factor 1, cohesion and supportiveness, extracted by the combination of FACES-III with the FES (Moos & Moos, 1986). Both cohesion and adaptability items were included. The remaining six items did not load on any factor. One would have expected adaptability items to load on Factor 3, lack of structure. As noted previously, factor solutions depend upon conceptual considerations, aspects of the sample, statistical procedures, and criteria employed (Moos & Moos, 1986). The univariate factor solution may have been a result of the university student sample, which may not be considered representative of the broader sample employed in the development of FACES-III.

When abuse variables were combined with family structure factors in multiple regression, alcohol abuse and sexual abuse were still associated with later maladjustment, together with lack of family harmony and a strong family religious orientation. Physical abuse was no longer a significantly predictive variable, subsumed under the added family

structure variables.

This result pertains to the third hypothesis of the study, which stated that persons from abusive family environments who reported little psychological distress would also report a more functional family structure and would score higher on the measure of individuation. The purpose of this hypothesis was to investigate the role of family structure as a mediating variable between childhood physical, sexual, and parental alcohol abuse, and psychological adjustment/individuation. The significant relation of family structure and individuation, discussed above, provides some support for this hypothesis. In terms of psychological adjustment, however, support for this hypothesis was mixed. Results indicated that family structure subsumed variance previously accounted for by physical abuse, but not by sexual abuse nor by parental alcohol abuse. Even when family factors were taken into account, sexual abuse and parental alcohol abuse remained significant predictors of psychological maladjustment. Given that most of the sexual abuse reported by

participants was extrafamilial, it is not surprising that aspects of the family structure did not compensate for the psychological effects of sexual abuse. However, parental alcohol abuse continued to significantly predict psychological maladjustment, even when family structure factors were taken into account.

There are at least two possible explanations for this finding. First, it may be that parental alcohol abuse in and of itself is more powerful than a potentially compensatory aspect of family structure in influencing later psychological distress. Along similar lines, family structure may be a more important mediating factor in physical abuse than parental alcohol abuse. For example, perhaps a close relationship with a non-abusing parent in a physically abusive family is more psychologically comforting than a close relationship with a non-alcoholic parent in an alcohol-abusing family.

Second, the measures included in the present study may not have been sensitive enough to identify aspects of family structure especially relevant to

alcohol-abusing families. Although both measures of family structure have been successfully employed with alcoholic families (e. g., Moos & Moos, 1986; Preli, Protinsky, & Cross, 1990), the present study found that while both canonical correlations were significant, family structure factors demonstrated a considerably lower canonical correlation with alcohol abuse (.38) than with physical abuse (.95). Thus, the aspects of family structure examined in the present study seem more pertinent to physically abusive families than to alcohol-abusing families. It may be concluded that aspects of the family of origin structure must be taken into account if the psychological effects of abuse are to be understood. For example, physical abuse may be an indicator of more general family dysfunction.

The strong correlation of greater religiosity in the family with greater psychological distress over and above other family factors was somewhat surprising. Previous research provides some corroboration for this finding. For example, fundamentalist religious beliefs have been found to

correspond to greater feelings of anger and aggression towards others (Altemeyer, 1988). Gartner, Larson, and Allen (1991), in a review of the literature, concluded that a strong religious orientation has been connected to disorders of overcontrol. However, they noted that most studies linking religion with psychopathology are attitudinal, while those focusing on religious behaviour have found that religious orientation is positively associated with psychological well-being. Fitz (1990), in an examination of religious and familial factors in the etiology of obsessive-compulsive disorder, found that there was some evidence that rigid and demanding parents in the context of a ritualistic, strict religion, can act as a predisposition to psychopathology. However, he emphasized the need for attention to the multidimensional aspects of religious phenomena and how each interacts with specific kinds of family environments.

The present study examined the relation of individuation to an established measure of

psychological adjustment, the SCL-90R. All three factors extracted from the DOSS were powerful predictors of psychological adjustment, accounting for 35% of the variance. Psychological maladjustment was predicted by emotionality/dependence on others, an unhappy family, and low scores on a sense of independence/identity. This result provides strong support for Bowen's (1978) proposal that persons less successful at the task of individuation are more likely to experience psychological distress in adulthood, while their more successful counterparts report less psychological difficulty.

When the three DOSS factors were regressed with the five family factors on the SCL-90R, all three DOSS factors, together with areligiosity in the family of origin, were significant. Thus, when viewed in combination with individuation factors, the previously predictive family structure factors of cohesion/support and harmony were rendered insignificant. The decrease in importance of the two family structure factors is likely due to the strong and understandable negative correlation between the

DOSS unhappy family factor and family cohesion/support and harmony. These more specific family structure factors were subsumed by a general factor of family unhappiness.

Hierarchical regression of the three DOSS variables, the five family structure variables, and the three abuse variables resulted in the significance of all three DOSS variables, family religious orientation, and sexual abuse. Bowen's (1978) theory that individuation is pre-eminent in psychological adjustment was given further support. This relation was more more clearly defined for males than for females, as seen in the multiple regressions for each sex. All three DOSS factors were significantly related to psychological adjustment for men, whereas only emotionality/dependence on others predicted the psychological adjustment of women. The lack of predictive power of the DOSS factors for women's psychological adjustment scores is likely due to the finding that sexual abuse was a significant predictor of psychological distress for women, but not for men. For the women in the present sample,

then, it appears that sexual abuse took pre-eminence over individuation factors as a predictor of maladjustment. The only family structure variable to emerge as a significant predictor of psychological maladjustment was religious orientation in childhood. This relation was significant in the multiple regressions for both women and men.

Sexually abusive experiences emerged as the final significant predictor of psychological distress. While results indicated that the predictive ability of physical abuse and parental alcohol abuse diminished in the context of family structure and individuation factors, sexual abuse was not significantly related to family structure and individuation, and was in and of itself related to reported psychological difficulty. This finding may be explained in at least two ways. First, it may well be that sexual abuse is independent of familial factors, and is traumatic in its own right. An alternative explanation is based on the possible differences between the dynamics of the families where intrafamilial versus extrafamilial sexual abuse

has occurred. As has been noted, the majority of the sexual abuse reported in the present study was extrafamilial. The maladaptive family factors found in sexually abusive families are likely not as prevalent in families where sexual abuse has been perpetrated by an outsider. Results of the present study lend support to this hypothesis. This position is also taken by Cole and Woolger (1989), who found that women sexually abused by their fathers perceived both parents more negatively than did women abused by unrelated men. Thus, from this perspective sexual abuse emerged as a significant predictor of psychological maladjustment because it was mainly extrafamilial and generally unrelated to otherwise predictive family dynamics. To extrapolate, this argument suggests that if the sexual abuse had been mainly intrafamilial, sexual abuse may have been significantly correlated with family structure factors which may have in turn been stronger predictors of psychological maladjustment than the sexual abuse.

Further, in the separate multiple regressions

for women and men, sexual abuse was a significant predictor of psychological difficulty for women, but not for men. There are at least two possible explanations for this finding. First, it may be that sexual abuse may not be as traumatic for men as for women. This possibility is suggested by the research of Fromuth and Burkhart (1989), which indicated that some male college students did not report traumatization by sexually abusive experiences in childhood. Second, sample size may have been inadequate. The number of males in the present study who reported sexually abusive experiences may have been too small for that variable to impact significantly on adjustment.

Summary and Conclusions

Results of the present study emphasized the importance of family structure and individuation in understanding psychological adjustment to physical, sexual, and parental alcohol abuse. It was discovered that family factors reduced the significance of physical abuse, but not extrafamilial sexual abuse nor alcohol abuse, in psychological

adjustment. The close connection of physical discipline/abuse with family structure should be taken into consideration by persons dealing with physically abusive families.

In addition, considerable support was provided for Bowen's (1978) theory of individuation, which has been the hallmark of family systems approaches but has received little empirical attention. It was found that differentiation of self is closely tied to the nature of perceived early family structure and to young adult psychological adjustment. Numerous aspects of family structure were related to all three factors extracted from the DOSS. Further, all three DOSS factors were found to be significantly related to psychological adjustment.

A number of limitations to the present study should also be considered. First, the university student sample is not ideally representative of the general population, thus generalizability to other populations is limited. Sample limitations include age, socioeconomic status, marital status, and education. In addition, the sample was limited to

volunteers participating in the study for course credit. However, university students provide a less biased view of the issues involved than the clinical samples commonly employed. Finally, the use of retrospective reports provides a number of difficulties. Memory of childhood experiences are not completely dependable, and participants may exhibit either a positive or negative response bias in describing childhood experiences and family life.

The present study provides a number of directions for future experimentation. First, results point to the importance of further inquiry into the relation of family structure with parental alcohol abuse and intrafamilial sexual abuse. The present study found a comparatively weak correlation of family structure with parental alcohol abuse, and the amount of intrafamilial sexual abuse reported was insufficient for reliable and valid analyses. Second, generalizability of the research questions addressed in the present study could be improved with application to other populations. Third, longitudinal research with children would be

beneficial in further understanding the development
of a sense of self-separateness.

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Appendix A

Child Physical Abuse Scale

Almost everyone gets into conflicts with other people in their family and sometimes these lead to physical blows or violent behaviour. Answer the following questions about your experiences, **BEFORE YOU WERE AGE 14**, with your parents, stepparents, or guardians. Please use the following scale to indicate how often each of these behaviours occurred.

1 = Never

2 = Once or twice

3 = 3-10 times

4 = 11-20 times

5 = More than 20 times

How often did your parents or guardians:

- 1) Hit or slap you really hard
- 2) Beat or kick you.
- 3) Push, throw, or knock you down.
- 4) Hit you with an object.
- 5) Pull your hair.
- 6) Burn or scald you.
- 7) Scratch or dig fingernails into you.

8) Twist or pull your leg or arm.

If you answered yes to any of the above, please indicate if the following people were involved at any point in time.

YES = 1 NO = 2

9) mother

10) father

11) stepmother

12) stepfather

13) other adult relative or guardian

If you experienced any of the above behaviours, by any of the above individuals, did they ever result in the following?

YES = 1 NO = 2

14) bruises or scratches

15) cuts

16) injuries requiring medical treatment

17) other injury

Did any of the following people ever hit you or beat you before you were 14?

YES = 1 NO = 2

18) brother or sister

Family Environment

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19) other child or adolescent

20) other adult non-family member

21) Do you feel that you were physically abused as a
child?

YES = 1 NO = 2

Appendix B

Child Sexual Abuse Scale

It is now generally realized that most people have sexual experiences as children and while they are still growing up. Some of these are with friends and playmates, and some with relatives and family members. Some are very upsetting and painful, and some are not. Some influence people's later lives and sexual experiences, and some are practically forgotten. Although these may be important events, very little is actually known about them.

We would like you to try to remember the sexual experiences you had while growing up. Please use the following scale to indicate how often each of these sexual experiences occurred when you were **AGE 14 OR YOUNGER with someone at least 5 YEARS OLDER** than yourself.

1 = Never

2 = Once or twice

3 = 3-10 times

4 = 11-20 times

5 = More than 20 times

- (1) An invitation or request to do something sexual.
- (2) Kissing and hugging in a sexual way.
- (3) Another person showing his/her sex organs to you.
- (4) You showing your sex organs to another person.
- (5) Another person fondling you in a sexual way.
- (6) You fondling another person in a sexual way.
- (7) Another person touching your sex organs.
- (8) You touching another person's sex organs.
- (9) Attempted intercourse.
- (10) Intercourse.

If you answered no to questions 1 to 10, then you may hand in the questionnaire. If you answered yes to any of questions 1 to 10, then please continue to answer the following questions.

If any of the above experiences occurred with more than one individual then answer the following questions for the experience that seems most significant to you.

PLEASE WRITE YOUR ANSWERS TO THE NEXT 3 QUESTIONS (a to c) IN THE SPACE PROVIDED BELOW.

a) How old were you the first time this happened?

b) How old was the other person, the first time it happened? _____

c) Was the other person:

a stranger	_____
an acquaintance	_____
a friend of yours	_____
a friend of your parents	_____
your father/mother	_____
grandfather/grandmother	_____
stepfather/stepmother	_____
boyfriend/girlfriend	_____
uncle/aunt	_____
brother/sister	_____
cousin	_____
neighbour	_____
your teacher	_____
your babysitter	_____
other (specify)	_____

NOW CONTINUE TO ANSWER ON THE IBM SHEET

11. Was the other person: male = 1 female = 2

12. For how long would you estimate that this sexual

behaviour continued? (answer for the most appropriate category)

happened over one day or a few days = 1

happened over a period of a few weeks = 2

happened over a period of a few months = 3

happened over a period of a few years = 4

happened over a period of many years = 5

Using the following scale, indicate if the other person ever:

YES = 1 NO = 2

13. threatened you

14. forced you

15. hurt you physically

16. convinced you to participate

17. Looking back at it now, would you say this experience was:

positive 1...2...3...4...5 negative

18. How confident do you feel about your memory of this experience?

not very confident 1...2...3...4...5 very confident

19. Do you feel that you were sexually abused as a child?

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yes = 1 no = 2

Appendix C

Children of Alcoholics Screening Test (CAST)

This survey is completely anonymous. Do not sign your name or make any other identificatory marks. In that way no one will be able to discover who answered it. Please check the answer ON THE IBM SHEET that best describes your feelings, behaviour, and experiences related to a parent's alcohol use. Take your time and be as accurate as possible. Answer all 30 questions by marking either 1 for "YES" or 2 for "NO".

Sex: Male_____ Female_____ Age:_____

YES NO QUESTION

- | | | |
|-------|-------|---|
| _____ | _____ | 1. Have you ever thought that one of your parents had a drinking problem? |
| _____ | _____ | 2. Have you ever lost sleep because of a parent's drinking? |
| _____ | _____ | 3. Did you ever encourage one of your parents to quit drinking? |
| _____ | _____ | 4. Did you ever feel alone, scared, nervous, angry, or frustrated because a parent was unable to stop drinking? |

- ____ 5. Did you ever argue or fight with a
parent when he or she was drinking?
- ____ 6. Did you ever threaten to run away
from home because of a parent's
drinking?
- ____ 7. Has a parent ever yelled at or hit
you or any other family members when
drinking?
- ____ 8. Have you ever heard your parents
fight when one of them was drunk?
- ____ 9. Did you ever protect another family
member from a parent who was drinking?
- ____ 10. Did you ever feel like hiding or
emptying a parent's bottle of liquor?
- ____ 11. Do many of your thoughts revolve
around a problem drinking parent or
difficulties that arise because of
his/her drinking?
- ____ 12. Did you ever wish that a parent
would stop drinking?
- ____ 13. Did you ever feel responsible for &
guilty about a parent's drinking?

- ____ 14. Did you ever fear that your parents
would get divorced due to alcohol
misuse?
- ____ 15. Have you ever withdrawn from &
avoided outside activities & friends
because of embarrassment & shame over
a parent's drinking problem?
- ____ 16. Did you ever feel caught in the
middle of an argument or fight between
a problem drinking parent & your other
parent?
- ____ 17. Did you ever feel that you made a
parent drink alcohol?
- ____ 18. Have you ever felt that a problem
drinking parent did not really love
you?
- ____ 19. Did you ever resent a parent's
drinking?
- ____ 20. Have you ever worried about a
parent's health because of his or her
alcohol use?
- ____ 21. Have you ever been blamed for a

parent's drinking?

_____ 22. Did you ever think your father was
an alcoholic?

_____ 23. Did you ever wish your home could
be more like the homes of your friends
who did not have a parent with a
drinking problem?

_____ 24. Did a parent ever make promises to
you that he or she did not keep
because of drinking?

_____ 25. Did you ever think your mother was
an alcoholic?

_____ 26. Did you ever wish that you could
talk to someone who could understand &
help the alcohol-related problems in
your family?

_____ 27. Did you ever fight with your
brothers & sisters about a parent's
drinking?

_____ 28. Did you ever stay away from home to
avoid the drinking parent or your
other parent's reaction to the

drinking?

- _____ 29. Have you ever felt sick, cried, or
had a "knot" in your stomach after
worrying about a parent's drinking?
- _____ 30. Did you ever take over any chores
at home that were usually done by a
parent before he or she developed a
drinking problem?

Appendix D

FAMILY ENVIRONMENT SCALE

The statements listed below describe situations which could happen in a family. For each statement below, please mark in **1 ON THE IBM SHEET** if the statement describes your family most of the time, as it was when you were a child (age 14 or younger) or **2** if the statement does not describe your family most of the time as it was when you were a child (age 14 or younger).

- | | | |
|---|---|---|
| T | F | 1. Family members really helped and supported one another. |
| T | F | 2. Family members often kept their feelings to themselves. |
| T | F | 3. We fought a lot in our family. |
| T | F | 4. We didn't do things on our own very often in our family. |
| T | F | 5. We felt it was important to be good at whatever you did. |
| T | F | 6. We often talked about political and social problems. |

- T F 7. We spent most weekends and evenings at home.
- T F 8. Family members attended church, synagogue, or Sunday school fairly often.
- T F 9. Activities in our family were pretty carefully planned.
- T F 10. Family members were rarely ordered around.
- T F 11. We often seemed to be killing time at home.
- T F 12. We said anything we wanted to around home.
- T F 13. Family members rarely became openly angry.
- T F 14. In our family, we were strongly encouraged to be independent.
- T F 15. Getting ahead in life was very important in our family.
- T F 16. We rarely went to lectures, plays, or concerts.
- T F 17. Friends often came over for dinner or to visit.

- T F 18. We didn't say prayers in our family.
- T F 19. We were generally very neat and orderly.
- T F 20. There were very few rules to follow in our family.
- T F 21. We put a lot of energy into what we did at home.
- T F 22. It was hard to "blow off steam" at home without upsetting somebody.
- T F 23. Family members sometimes got so angry they threw things.
- T F 24. We thought things out for ourselves in our family.
- T F 25. How much money a person makes was not important to us.
- T F 26. Learning about new and different things was very important in our family.
- T F 27. Nobody in our family was active in sports, Little League, bowling, etc.
- T F 28. We often talked about the religious meanings of Christmas, Passover, or other holidays.

- T F 29. It was often hard to find things when you needed them in our household.
- T F 30. There was one family member who made most of the decisions.
- T F 31. There was a feeling of togetherness in our family.
- T F 32. We told each other about our personal problems.
- T F 33. Family members hardly ever lost their tempers.
- T F 34. We came and went as we wanted to in our family.
- T F 35. We believed in competition and "may the best person win".
- T F 36. We were not interested in cultural activities.
- T F 37. We often went to movies, sports events, camping, etc.
- T F 38. We didn't believe in heaven or hell.
- T F 39. Being on time was very important in our family.
- T F 40. There were set ways of doing things at

home.

- T F 41. We rarely volunteered when something had to be done at home.
- T F 42. If we felt like doing something on the spur of the moment we often just picked up and went.
- T F 43. Family members often criticized each other.
- T F 44. There was very little privacy in our family.
- T F 45. We always strove to do things just a little better the next time.
- T F 46. We rarely had intellectual discussions.
- T F 47. Everyone in our family had a hobby or two.
- T F 48. Family members had strict ideas about what was right and wrong.
- T F 49. People changed their minds often in our family.
- T F 50. There was a strong emphasis on following rules in our family.

- T F 51. Family members really backed each other up.
- T F 52. Someone usually got upset if you complained in our family.
- T F 53. Family members sometimes hit each other.
- T F 54. Family members almost always relied on themselves when a problem came up.
- T F 55. Family members rarely worried about job promotions.
- T F 56. Someone in our family played a musical instrument.
- T F 57. Family members were not very involved in recreational activities outside work or school.
- T F 58. We believed there were some things you have to take on faith.
- T F 59. Family members made sure their rooms were neat.
- T F 60. Everyone had an equal say in family decisions.
- T F 61. There was very little group spirit in

our family.

- T F 62. Money and paying bills was openly talked about in our family.
- T F 63. If there was a disagreement in our family, we tried hard to smooth things over and keep the peace.
- T F 64. Family members strongly encouraged each other to stand up for their rights.
- T F 65. In our family, we didn't try hard to succeed.
- T F 66. Family members often went to the library.
- T F 67. Family members sometimes attended courses or took lessons for some hobby or interest (outside of school).
- T F 68. In our family, each person had different ideas about what was right and wrong.
- T F 69. Each person's duties were clearly defined in our family.
- T F 70. We could do whatever we wanted to in our family.

- T F 71. We really got along well with each other.
- T F 72. We were usually careful about what we said to each other.
- T F 73. Family members often tried to one-up or outdo each other.
- T F 74. It was hard to be by yourself without hurting someone's feelings in our household.
- T F 75. "Work before play" was the rule in our family.
- T F 76. Watching TV was more important than reading in our family.
- T F 77. Family members went out a lot.
- T F 78. The Bible was a very important book in our home.
- T F 79. Money was not handled very carefully in our family.
- T F 80. Rules were pretty inflexible in our household.
- T F 81. There was plenty of time and attention for everyone in our family.

- T F 82. There were a lot of spontaneous discussions in our family.
- T F 83. In our family, we believed you don't ever get anywhere by raising your voice.
- T F 84. We were not really encouraged to speak up for ourselves in our family.
- T F 85. Family members were often compared with others as to how well they were doing at work or school.
- T F 86. Family members really liked music, art, and literature.
- T F 87. Our main form of entertainment was watching TV or listening to the radio.
- T F 88. Family members believed that if you sinned you would be punished.
- T F 89. Dishes were usually done immediately after eating.
- T F 90. You couldn't get away with much in our family.

Items on Factor 1: -1, 2, -31, -32, 46, -51, 61, -63, -71, -81, -82

Items on Factor 2: 3, -10, -13, 23, -33, 35, 41, 43,

44, 49, 52, 53, -60, 73, -83, 85

Items on Factor 3: 9, -12, 19, -20, 21, -34, 39, 40,
-42, 48, 50, 59, 69, -70, 75, 89, 90

Items on Factor 4: 7, 16, -17, -26, 27, 36, -37, -47,
57, -64, 65, -67, -77, 84, -86

Items on Factor 5: 8, -18, 28, 58, 78, 88

Note: Negative items have negative factor loadings.

Appendix E

Family Adaptability and Cohesion Evaluation Scale
(FACES III)

1	2	3	4	5
ALMOST NEVER	ONCE IN AWHILE	SOMETIMES	FREQUENTLY	ALMOST ALWAYS

ON THE IBM SHEET, DESCRIBE YOUR FAMILY AS IT WAS WHEN
YOU WERE A CHILD, UNDER THE AGE OF 14:

- _____ 1. Family members ask each other for help.
- _____ 2. In solving problems, the children's
suggestions are followed.
- _____ 3. We approve of each other's friends.
- _____ 4. Children have a say in their discipline.
- _____ 5. We like to do things with just our
immediate family.
- _____ 6. Different persons act as leaders in our
family.
- _____ 7. Family members feel closer to other family
members than to people outside the family.
- _____ 8. Our family changes its way of handling

tasks.

- _____ 9. Family members like to spend free time with each other.
- _____ 10. Parent(s) and children discuss punishment together.
- _____ 11. Family members feel very close to each other.
- _____ 12. The children make the decisions in our family.
- _____ 13. When our family gets together for activities, everybody is present.
- _____ 14. Rules change in our family.
- _____ 15. We can easily think of things to do together as a family.
- _____ 16. We shift household responsibilities from person to person.
- _____ 17. Family members consult other family members on their decisions.
- _____ 18. It is hard to identify the leader(s) in our family.
- _____ 19. Family togetherness is very important.
- _____ 20. It is hard to tell who does which

household chores.

Items on Factor 1: 1, 2, 3, 4, 5, 7, 9, 10, 11, 13,
15, 16, 17, 19

Appendix F

DIFFERENTIATION OF SELF SCALE (DOSS)

Below you will find a set of statements, each followed by the numbers from 1 to 5. Please read each statement carefully, and if you think it is very much like the way you think, mark **5 ON THE IBM SHEET**. If, however, you feel that it is very much unlike you, then mark **1 ON THE IBM SHEET**. Use the other numbers if the statements are a little like you (2), somewhat like you (3), or much like you (4). There are no right or wrong answers. In answering the statements, think about how you are, and have been most of your life, not just the way you are now. Please read and answer all questions.

Very					Very
Much					Much
Like					Unlike
Me					Me
1	2	3	4	5	

1. I have trouble with communication in close relationships.

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1 2 3 4 5

2. When I am emotionally upset I often feel sick.

1 2 3 4 5

3. When I am emotionally upset I get depressed.

1 2 3 4 5

4. My teenage years were filled with emotional difficulties.

1 2 3 4 5

5. I like visiting with my family.

1 2 3 4 5

6. My life seems to go from one crisis to another.

1 2 3 4 5

7. When I become tense or nervous, I keep to myself.

1 2 3 4 5

8. I will change or ignore my beliefs if it will help me to get something I want.

1 2 3 4 5

9. I am very concerned about approval and love.

1 2 3 4 5

10. I join groups more to be with others, than because I believe in the cause.

1 2 3 4 5

11. I am always bothered by anxiety.

1 2 3 4 5

12. When there is tension between me and somebody else, I "clam up".

1 2 3 4 5

13. I believe that luck is an important part of my life.

1 2 3 4 5

14. I avoid close emotional relationships.

1 2 3 4 5

15. I am very aware of my strengths and weaknesses.

1 2 3 4 5

16. How I feel about myself depends a lot on how others feel about me.

1 2 3 4 5

17. I have had more than my share of emotional and physical problems.

1 2 3 4 5

18. The people in my family have been open and honest with each other.

1 2 3 4 5

19. I am easily upset.

1 2 3 4 5

20. I often depend on others to help me when I am in a crisis.

1 2 3 4 5

21. Close emotional relationships provide me with a sense of security.

1 2 3 4 5

22. When I feel myself getting emotionally close to someone I feel like running away, or ending the relationship.

1 2 3 4 5

23. When I make a decision I often worry about the disapproval of others.

1 2 3 4 5

24. My knowing that I have done a good job is more important than the praise of others.

1 2 3 4 5

25. I get very upset over rejection or lack of love.

1 2 3 4 5

26. I have a well defined set of values and beliefs.

1 2 3 4 5

27. I have no trouble establishing close

relationships with others.

1 2 3 4 5

28. If I fight with somebody close to me I worry
about it for quite awhile.

1 2 3 4 5

29. I give in to group pressure easily.

1 2 3 4 5

30. I tend to deal with emotional problems by
myself, rather than getting help from others.

1 2 3 4 5

31. When I was growing up there seemed to be a lot
of conflict and tension in my family.

1 2 3 4 5

32. I will change my opinions to avoid arguments
with people.

1 2 3 4 5

33. A lot of my energy goes into being what other
people want me to be.

1 2 3 4 5

34. I am emotionally mature.

1 2 3 4 5

35. My relationship with my parents has been very

good.

1 2 3 4 5

36. I am very sure of my masculinity/femininity.

1 2 3 4 5

37. As a child, I was pretty independent from my
parents.

1 2 3 4 5

38. I have control over my life.

1 2 3 4 5

39. I have set very clear and detailed goals for
myself.

1 2 3 4 5

40. During a crisis I can "keep my head" and figure
out a logical solution to the problem.

1 2 3 4 5

41. I avoid saying things that might start
arguments.

1 2 3 4 5

Items on Factor 1: 2, 3, 9, 11, 12, 16, 19, 20, 21,
23, 25, 28, 29, 32, 33

Items on Factor 2: -1, 15, 18, 26, 27, -29, -33, 34,
35, 36, 38, 39, 40

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Items on Factor 3: 4, -5, 6, 17, -18, 31, -35

Note: Negative items have negative factor loadings.

Appendix G

Symptom Checklist 90 Revised (SCL 90R)

Below is a list of problems and complaints that people sometimes have. Please read each one carefully. After you have done so, please mark the number **ON THE IBM SHEET** that best describes how much that problem has bothered or distressed you during the past TWO MONTHS including today. Mark one number for each problem and do not skip any items. If you change your mind, erase your first choice completely. Please use the following scale.

Not at all	A Little	Moderately	Quite	Extremely
	Bit		a Bit	

0	1	2	3	4
---	---	---	---	---

HOW MUCH WERE YOU BOTHERED BY:

1. Headaches	0	1	2	3	4
2. Nervousness	0	1	2	3	4
3. Unwanted thoughts, words, or ideas that won't leave your mind	0	1	2	3	4
4. Faintness or dizziness	0	1	2	3	4
5. Loss of sexual interest or pleasure	0	1	2	3	4

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6. Feeling critical of others	0	1	2	3	4
7. The idea that someone else can control your thoughts	0	1	2	3	4
8. Feeling others are to blame for most of your troubles	0	1	2	3	4
9. Trouble remembering things	0	1	2	3	4
10. Worried about sloppiness or carelessness	0	1	2	3	4
11. Feeling easily annoyed or irritated	0	1	2	3	4
12. Pains in heart or chest	0	1	2	3	4
13. Feeling afraid in open spaces or on the streets	0	1	2	3	4
14. Feeling low in energy or slowed down	0	1	2	3	4
15. Thoughts of ending your life	0	1	2	3	4
16. Hearing voices that other people don't hear	0	1	2	3	4
17. Trembling	0	1	2	3	4
18. Feeling that most people cannot be trusted	0	1	2	3	4
19. Poor appetite	0	1	2	3	4

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20. Crying easily	0	1	2	3	4
21. Feeling shy or uneasy with the opposite sex	0	1	2	3	4
22. Feeling of being trapped or caught	0	1	2	3	4
23. Suddenly scared for no reason	0	1	2	3	4
24. Temper outbursts that you could not control	0	1	2	3	4
25. Feeling afraid to go out of your house alone	0	1	2	3	4
26. Blaming yourself for things	0	1	2	3	4
27. Pains in lower back	0	1	2	3	4
28. Feeling blocked in getting things done	0	1	2	3	4
29. Feeling lonely	0	1	2	3	4
30. Feeling blue	0	1	2	3	4
31. Worrying too much about things	0	1	2	3	4
32. Feeling no interest in things	0	1	2	3	4
33. Feeling fearful	0	1	2	3	4
34. Your feelings being easily hurt	0	1	2	3	4
35. Other people being aware of your private thoughts	0	1	2	3	4

36. Feeling others do not understand you or are unsympathetic	0	1	2	3	4
37. Feeling that people are unfriendly or dislike you	0	1	2	3	4
38. Having to do things very slowly to insure correctness	0	1	2	3	4
39. Heart pounding or racing	0	1	2	3	4
40. Nausea or upset stomach	0	1	2	3	4
41. Feeling inferior to others	0	1	2	3	4
42. Soreness of your muscles	0	1	2	3	4
43. Feeling that you are being watched or talked about by others	0	1	2	3	4
44. Trouble falling asleep	0	1	2	3	4
45. Having to check and double- check what you do	0	1	2	3	4
46. Difficulty making decisions	0	1	2	3	4
47. Feeling afraid to travel on buses, subways, or trains	0	1	2	3	4
48. Trouble getting your breath	0	1	2	3	4
49. Hot or cold spells	0	1	2	3	4
50. Having to avoid certain things, places, or activities because they					

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frighten you	0	1	2	3	4
51. Your mind going blank	0	1	2	3	4
52. Numbness or tingling in parts of your body	0	1	2	3	4
53. A lump in your throat	0	1	2	3	4
54. Feeling hopeless about the future	0	1	2	3	4
55. Trouble concentrating	0	1	2	3	4
56. Feeling weak in parts of your body	0	1	2	3	4
57. Feeling tense or keyed up	0	1	2	3	4
58. Heavy feelings in your arms or legs	0	1	2	3	4
59. Thoughts of death or dying	0	1	2	3	4
60. Overeating	0	1	2	3	4
61. Feeling uneasy when people are watching or talking about you	0	1	2	3	4
62. Having thoughts that are not your own	0	1	2	3	4
63. Having urges to beat, injure, or harm someone	0	1	2	3	4
64. Awakening in the early morning	0	1	2	3	4

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65. Having to repeat the same actions such as touching, counting, washing	0	1	2	3	4
66. Sleep that is restless or disturbed	0	1	2	3	4
67. Having urges to break or smash things	0	1	2	3	4
68. Having ideas or beliefs that others do not share	0	1	2	3	4
69. Feeling very self-conscious with others	0	1	2	3	4
70. Feeling uneasy in crowds, such as shopping or at a movie	0	1	2	3	4
71. Feeling everything is an effort	0	1	2	3	4
72. Spells of terror or panic	0	1	2	3	4
73. Feeling uncomfortable about eating or drinking in public	0	1	2	3	4
74. Getting into frequent arguments	0	1	2	3	4
75. Feeling nervous when you are left alone	0	1	2	3	4
76. Others not giving you proper credit for your achievements	0	1	2	3	4

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77. Feeling lonely even when you are with people	0	1	2	3	4
78. Feeling so restless you couldn't sit still	0	1	2	3	4
79. Feelings of worthlessness	0	1	2	3	4
80. Feeling that familiar things are strange or unreal	0	1	2	3	4
81. Shouting or throwing things	0	1	2	3	4
82. Feeling afraid you will faint in public	0	1	2	3	4
83. Feeling that people will take advantage of you if you let them	0	1	2	3	4
84. Having thoughts about sex that bother you a lot	0	1	2	3	4
85. The idea that you should be punished for your sins	0	1	2	3	4
86. Feeling pushed to get things done	0	1	2	3	4
87. The idea that something serious is wrong with your body	0	1	2	3	4
88. Never feeling close to another person	0	1	2	3	4

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- | | | | | | |
|--|---|---|---|---|---|
| 89. Feeling of guilt | 0 | 1 | 2 | 3 | 4 |
| 90. The idea that something is wrong
with your mind | 0 | 1 | 2 | 3 | 4 |

Table 1

Percent of Physically Disciplinary Experiences

	Never	Once or Twice	3-10 Times	11-20 Times	> 20 Times
Hit/Slap	36.5	32.1	15.9	4.9	10.6
Beat/Kick	82.3	10.5	3.0	1.1	3.2
Push/Knock Down	78.3	13.8	3.2	2.1	2.6
Hit with Object	65.7	16.6	8.9	1.8	7.0
Pull Hair	80.2	12.8	3.0	1.2	2.8
Burn/Scald	97.4	1.9	.5	0.0	.2
Scratch	85.1	9.3	3.2	1.2	1.2
Twist/Pull Leg/Arm	76.2	15.7	4.4	1.9	1.6

Table 2

Percent of Sexual Experiences

	Never		Once or Twice		3-10 Times		11-20 Times		> 20 Times	
	M	F	M	F	M	F	M	F	M	F
Request	81.1	78.4	14.1	37.5	3.6	5.6	.4	.3	.8	1.6
Kissing/Hugging	81.0	77.7	12.9	13.5	3.2	5.0	1.6	2.2	1.2	1.6
Other Showing										
Sex Organs	78.4	80.9	12.8	13.8	6.4	3.4	1.6	1.6	.8	.3
You Showing										
Sex Organs	81.6	87.8	12.8	9.1	4.4	2.2	.4	.9	.8	.0
Other Fondling	87.6	79.4	6.8	13.4	4.8	3.8	.4	2.8	.4	.6
You Fondling	83.6	89.7	9.6	7.2	6.0	2.2	.4	.9	.4	.0
Other Touching										
Your Sex Organs	87.1	84.1	8.0	10.9	3.6	1.9	1.2	2.5	.0	.6
You Touching										
Other's Sex										
Organs	84.0	90.3	10.8	6.9	4.8	1.3	.0	1.6	.4	.0
Attempt										
Intercourse	89.6	92.5	8.4	5.3	1.6	1.6	.0	.6	.4	.0
Intercourse	94.2	95.1	4.2	3.9	.8	.3	.0	.0	.8	.3

Table 3

Means and Standard Deviations of Scores on SCL-90R Subscales

	MEAN	STANDARD DEVIATION
SUBSCALE		
Somatization	1.84	.63
Obsessiveness Compulsiveness	2.22	.70
Interpersonal Sensitivity	2.26	.76
Depression	2.11	.69
Anxiety	1.86	.65
Hostility	1.97	.77
Phobic Anxiety	1.44	.53
Paranoid Ideation	2.01	.75
Psychoticism	1.72	.63

Table 4

Multiple Regression Analyses on SCL-90R

	Beta Weights	T-Values
ABUSE VARIABLES		
Physical Abuse	.13	3.17***
Sexual Abuse	.14	3.05***
Alcohol Abuse	.14	2.97***
$R^2 = .07$		
R^2 (adj.) = .06		

FAMILY FACTORS		
1: Cohesion and Support	-.12	-2.27*
2: Harmony	-.21	-4.05***
3: Lack of Structure	-.02	-.61
4: Social/Cultural Activities	-.02	-.61
5: Lack of Religiosity	-.11	-2.41*
$R^2 = .10$		
R^2 (adj.) = .09		

ABUSE VARIABLES AND FAMILY FACTORS

Physical Abuse	.03	.57
Sexual Abuse	.12	2.7**

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Alcohol Abuse	.12	2.76**
1: Cohesion and Support	-.10	-1.89
2: Harmony	-.17	-3.19**
3: Lack of Structure	-.04	-.80
4: Social/Cultural Activities	-.02	-.35
5: Lack of Religiosity	-.11	-2.32*

$R^2 = .13$

R^2 (adj.) = .11

* $p < .05$

** $p < .01$

*** $p < .005$

Table 5

Canonical Correlation of Abuse Variables and
Family Structure Factors

<u>Variables</u>	<u>Correlation Coefficients</u>	
	<u>Root 1</u>	<u>Root 2</u>
A. Family Structure		
1: Cohesion and Support	<u>-.71</u>	<u>-.31</u>
2: Harmony	<u>-.94</u>	-.06
3: Lack of Structure	-.14	<u>.85</u>
4: Social/Cultural Activities	<u>-.45</u>	-.20
5: Lack of Religiosity	-.08	<u>.67</u>
% Variance:	32.36%	26.06%
B. Abuse		
Physical Abuse	<u>.95</u>	-.27
Sexual Abuse	.29	.02
Alcohol Abuse	<u>.38</u>	<u>.92</u>
% Variance:	9.23%	.82%

Note: Underlined figures are statistically significant.

Table 6

Multiple Regression of DOSS Factors on Psychological Adjustment

	Beta Weight	T-Value
Factor		
1: Emotionality/dependence	.42	10.70***
2: Independence/identity	.10	-2.28*
3: Unhappy family	.23	5.50***

$R = .59$

$R^2 = .35$

R^2 (adj.) = .35

* $p < .05$

*** $p < .005$

Table 7

Canonical Correlation of Family Structure Factors and
DOSS Factors

Correlation Coefficients

<u>Variables</u>	<u>Root 1</u>	<u>Root 2</u>	<u>Root 3</u>
A. Family Structure			
1: Cohesion/Support	<u>-.94</u>	<u>.30</u>	.02
2: Harmony	<u>-.75</u>	<u>-.57</u>	-.16
3: Lack of Structure	-.02	<u>-.43</u>	-.16
4: Social/Cultural Activities	<u>-.45</u>	-.12	<u>.87</u>
5: Lack of Religiosity	.12	-.06	-.18
%Variance	16.22%	.26%	.26%
B. DOSS			
1: Emotionality/Dependence	.14	<u>.81</u>	<u>-.57</u>
2: Independence/Identity	<u>-.61</u>	.18	<u>.77</u>
3: Unhappy Family	<u>.97</u>	.21	.08
%Variance	44.90%	24.43%	30.67%

Note: Underlined correlation coefficients are significant.

Table 8

Multiple Regression of DOSS and Family Structure Factors
on Psychological Adjustment

Factor	Beta Weight	T-Value
DOSS		
1: Emotionality/dependence	.44	10.74***
2: Independence/identity	-.11	-2.37*
3: Unhappy family	.19	3.63***
Family Structure		
1: Cohesion/support	-.04	-.77
2: Harmony	-.08	-1.88
3: Lack of structure	.00	.02
4: Social/cultural activities	.06	1.44
5: Lack of religiosity	-.14	-3.66***

$$R^2 = .36$$

$$R^2 (\text{adj.}) = .35$$

*p<.05

***p<.005

Table 9

Hierarchical Regression of Abuse Variables,
Family Structure Variables, and DOSS Variables on SCL-90R

Variable	Beta Weight	T-Value
A. Abuse		
Physical Abuse	.00	.05
Sexual Abuse	.09	2.29*
Alcohol Abuse	.06	1.50
B. Family Structure		
1: Cohesion/Support	-.04	-.79
2: Harmony	-.08	-1.63
3: Lack of Structure	.01	.19
4: Social/Cultural Activities	-.06	-1.50
5: Lack of Religiosity	-.14	-3.58***
C. DOSS		
1: Emotionality/Dependence	.43	10.63***
2: Independence/Identity	-.12	-2.45*
3: Unhappy Family	.16	3.02**

$R^2 = .39$

R^2 (adj.) = .38

* $p < .05$

** $p < .01$

*** $p < .005$

Table 10

Multiple Regression on Psychological Adjustment:

Males and Females

Variable	Males		Females	
	Beta-Weight	T-Value	Beta-Weight	T-value
A. Abuse				
Physical Abuse	.02	.33	.01	.18
Sexual Abuse	.01	.12	.12	2.44*
Alcohol Abuse	.08	1.28	.04	.66
B. Family Structure				
1: Cohesion/Support	-.04	-.48	-.09	-1.26
2: Harmony	-.05	-.76	-.10	-1.55
3: Lack of Structure	.06	.99	.04	.78
4: Social/Cultural Act.	-.09	-1.37	-.03	-.64
5: Lack of Religiosity	-.17	-2.84**	-.12	-2.27*
C. DOSS				
1: Emotionality/Dep.	.41	6.15***	.41	7.67***
2: Independence/Identity	-.18	-2.41*	-.10	-1.70
3: Unhappy Family	.20	2.47*	.12	1.60
	$R^2 = .41$		$R^2 = .38$	
	R^2 (adj.) = .38		R^2 (adj.) = .36	

*p<.05

**p<.01

***p<.001