Coping Strategies, Social Support, and Recovery from Physical and Sexual Maltreatment During Childhood

by

Marsha Runtz

A thesis
presented to the University of Manitoba
in partial fulfilment of the
requirements for the degree of
Doctor of Philosophy
in
Department of Psychology

Winnipeg, Manitoba
(c) Marsha Runtz, 1991

National Library of Canada

Bibliothèque nationale du Canada

Acquisitions and Bibliographic Services Branch

Direction des acquisitions et des services bibliographiques

395 Wellington Street
Ottawa, Ontario
K1A 0N4

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file Votre référence

Our file Notre référence

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-315-77863-6

Canada

COPING STRATEGIES, SOCIAL SUPPORT, AND RECOVERY FROM PHYSICAL AND SEXUAL MALTREATMENT DURING CHILDHOOD

BY

MARSHA RUNTZ

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

DOCTOR OF PHILOSOPHY

© 1991

Permission has been granted to the LIBRARY OF THE UNIVERSITY OF MANITOBA to lend or sell copies of this thesis. to the NATIONAL LIBRARY OF CANADA to microfilm this thesis and to lend or sell copies of the film, and UNIVERSITY MICROFILMS to publish an abstract of this thesis.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

ABSTRACT

The present study examined child maltreatment and the coping styles used to deal with these experiences among 653 male and female students at the University of Manitoba. Over one third of subjects reported at least one form of child maltreatment prior to age 18: 12% of subjects had sexual contact with someone at least five years older before age 15, 14% had nonconsensual sexual experiences or sexual contact with someone at least ten years older between age 15 and 18, and 24% reported being injured by parental physical maltreatment prior to age 18. Overall, the greater the extent of the maltreatment, the poorer the psychosocial adjustment. In particular, higher levels of physical maltreatment were associated with greater psychological symptomatology, poor self-concept, a chance locus of control, lack of an internal locus of control, lack of support from family, low general self-efficacy, and difficulty coping with current stressors. Each type of maltreatment was also associated with specific patterns of coping with those events. The most successful coping strategies among maltreated subjects included expressiveness, seeing oneself as a "survivor", and having adequate social supports, as these dimensions were uniquely associated with positive psychological adjustment. The use of avoidance, nervous/anxious coping, self-destructive behaviours, and being either detached from or upset about

the maltreatment constituted less effective means of coping as they were associated with poorer adjustment. Hence, adult coping styles and social support appear to act as mediators of the potentially negative sequelae of child sexual and physical maltreatment.

TABLE OF CONTENTS

ABSTRACT i

INTRODUCTION 1
Methodological Problems in the Study of Child Maltreatment 6
Defining Child Abuse 11
Defining Child Sexual Abuse 11
Defining Child Physical Maltreatment 15
Correlates of Child Maltreatment 20
Sequelae of Child Sexual Abuse 22
Sequelae of Child Physical Maltreatment 28
Factors Influencing the Impact of Child Maltreatment 35
Stress and Coping 41
Summary 57
Hypotheses 59

METHOD 62
Subjects and Procedure 62
Measures 64
Abuse and Maltreatment Measures 64
Child and Adolescent Sexual Abuse 64
Child Physical Maltreatment 67
Measures of Coping and Adjustment 68
General Coping and Adjustment 69
Coping Resources Scale 69
Locus of Control 70
Self-Efficacy Scale 71
Brief Symptom Inventory 72
Self-Concept 74
Coopersmith Self-Esteem Inventory 74
"How I see myself now" Scale 77
Social Support 78
Coping with Child Maltreatment 79
Coping: "How I deal with things" Scale 79
Impact of Event Scale 80
Recovery from Abuse Scale 81

RESULTS 83
Subject Characteristics 83
Data Characteristics 84
Child Maltreatment 85
Child Sexual Abuse Characteristics 87
Adolescent Sexual Abuse Characteristics 93
Physical Maltreatment Characteristics 98
Measurement of Coping and Adjustment 102
General Coping and Adjustment 102
Coping Resources Scale 104
Locus of Control 108
Self-Efficacy 108

Brief Symptom Inventory 109
Self-Esteem 109
Self-Concept: "How I see myself now" Scale . . 110
Social Support 111
Coping with Child Maltreatment 112
"How I deal with things" Scale 113
Impact of Event Scale 114
Recovery from Abuse Scale 114
Inferential Data Analysis 116
Hypothesis One 116
Hypotheses Two and Three 119
Hypothesis Four 124
Hypothesis Five 128
Hypothesis Six 133
Hypothesis Seven 138

DISCUSSION 144
The Relationship between Child Maltreatment and Psychosocial Adjustment and Coping 145
Type of Maltreatment and Trauma-specific Coping 155
Sex Differences in Personality, Self-concept, Social Relatedness, and Coping 160
Coping Styles and Social Support as Mediators of Adjustment 163
The Recovery from Abuse Scale and Adjustment . . . 172
Summary of Major Findings 179
Clinical Implications 182
Limitations and Implications for Further Study 186

References 194

APPENDIX A: Questionnaire 230

APPENDIX B: Debriefing Sheet 254

APPENDIX C: Correlation Matrices of Variables: (Tables C-1 to C-4) 255

APPENDIX D: Factor Analyses 260

D-1. Factor Analysis of Coping Resources Scale 260

D-2. Factor Analysis of the "How I see myself now" Scale 262

D-3. Factor Analysis of the "How I deal with things" Scale 265

D-4. Factor Analysis of the Recovery from Abuse Scale . 267

LIST OF TABLES

Table | Page

1. Frequency of Child and Adolescent Sexual Abuse and Physical Maltreatment 88

2. Child Sexual Abuse: Frequency of Item Endorsement . . . 89

3. Perpetrators of Child Sexual Abuse (prior to age 15) . . 91

4. Adolescent Sexual Abuse: Frequency of Item Endorsement . 94

5. Perpetrators of Adolescent Sexual Abuse 96

6. Child Physical Maltreatment: Frequency of Item Endorsement 99

7. Perpetrators of Child Physical Maltreatment Involving Injury 101

8. Scale Statistics and Cronbach's Alpha of Measures . . . 106

9. Canonical Correlation of Child Abuse with Psychological Adjustment and Self-Concept 118

10. Multiple Regression of Child Abuse and Subject Sex on Psychological Adjustment and Self-Concept 120

11. Canonical Correlation of Child Abuse and Sex with Self-Efficacy, Locus of Control, Social Support, and Coping 122

12. Multiple Regression of Child Abuse and Subject Sex on Self-Efficacy, Locus of Control, Social Support and Coping 124

13. Canonical Correlation of Child Abuse and Sex with Impact of Events, Recovery from Abuse, and "How I deal with things" 126

14. Multiple Regression of Child Abuse and Subject Sex on Impact of Events, Recovery from Abuse, and "How I deal with things" 127

15. Canonical Correlation of Abuse, Sex, Coping, and Social Support with Psychological Adjustment and Self-Concept 131

Table | Page

16. Multiple Regression of Abuse, Sex, Coping, and Social Support on Psychological Adjustment and Self-Concept 134

17. Canonical Correlation of Child Abuse, Subject Sex, Coping, and Social Support with Self-Efficacy and Locus of Control 137

18. Multiple Regression of Abuse, Sex, Coping, and Social Support on Self-Efficacy and Locus of Control . . . 139

19. Canonical Correlation of Child Abuse, Sex, and Recovery from Abuse with Psychological Adjustment and Self-Concept 141

20. Multiple Regression of Child Abuse, Sex, and Recovery from Abuse on Psychological Adjustment and Self-Concept 143

ACKNOWLEDGEMENTS

I would like to thank my entire doctoral committee for their patience and support over the past two years during the completion of my dissertation. My appreciation is extended to Rayleen DeLuca, Ross Hartsough, Neena Chappell, and most intensely, to John Schallow whose calm and dogged persistence helped to overcome the most stubborn of opposing forces. My thanks to the Social Science and Humanities Research Council of Canada (SSHRC) for their financial support during the first year of the project. Most important is my appreciation for my steadfast partner in life, Dick Stille, whose supportive humour and caring is unending.

INTRODUCTION

Over the past two to three decades a previously neglected area of research has appeared with increasing frequency within the social science literature: the study of child maltreatment. Social and professional awareness of the problem of "child cruelty" first occurred in 1962, when Henry Kempe first described the "battered child syndrome" (Kempe, Silverman, Steele, Droegmueler, & Silver, 1962). Since that time, exploration into the epidemiology, etiology, and effects of child maltreatment has proceeded rapidly within the disciplines of psychology, sociology, child development, social work, criminology, and others. Among the recent studies, much attention has been paid to the variety of forms of violence perpetrated against children both within and outside of the family (i.e., physical abuse, sexual abuse, neglect, psychological maltreatment, and the witnessing of interparental abuse). Two types of child victimization that have gained a great deal of attention in the literature lately, and that will be the primary focus of this study, are the sexual and physical maltreatment of children.

It is difficult to determine the actual extent of the problem of child maltreatment as the methodology used and population studied often determines the incidence and prevalence rates attained and the characteristics of the maltreatment experienced by the subjects. According to the

American Humane Association, in one year, 2.1 million children were reported to authorities as suspected victims of child abuse or neglect (sexual abuse, physical abuse, and neglect combined; American Humane Association, 1984). The seriousness of this maltreatment is evident in that approximately 1,100 children die each year in the U.S. as the result of suspected parental maltreatment (American Humane Association, 1984).

As a result of significant underreporting, cases of child abuse that are reported to child welfare officials represent only a fraction of the actual occurrence of child abuse. The official reasons given for child welfare involvement may also inaccurately reflect the actual maltreatment history of the child, particularly when more than one form of maltreatment is present (McGee, Wolfe, Yuen, & Carnochan, 1991). Therefore, methodologies that sample more extensively and representatively provide important sources of information about child abuse and maltreatment that may be missing from official reports.

For example, a national survey of over 2,100 American families indicated that approximately 1.5 million children per year experience acts of physical violence (Straus, Gelles, & Steinmetz, 1980). This estimate was based on the finding that 3.8% of the surveyed parents admitted to kicking, biting, or punching their children. In a recent replication of their original survey, Straus and Gelles

(1986) reported that 10.7% of parents admitted to having perpetrated a "severe violent act" against their child in the previous year. The overall rate of child abuse for 1985 was 2.9% (or one in 33) for children aged 3 to 17 living in a two-parent household (Gelles & Straus, 1987). In addition, although total levels of violence against children remained high, the frequency of "serious violence" (i.e., kicking, hitting, beating up, or use of a gun or knife) had actually declined since 1975 (from 3.6% to 1.9%; Straus & Gelles, 1986). A serious flaw in the Straus et al. studies is that they did not examine families with children under age 3 or single-parent families. As both of these factors appear to be associated with a higher risk of physical abuse of children (Gil, 1970; Kempe et al., 1962), these studies have likely seriously underestimated the actual rate of child physical maltreatment. Despite the problems with the Straus studies, general surveys are preferable to studies that examine only reported abuse, as their results are more generalizable.

Another source of information about child abuse has been developed through retrospective studies of college students. These studies rely on self-report and elicit variable rates of child physical maltreatment that vary with the definition of maltreatment that is used. For example, Runtz (1987) found that 29% of women reported that as children they had been beaten, kicked, pushed, and/or

injured by their parents. Similarly, Graziano and Namaste (1990) determined that 28% of college students reported experiencing either severe pain or welts and bruises as a result of parental physical discipline. Combining male and female subjects together, Cole (1986) reported that 21% of college students had experienced "frequent and/or severe physical punishment" as children. These studies appear to uncover more cases of maltreatment than do studies using only officially reported cases yet suffer from the lack of any means to corroborate the actual childhood experiences of the subjects. As found by McGee et al. (1991), children and adolescents often differ from outside observers (e.g., caseworkers) in their interpretation of the severity and occurrence of maltreatment. As evident in the above studies, researchers also lack agreement regarding which behaviours actually constitute child abuse.

Research into the prevalence and incidence of child sexual abuse has followed a similar course of study to that of physical abuse. For example, it has been estimated that the incidence of reported child sexual abuse ranges from 0.7 (National Center on Child Abuse and Neglect, 1981) to 1.4 (American Humane Association, 1984) of every 1,000 children in the United States. As with the figures cited earlier for physical abuse, these reflect only reported cases and are likely to seriously underestimate the actual incidence of sexual abuse of children.

In contrast to the studies of reported cases, a randomized telephone survey in the United States found that 27% of women and 16% of men had a history of sexual victimization prior to the age of 18 (Finkelhor, Hotaling, Lewis, & Smith, 1990). Similarly, in another survey of almost 3,000 professional women, 27% reported a history of sexual abuse prior to age 16 (Elliot & Briere, 1990). In Canada, the Committee on Sexual Offences Against Children and Youth (1984) concluded that at some point in their lives approximately one in two females and one in three males have been victims of unwanted sexual experiences, and that 80% of these acts occurred during childhood. Some of the more regionally circumscribed community surveys have also determined that about one in three or four women acknowledge experiencing child sexual abuse (Bagley & Ramsay, 1985/86; Russell, 1983). It is generally agreed that for every 2.5 women there is one man who has experienced child sexual abuse (Finkelhor & Baron, 1986).

Studies of college students have generally indicated that the rate of sexual abuse occurring among students is lower than that found in the general population. For example, Finkelhor's (1979a) college survey found that 19.2% of females and 8.6% of males had had an experience of child sexual abuse before age 17. Similarly, Cole (1986) found that 20% of students (male and female combined) had been sexually abused as children. Two Canadian studies found

that the rate of child sexual abuse (prior to age 15) among female college students ranged from 15% to 25% (Briere & Runtz, 1988b; Runtz, 1987).

In summary, both the physical and sexual maltreatment of children have been shown to occur with alarming frequency across Canada and the United States. Self-report surveys have suggested that as many as one third of women and one sixth of men have been victims of child sexual abuse while between one in four and one in thirty-three individuals have been physically maltreated by their parents during childhood.

Methodological Problems in the Study of Child maltreatment

In retrospective studies of child maltreatment, it is often either impossible, impractical, or unethical to verify the variables of primary interest (e.g., rate of occurrence and details of the abusive behaviour). Therefore, methodological concerns regarding sampling, operational definitions of variables, and the use of unusual or limited populations are particularly relevant to research in this field. To a great extent, how one chooses to sample the populations of individuals with a history of child maltreatment will influence the results attained.

As discussed by Knudsen (1988), there are three basic ways of obtaining information about child abuse: 1) self-reports by either victim or perpetrator of the abuse, 2)

total unevaluated reports of maltreatment made to legal or social service agencies prior to investigation, and 3) substantiated reports of maltreatment following professional or legal investigation. It is important to note that the frequency of child abuse attained will vary with each of the above methods and that none is able to provide precise information regarding the true incidence of child abuse (Knudsen, 1988). For example, according to Green (1980) there are 15 to 20 actual cases of child abuse for every case reported, therefore, surveys relying only on official reports will greatly underestimate the actual rate of abuse.

Self-report methodology has been popular among a number of child abuse researchers as it allows for more widespread sampling. On the other hand, self-report data suffer from difficulty in interpretation due to the lack of consensus about what constitutes abuse, legitimate punishment, or misunderstood behaviour (Knudsen, 1988). Studies that ask adults to recall potentially traumatic experiences that may have occurred years earlier are often faced with the prospect of subjects' inaccurate or distorted memories and perceptions. One dilemma arising from the retrospective nature of this type of study is that some subjects may be unable to recall details of their childhood that may be relevant to the study. There is evidence to suggest that the repression of abuse-related memories is very common among victims of child sexual abuse (Briere & Conte, 1989),

therefore, some subjects may not have access to memories of abuse that may have occurred. While this may be the case for some subjects, a study by Terr (1988) clearly demonstrated that children who have experienced a variety of traumas before the age of five are often able to accurately recall details of the traumatic events many years later. Even if subjects' recall of previous events is accurate, studies that attempt to link these events to later functioning may still suffer from the inability to clearly determine the influence of intervening events.

A related problem with this type of research is that some subjects may be unwilling to disclose such sensitive information on a questionnaire. Some subjects may not define their experiences as abusive or may not be willing to acknowledge these experiences in this kind of study. While at this point in the development of this there is no infallible way to assess the validity of retrospective reports of child maltreatment, it appears that if there is any distortion of memories, subjects are most likely to underreport the occurrence and extent of the abuse (Peters, Wyatt, & Finkelhor, 1986; Russell, 1986).

A comparison of different methodologies used in child abuse research suggests that the manner in which questions about child maltreatment are asked may influence the individual's willingness to respond (Peters et al., 1986). For example, single questions which ask the respondent

whether they have experienced "child abuse or molestation" tend to elicit underreporting of such events as the subject may not define abuse or molestation in the same way that the researcher does. Peters et al. (1986) suggest that questions regarding sexual abuse use a multi-item format that lists the specific behaviours that the researcher is interested in. These items may also act as triggers for memories not previously apparent to the subject. A preamble to a questionnaire that assures the subject of anonymity and confidentiality may also be useful in increasing the accuracy of responses when inquiring about sensitive issues such as child sexual abuse (Peters et al., 1986).

As mentioned earlier, the type of sample used will influence the results of studies of child maltreatment. Although randomized population surveys may result in the most generalizable results, they are usually the least cost-effective type of research strategy. Perhaps the next most useful sample in this field of research involves non-clinical, non-forensic groups of individuals. However, as pointed out by Finkelhor (1979a), studies of college students are not based on random samples as the subjects are more likely to be middle class, to be psychologically healthier, and possibly less likely to have been sexually victimized. At this point, it has not yet been demonstrated if the experiences of child physical abuse among college students varies significantly from the corresponding

experiences within the general population. Despite the somewhat restricted nature of the sample, studies have demonstrated that using university students as subjects for explorations of the long-term effects of child maltreatment can be fruitful. For example, numerous studies have indicated that many students are willing to answer sensitive items on anonymous questionnaires regarding their experiences of child sexual and physical abuse (e.g., Briere, Henschel, Smiljanich, & Morlan-Magallanes, 1990; Briere & Runtz, 1988b; Cole, 1986; Finkelhor, 1979a; Lanktree, Briere, Henschel, Morlan-Magallanes, & Smiljanich, 1990; Runtz, 1987; Urquiza, 1988; Urquiza & Crowley, 1986).

While studies of child maltreatment that use student populations and self-report questionnaire methods may be examining a select group of abused individuals and may also, by virtue of the methodology, be less able to elicit reports of maltreatment, Peters et al.'s (1986) review of the area indicates that in terms of cost-effectiveness, these studies can be very useful in the study of child maltreatment. Previous research has demonstrated that although child maltreatment is prevalent among samples of university students, and that it is associated with a variety of psychological symptoms, overall, these abuse survivors are functioning at a higher level than clinical samples of victims (Runtz & Briere, 1987). Clinical samples of victims are even more specialized and, therefore, less generalizable

than student samples. The present college sample, although presenting limitations to the generalizability of the results, offers the opportunity to study victimized individuals who are likely to be at the healthier end of the continuum of psychosocial adjustment. Thus, this study can serve as a beginning point in the study of successful coping strategies among a sample of less severely maltreated subjects.

Defining Child Abuse

To date, there has been little agreement on an appropriate definition of child maltreatment or abuse. As a general definition, Garbarino (1980) has suggested the following: "Child maltreatment consists of acts of omission or commission by parents or guardians that are judged by a mixture of community values and professional expertise to be seriously inappropriate and damaging to the child." (pg. 65). Although this definition is very broad, it does encompass some of the types of maltreatment that are thought to be particularly damaging to children and the two that are the focus of this study (i.e., sexual and physical maltreatment).

Defining Child Sexual Abuse

According to Finkelhor (1979a) "there is not yet in this field any generally accepted definition of sexual victimization" (pg. 54). Although it is generally agreed that sexual activity between adults and children invariably

victimizes the child due to the inability of the child to give informed consent (Finkelhor, 1979b), there is still debate regarding which elements of such activity are most essential to the definition of sexual abuse for the purpose of research.

There is great variety among the definitions of child sexual abuse that appear in the literature. The primary dimensions along which these definitions vary include: the upper age limit of the victim at the time of the abuse, the age difference between victim and perpetrator, relationship of perpetrator to victim, inclusion or exclusion of abuse by peers, severity of the abuse, and the types of sexual behaviours included (i.e., inclusion or exclusion of non-contact experiences like exposure).

Some studies have left the definition of abuse up to the subject by simply asking if the subject had ever been "sexually abused" (e.g., Kercher & McShane, 1984; Miller, 1976). However, the subjects' perception of whether or not they had been abused does not always correspond to the researcher's definition of sexual abuse. For example, some respondents deny having been victimized yet respond affirmatively to questions that would usually be indicative of child abuse (e.g., intercourse with an adult during childhood; Runtz, 1987). Therefore, it is essential that any useful definition of sexual abuse include a clear behavioural description of relevant sexual acts.

Some of the sexual behaviours that have been examined in studies of child sexual abuse have included genital fondling, oral, anal, and vaginal intercourse, exposure of an adult's genitals to a child, and the child's participation in or exposure to pornography and prostitution. As mentioned previously, multi-item questions regarding specific sexual behaviours experienced are most useful in accessing information regarding a wide range of early sexual experiences without relying on the subject's interpretation of those events (Peters et al., 1986).

In terms of the age of the victim and the age difference between victim and perpetrator, there is little agreement in the literature as to what constitutes child sexual abuse. For example, some researchers have used upper age limits for the child victim ranging from 12 (Finkelhor, 1979a; Fromuth, 1986) to 18 (Cole, 1986; Russell, 1983; Wyatt, 1985). Others have used age 14 (e.g., Briere & Runtz, 1988b; Runtz, 1987; Russell, 1983) or age 16 (e.g., Finkelhor, 1984). These somewhat arbitrary age limits are often accompanied by a specified age difference between the victim and perpetrator. For example, Finkelhor (1979a) and Fromuth (1986) required an age difference of five years for children aged 12 and under and an age difference of 10 years for those aged 13 to 16.

Only a few studies have separately measured sexual abuse occurring during adolescence (e.g., Finkelhor, 1979a;

Fromuth, 1986; Gidycz & Koss, 1989; Russell, 1983; Wyatt, 1985). This is a particularly relevant dimension to study given that some studies have found abuse during adolescence to be rated as more negative (e.g., Finkelhor, 1979a) or to be associated with greater symptomatology (e.g., Peters, 1988; Tsai et al., 1979) than abuse at an earlier age. On the other hand, other studies have found either the opposite relationship (Courtois, 1979; Meiselman, 1978) or no significant differences between age of abuse and later distress (e.g., Briere & Runtz, 1985; Langmade, 1983).

Although the relative importance of age of abuse onset has not yet been settled, there is evidence to suggest that sexual abuse during adolescence is, in itself, a phenomenon worthy of study. For example, Gidycz and Koss (1989) determined that 55% of high school girls had been victimized at an average age of 13.4 years and that most of these assaults (75%) involved acquaintances, friends, or boyfriends. Those teenaged girls who had been sexually victimized had significantly higher anxiety and depression than nonvictims (Gidycz & Koss, 1989).

As suggested by Peters et al. (1986) it is preferable to gather a broad range of information that can later be analyzed in smaller sections than to limit definitions too severely before it has been clearly demonstrated which elements of child sexual abuse prove to be the most essential to its definition. Accordingly, the current study

will examine child sexual abuse that occurs before age 15 with someone five or more years older than the child as well as the sexual abuse of adolescents aged 15 to 18 (occurring with an adult 10 or more years older or with someone of any age if the behaviour was nonconsensual). This allows for the separate measurement and analysis of sexual abuse during childhood and during adolescence.

Defining Child Physical Maltreatment

To an even greater extent than with the definition of sexual abuse, there is disagreement within society and among researchers regarding what behaviours constitute actual physical abuse. Whereas any sexual activity between an adult and a child is prohibited by law, the use of physical contact (e.g., spanking) for the purpose of punishment or discipline is generally acceptable behaviour when it occurs within the family (Berliner, 1988; DeMause, 1974; Graziano & Namaste, 1990; Hyman, 1988; Straus, 1983). It is often difficult to clearly differentiate between physical punishment and physical abuse of children for the purposes of research. This is especially the case given the apparent frequent use of physical punishment by parents (see Straus, 1983, below).

Within a national probability sample, Gelles and Straus (1987) found that 55% of subjects reported being slapped or spanked by their parents while 31% were pushed, grabbed, or shoved. Similarly, 20% of families reported use of an

object in spanking their children (Gelles, 1980). Overall, Straus (1983) reported that 97% of American children are physically punished. Among college students, 93% reported having been spanked as children (Graziano & Namaste, 1990) and 45% had been "hit hard" by a parent without experiencing any of the more severe indicators of abuse such as beatings or injury (Runtz, 1987). This prevalent lower end of the continuum of physical violence that includes "socially acceptable" forms of violence such as spanking, slapping, and hitting children for the purpose of discipline has been referred to as "subabusive violence" (Graziano & Namaste, 1990) in order to distinguish it from the more severe forms of violence that are more readily identified as child abuse.

The widespread acceptance of the use of physical violence against children is evident in the finding that 85% of college students believed that parents have the right to spank their children and 83% indicated that they planned to spank their own children in the future (Graziano & Namaste, 1990). As stated by Graziano & Namaste (1990), "the identification of where along the continuum proper discipline becomes abuse depends on social definitions that vary with the values of society, among individuals and between groups" (p.450). According to Berliner (1988), many "acts of minor violence that would be crimes if committed on an adult are legal when they occur as discipline" of a child.

Among those who experienced some form of physical discipline by their parents during childhood are probably some who would qualify by community and legal standards as victims of child abuse. For instance, two studies reported that 11% of subjects incurred welts or bruises as the result of parental physical discipline or violence (Graziano & Namaste 1990; Straus & Gelles, 1988). Similarly, 27% of college students reported being injured (i.e., bruises, cuts, or need for medical treatment) by their parents in the course of being hit, beaten, kicked, or pushed down stairs (Runtz, 1987).

A number of studies have attempted to differentiate between appropriate levels of physical punishment and child abuse. Although injury is often used as a main criterion in the definition of physical abuse, behaviours that have a high likelihood of resulting in injury are also considered by some researchers to be abusive (e.g., Straus et al., 1980). For example, Cole (1986) defined physical abuse of children as "frequent and/or severe physical punishment" that occurred before age 18. This included being "hit with an object or when not warranted more than once or twice, being physically punished in excess of 3-4 times per month, or receiving injuries resulting from physical force". Similarly, Runtz (1987) defined child physical abuse as being "beaten", "kicked", "pushed down stairs" or being injured by either parent (as a result of the above

behaviours) before age eighteen.

The Straus and Gelles team of researchers approached the definition of child physical abuse in a similar manner for their 1975 and 1985 surveys (Straus et al., 1980; Gelles & Straus, 1987). Violence was defined as "an act carried out with the intention, or perceived intention of causing physical pain or injury to another person." Abuse was limited to "those acts of violence that had a high probability of causing injury to the person (an injury did not actually have to occur)". In the case of "very severe violence" (which was equivalent to child abuse for these researchers) relevant items from the Conflict Tactics Scale included: "kicked, bit, or hit with a fist"; "beat up"; "threatened with knife or gun"; and "used a knife or gun".

In a study of child abuse beliefs among over 500 professionals (e.g., physicians, teachers, social workers), Gelles (1982) found that the greatest agreement regarding whether a particular act could be considered as child abuse was reached when the acts involved sexual molestation, wilful malnutrition, and wilfully inflicted trauma. The greatest disagreement occurred if the act was the injury of a child who was struck too hard without the presence of an obvious intent to injure. Gelles (1982) concluded that in the minds of most professionals, child abuse is present when there is clearly identifiable harm or injury plus evidence of clear intent to harm.

Given the difficulty inherent in determining whether a particular act is abusive or not, some researchers have turned away from characterizing physical abuse as either present or absent. For example, Briere and Runtz (1988a & 1990b) measured child physical maltreatment among college students as a total frequency score of "nonverbal parental behaviours which are typically associated with physical pain and/or fear of physical injury." The items comprising this continuously measured scale of physical maltreatment included: "slap you", "hit you really hard", "beat you", "punch you", and "kick you". The frequency scale ranged from "never" to "more than 20 times a year" in the "worst year" prior to age 15. Although the behaviours at the lower end of the scale do not necessarily constitute abuse, the upper values on this scale likely capture a number of cases of child abuse (e.g., those who reported being beaten or punched more than 20 times per year).

Physical maltreatment of children was measured in a similar fashion in the present study. That is, maltreatment is conceptualized as a continuous rather than a dichotomous variable. This type of measurement is perhaps better suited to the study of physical maltreatment and abuse as no clearly distinguishable cut-off point between punishment and physical abuse has yet been determined. For this reason, the term "child physical maltreatment" will be used to refer to physical treatment that includes both physical punishment

of children and more severe acts of child physical abuse.

Correlates of Child Maltreatment

A major endeavour in the field of child abuse research has been the task of determining the psychological and behavioural impact of the various forms of child maltreatment. Although it cannot be said with absolute certainty that the symptoms associated with child maltreatment are the direct result of these events, it has become customary in this body of literature to refer to the sequelae of such treatment as "effects" due to the strength and consistency of the relationship between child maltreatment and later symptomatology. It should be kept in mind that for the majority of studies, these "effects" are, at most, simply correlates of child maltreatment.

Although numerous studies have addressed the apparent sequelae of childhood abuse, the most comprehensive reviews of the literature are those by Browne and Finkelhor (1986a & b) and Alter-Reid, Gibbs, Lachenmeyer, Sigal, and Massoth (1986) for sexual abuse and Gelardo and Sanford (1986), Lamphear (1985), and Ammerman, Cassisi, Hersen, and Van Hasselt (1986) for physical abuse. As outlined in these reviews, both clinical and empirical studies have repeatedly demonstrated an association between both types of child maltreatment and a variety of long-term negative outcomes. In general, it has been determined that women with a sexual

abuse history are twice as likely to have poor mental health as women who have not been abused (Bagley & Ramsay, 1985/86). It has been noted that the rate of child sexual abuse is far greater than expected among female psychiatric outpatients and inpatients (Briere & Zaidi, 1989; Carmen, Rieker, & Mills, 1984; Herman, 1986) as well as among male psychiatric outpatients (Swett, Surrey, & Cohen, 1990). Similarly, physically abused children have also been found to be at risk for a variety of psychosocial problems (Kazdin, Moser, Colbus, and Bell, 1985) and to appear with greater frequency within adolescent psychiatric populations (Hart, Mader, Griffith, & deMendonca, 1989).

In a comprehensive review of the area of victimization, McCann, Sakheim, & Abrahamson (1988) outlined five major categories of psychological response patterns common to victims of all types (i.e., victims of rape and sexual assault, child sexual and physical abuse, battery, and victims of war, crimes, and catastrophes). The five dimensions of response patterns include: a) emotional responses (e.g., fear, anxiety, depression, and self-esteem disturbances); b) cognitive response patterns (e.g., perceptual disturbances such as depersonalization and dissociation); c) biological response patterns (e.g., physiological hyperarousal and somatic disturbances); d) behavioural responses (e.g., aggression, suicidal behaviour, and substance abuse); and e) interpersonal response patterns

(e.g., sexual problems, relationship problems, revictimization, and victim becomes victimizer). While it is apparent that there are many similarities in the outcomes of a number of different types of victimization, each also has its unique features. Therefore, it is most useful to differentiate between different types of child maltreatment rather than to combine them into a single group when attempting to assess their impact. The following studies indicate that symptoms belonging to each of the above five categories have been found among adults who were sexually or physically maltreated as children.

Sequelae of Child Sexual Abuse

While no unique symptom pattern has been identified among those who have experienced child sexual abuse (Finkelhor, 1990), a number of difficulties have been found to appear more often among victims of child sexual abuse than among the general population. Studies have determined that those with a history of child sexual abuse have particular difficulty in the following major areas of functioning: a) psychological and emotional functioning: depression, anxiety, sleep disturbance, sexual difficulties, anger, tension, and post-traumatic stress (Briere & Runtz, 1987, 1988b, 1989, 1990a; Elliot & Briere, 1990), dissociation (Briere & Runtz, 1988b; Brown & Anderson, 1991; Ogata et al., 1990), somatic symptoms (Cunningham, Pearce, &

Pearce, 1988; Gilbert, 1988; Morrison, 1989; Rimsza, Berg, & Locke, 1988) and pelvic pain (Lanktree et al., 1990), low self-esteem (Bagley & Ramsay, 1985/86; Herman, 1981), guilt and self-blame (Gelinas, 1983; Herman, 1981), personality disorders (Briere & Zaidi, 1989; Bryer, Miller, Nelson, & Krol, 1986; Gelinas, 1983; Sheldon, 1988), and increased anger, paranoid ideation, and obsessive-compulsive symptoms (Murphy et al., 1988); b) social functioning: fewer friends in childhood (Oates, Forrest, & Peacock, 1985), lack of social competence, greater interpersonal aggression, and social withdrawal during childhood (Friedrich, Urquiza, & Beilke, 1986), lack of adequate social supports in adulthood (Runtz, 1987), interpersonal sensitivity (Briere & Runtz, 1988b), poor social adjustment and feelings of isolation (Harter, Alexander, & Neimeyer, 1988), interpersonal difficulties (Courtois, 1979), revictimization (Briere, Conte, & Sexton, 1989; Runtz & Briere, 1988; Runtz, 1987; Russell, 1986), and sexual dysfunction (Becker, Skinner, Abel, & Treacy, 1982; Jehu & Gazan, 1983; Jehu, 1988; McGuire & Wagner, 1978); and c) behavioural functioning: suicidal ideation, self-destructive behaviours (Bagley & Ramsay, 1985/86; Briere & Runtz, 1986; Briere & Zaidi, 1989; Sedney & Brooks, 1984), and self-injurious behaviour (Briere et al., 1990), eating disorders (Root, Fallon, & Friedrich, 1986), substance abuse (Briere & Runtz, 1987; Peters, 1984), unusual sexual behaviour in childhood (Friedrich et al.,

1986; Kolko, Moser, & Weldy, 1988; Thuringer, 1990), and prostitution (James & Meyerding, 1977; Silbert & Pines, 1981). Despite these findings, some studies have failed to find significant differences between sexually abused and nonabused groups of children with regard to behaviour problems (e.g., Cohen & Mannarino, 1988; Friedrich, Einbender, & Luecke, 1983).

While the above research suggests that problems in nearly every area of psychosocial adjustment have been found in association with child sexual abuse, there are numerous methodological difficulties within this literature. For example, many of these studies have failed to use appropriate control groups, have relied on small sample sizes or case studies, have used inappropriate measures of abuse or outcome variables (especially when studying children), have not used multivariate statistical techniques, or have sampled from very select populations such as therapy patients or populations of reported and validated cases of child abuse. Research in this area is particularly challenging due to the correlational nature of the relationship between child maltreatment experiences and adult adjustment variables. Despite their methodological difficulties, the above studies are suggestive of some of the likely relationships existing between sexual abuse and later functioning.

Some of the better designed studies have, within the

confines of these limitations, determined that some aspects of the sexual abuse situation are more consistently predictive of harm than are others. For example, Russell (1986) found that victims who experienced penetration were more traumatized than those who experienced fondling of the genitals or unwanted kissing in the absence of penetration. Similarly, Bagley and Ramsay (1985/86) also found penetration to be highly predictive of psychological impairment among abuse survivors. On the other hand, non-contact types of abuse (e.g., exposure) have been found to be less likely to be related to later psychological distress (Peters, 1988; Runtz, 1987). From these studies it is apparent that the degree of physical invasiveness of the early sexual contact contributes to the perceived abusiveness of the experience.

Other important variables that have been found to contribute to the apparent negative impact of sexual abuse include: longer duration of the abuse (Elliot & Briere, 1990; Friedrich, Urquiza, & Beilke, 1984; Runtz, 1987; Russell, 1986; Tsai et al., 1979); age of first abuse experience (Elliot & Briere, 1990; Murphy et al., 1988); incest by a parent (Elliot & Briere, 1990; Russell, 1986); use of force (Bagley & Ramsay, 1985/86; Finkelhor, 1979a; Fromuth, 1983; Russell, 1986); co-existing physical abuse (Briere & Runtz, 1986, 1989; Conte et al., 1989, Aug.); multiple perpetrators (Briere & Runtz, 1986; Conte et al.,

1989, Aug.); and particularly violent abuse (Conte et al., 1989, Aug.). Therefore, certain types of sexual abuse may be more traumatic than others even though the passage of time, or simply the overall impact of having been abused at all, may obscure some differential abuse effects (Elliot & Briere, 1990).

While few studies have examined the long-term effects of child sexual abuse on men, it does appear that men experience problems in adjustment and self-concept similar to those of victimized women (Briere, Evans, Runtz, & Wall, 1988; Conte, Briere, & Sexton, 1989; Swett, Surrey, & Cohen, 1990; Urquiza, 1988; Urquiza & Crowley, 1986). Along with these similarities, however, are also a number of differences (Vander Mey, 1988). For example, it has been shown that males view their abuse experience less negatively than do women despite the fact that they do not differ significantly from women in terms of overall adjustment (Conte et al., 1989, Oct.; Urquiza & Crowley, 1986).

According to Urquiza and Crowley (1986) male sexual abuse survivors tend to cope with their abuse through externalization (e.g., desire to hurt others) while females are more likely to internalize their distress through depression. In a comparison of male and female psychiatric inpatients, it was found that men with childhood abuse histories were more likely to have abused others and to have had more criminal involvement than women with a similar

history (Carmen, Rieker, & Mills, 1984). Similarly, Conte et al. (1989, Oct.) determined that, as teenagers, abused males were more likely than females to report "acting-out" behaviours such as sexually abusing others, substance abuse, excessive masturbation, problems with school and police, sexual preoccupation, and fantasies of aggression. It is possible, however, that some of these differences can be accounted for by the fact that men are also more likely than women to abuse others regardless of child abuse history (Browne & Finkelhor, 1986; Salter, 1988).

One study of abused male and female children indicated that sexual abuse had a more pervasive negative impact on boys than on girls (Pyle & Goodman, 1987). It should be noted, however, that this sample involved children whose cases had been accepted for prosecution. The sexual abuse experienced by these boys may have involved only the most serious cases as it is thought that the sexual abuse of boys may be underreported to a greater extent than is the abuse of girls (Finkelhor & Baron, 1986). While it has also been suggested that males experience greater shame and self-blame from feeling that they should have been able to protect themselves from sexual victimization (Bolton, Morris, & MacEachron, 1989), this has yet to be demonstrated empirically.

Overall, however, detailed study of the impact of child sexual abuse on male survivors has been sparse and requires

further exploration. In terms of sex-differences in the characteristics of sexual abuse, boys tend to be abused at a younger age than girls, are more likely than girls to be victimized by non-family members, and experience more physical abuse in conjunction with sexual abuse than do girls (Finkelhor, 1984). It has also been found that males were more likely to be sexually abused by their stepfathers and were subjected to more threats and greater force than were girls (Pierce & Pierce, 1985). Due to the relative lack of information regarding the impact of sexual abuse on males, the present study compares male and female subjects on all maltreatment and adjustment variables.

Sequelae of Child Physical Maltreatment

Research in the area of child development has contributed significantly to the understanding of the impact of maltreatment on the developmental process in children. Crittenden and Ainsworth (1989) have noted that the outcomes of maltreatment are developmental in nature, as they affect different aspects of functioning at different points in time. Rather than arresting development at any particular stage, maltreatment appears to have an influence over the direction of future development (Crittenden & Ainsworth, 1989), thus putting the maltreated child at even greater disadvantage.

The developmental studies show that relative to matched, nonmaltreated children, physically maltreated

children tend to demonstrate insecure and impaired attachment as infants (Aber & Allen, 1987; Carlson, Cicchetti, Barnett, & Braunwald, 1989; Cicchetti, Toth, & Bush, 1988; Crittenden & Ainsworth, 1989; Egeland & Sroufe, 1981; Schneider-Rosen, Braunwald, Carlson, & Cicchetti, 1985; Schneider-Rosen & Cicchetti, 1984), poor performance on measures of cognitive maturity (Barahal, Waterman, & Martin, 1981), poor language performance (Cicchetti & Beeghly, 1987), impaired cognitive control functioning (Rieder & Cicchetti, 1989), and less "secure readiness to learn" and greater outer directedness (Aber, Allen, Carlson, & Cicchetti, 1989).

As summarized by Aber et al. (1989), studies of attachment and maltreated infants and toddlers have shown that these children are "less able to derive security and comfort from their primary caregiver and consequently are less able to competently explore the environment" (pg. 609). Crittenden and Ainsworth (1989) pointed out that child maltreatment contributes to anxious attachment, internal conflicts in the child, development of either a negative, resistant or compulsively compliant way of coping with the parent, and disturbances in social relationships with peers and adults. It appears that secure attachment leads to high self-esteem and self-efficacy, which both serve as important protective factors for the child (Main, Kaplan, & Cassidy, 1985). As secure attachment appears to be an important

factor for normal development in a number of areas (Aber & Allen, 1987), impairment of early attachment can have far-reaching effects both during childhood and adulthood. In particular, it has been suggested that the disruption in social relatedness that is linked to problems in early attachment may contribute to the intergenerational transmission of child abuse (Kaufman & Zigler, 1989).[1]

Perhaps as a consequence of the disrupted development evident in maltreated children, studies have found a number of behavioural and psychiatric problems to be common among physically maltreated children. For example, in a study of the immediate impact of the physical maltreatment of children, Kinard (1980) compared a group of physically abused children to a nonabused control group and found that the abused children fared worse in each of the following areas of adjustment: self-concept, aggressive behaviour, socialization with the peer group, establishment of trust in people, and separation from the mother. Similarly, Kazdin, Moser, Colbus, and Bell (1985) found that physically abused child inpatients were more depressed, had lower self-esteem, and greater negative expectations toward their futures than their nonabused counterparts. Allen and Tarnowski (1989) replicated these findings and noted that the physically abused children also showed heightened externality.

---

[1] Kaufman and Zigler (1989) estimated a 30% $\pm$ 5% transmission rate of physical abuse from one generation to the next.

In comparison to nonabused children, physically abused children have been found to be more aggressive (Fatout, 1990; Friedrich & Einbender, 1983; George & Main, 1979; Monane, Leichter, & Lewis, 1984), to have decreased cognitive ability (Friedrich et al., 1983), to show less competence in peer group interactions (Howes & Espinosa, 1985), to have distorted perceptions of their own competence (Vondra, Barnett, & Cicchetti, 1989), to show greater internalizing and externalizing behaviour problems on the CBCL (Jaffe, Wolfe, Wilson, & Zak, 1986), and to be at greater risk for conduct disorders (Livingston, 1987). It has also been determined that physically abused children have fewer friends (Oates, Forrest, & Peacock, 1985), are more nonconforming (Kinard, 1980), have lower self-esteem and are less prosocial (Kaufman & Cicchetti, 1989), and show greater limitations in interpersonal problem-solving ability (Haskett, 1990) than nonabused children.

Children with a history of maltreatment also tend to be overrepresented in psychiatric settings. For example, in a study of psychiatric inpatient adolescents, it was found that 55% had a history of either physical or sexual abuse (Hart et al., 1989). This finding of a high percentage of adolescent psychiatric inpatients with a history of victimization is consistent with similar findings among inpatient adults (e.g., Briere & Zaidi, 1989; Carmen et al., 1984; Herman, 1986). Within these inpatient settings, there

are also apparent differences between maltreated and nonmaltreated youths. For example, in comparison to the nonabused inpatients, abused children (sexual and physical abuse combined) had greater drug abuse, more symptoms of distress, more interpersonal problems, lower self-esteem, and a higher degree of self-destructiveness (Hart et al., 1989). Similarly, among adolescents in a residential chemical dependency treatment center, those with a history of physical and/or sexual abuse were more likely than those without an abuse history to demonstrate acting out behaviour, sexual promiscuity, running away, and legal involvement (Cavaiola & Schiff, 1988). Wolfe and Mosk (1983), however, found that physically abused children and nonabused children from a child welfare agency had similarly high levels of behaviour problems relative to a nonabused community sample of children.

According to Cicchetti and Rizley (1981), although the outcomes of maltreatment differ at different ages, there is developmental coherence across time periods. This suggests that particular areas of difficulty that exist for the maltreated child during childhood would be the most likely areas of difficulty to continue into adolescence and adulthood. It is apparent in comparing the literatures of immediate and long-term impacts of maltreatment, that there are many similarities in outcome from childhood to adulthood.

The studies that have explored the long-term effects of child physical abuse have found that this form of maltreatment is correlated with later low self-esteem and sexual problems (Cole, 1986), pelvic pain (Lanktree et al., 1990), bulimia (Bailey & Gibbons, 1989), overall severity of psychiatric symptomatology (Briere & Runtz, 1988a; Bryer, Nelson, Miller, & Krol, 1984; Chu & Dill, 1990; Cole, 1986; Runtz, 1987; Schaefer, 1988; Surrey, Sobieraj, & Hollyfield, 1988; Swett, Surrey, & Cohen, 1990), dissociation (Chu & Dill, 1990; Sanders & Giolas, 1991), borderline personality disorder (Brown & Anderson, 1991), suicidal behaviour (Briere & Runtz, 1988a; Brown & Anderson, 1991) and self-injurious behaviour (Briere et al., 1990), substance abuse (Brown & Anderson, 1991; McCord, 1983) and alcoholism (Downs, Miller, & Gondoli, 1987), aggression toward others (Briere & Runtz, 1990b; Pollock et al., 1990), antisocial behaviour (Pollock et al., 1990) and a tendency to abuse their own children (Egeland & Jacobvitz, 1984; Kaufman & Zigler, 1989).

Perhaps one of the most frequently studied topics has been the relationship between physical abuse during childhood and the development of delinquency (Bolton & Reich, 1977; Brown, 1982; Lewis, Mallouh, & Webb, 1989) and adult criminal behaviour (Kroll, Stock, & James, 1985; McCord, 1983; Pollock et al., 1990; Singer, 1986; Widom, 1989b). According to Rivera and Widom (1990) childhood

victimization (physical abuse, sexual abuse, and neglect combined) increases the overall risk for violent offending, with a particular increase in risk for males and blacks. In reviewing the literature, Lewis et al. (1989) concluded that while a high proportion of violent delinquents have a history of severe abuse in childhood, only about 20% of abused children actually become delinquent. This suggests that child maltreatment may be only one of a number of factors that contribute to the development of antisocial behaviour.

Farrington (1989) determined that for males at age eight, poor child rearing (including harsh and authoritarian discipline and poor supervision) was an important predictor of later aggression and violence. In addition to poor child rearing, five other predictors of later violence were also important: economic deprivation, family criminality, hyperactivity, school failure, and early antisocial behaviour (Farrington, 1989). In addition to these environmental factors, it is has been established that the more severe the abuse, the greater the likelihood of delinquency and aggression (Farrington, 1978; Lewis, Shanok, Pincus, & Glaser, 1979; Welsh, 1976).

Another area of concern regarding the possible influence of a violent childhood involves the development of subsequent attitudes towards others in similar situations. Ginsburg, Wright, Harrell, and Hill (1989) showed that young

adults who had been physically abused as children showed significantly diminished concern for victims in hypothetical situations of sexual and physical abuse. The authors also found this "desensitization effect" to increase along with the severity of the physical abuse experienced (Ginsburg et al., 1989). It is possible that this apparent deficiency in empathy may influence the abused individuals' behaviour toward their own children. In this way such attitudes could contribute to the intergenerational transmission of violence that has been noted by some researchers. It is important to remember, however, that as will be seen with the relationship between maltreatment and later adjustment, there is the potential for a number of variables to mediate the transmission of abuse from generation to generation (e.g., higher SES, good social supports, fewer stressful events, etc.; Kaufman & Zigler, 1989). This is evident in the finding that while many child abusers were also beaten by their own parents, only a small proportion of abused children actually grow up to be similarly abusive (Widom, 1989a).

Factors Influencing the Impact of Child Maltreatment

While it appears that many individuals abused as children appear to demonstrate problems in later functioning, not all abused children demonstrate disturbance later in life (Wolfe, Wolfe, & Best, 1988). In fact, Browne and Finkelhor (1986b) concluded that as few as one fifth of

sexual abuse victims suffer from serious psychological disturbance. A community study by Herman, Russell, and Trocki (1986) determined that while a majority of women with a history of incest reported that they had been upset by their incest experiences, about half said they had recovered well from their trauma. Similarly, a proportion of children who were physically abused or neglected appear to demonstrate resilience and positive adjustment (Farber & Egeland, 1987). According to Wolfe et al. (1988), the impact that child abuse will have on the child is determined by the extent of co-existing stressful life events and the availability of supports to assist in the child's recovery.

As pointed out by Browne and Finkelhor (1986b), there is potential danger in researchers' preoccupation with long-term negative effects of abuse: child abuse should be recognized as a serious problem regardless of the demonstration of long-term effects. Similarly, the presence of resilience among maltreated children does not suggest that child abuse is not harmful, but rather that certain characteristics of the individual and their environment may combine to influence adjustment (see Conte et al., 1989, Aug.). The variety of responses to child abuse is likely associated with variability in the nature of the abuse, individual differences in the children, family differences (Finkelhor, 1984), and variability in the intervening factors occurring since the abuse. Similarly, the presence

of parental belief and support following disclosure of sexual abuse (Everson, Hunter, Runyan, Edelsohn, & Coulter, 1989) and perceptions and attributions regarding the abuse (Gold, 1986) are also important factors in determining the later impact of child sexual abuse.

Researchers are only beginning to search for the social, personal, and environmental factors that may mitigate against the negative effects of child maltreatment. In the general literature on stress and coping, the factors which appear to mediate life stress have been conceptualized both as "protective factors" (Garmezy, 1985; Rutter, 1987) and as "generalized resistance resources" Antonovsky (1979). Garmezy (1985) has delineated three broad sets of variables that serve as protective factors for children in general: 1) personality characteristics such as self-esteem and self-efficacy; 2) family cohesion and the absence of discord; and 3) the availability of external support systems that encourage and reinforce a child's coping efforts. Each of these may be relevant to the ways in which victims of child maltreatment adjust later in life. Protective factors that might moderate the potentially negative sequelae of child maltreatment likely include personality characteristics (such as self-esteem), family characteristics (such as lack of conflict), social support, characteristics of the maltreatment, and various coping styles.

A comprehensive conceptualization of the process of

coping as it relates to child sexual abuse has been outlined by Friedrich (1990). In his model of coping Friedrich has incorporated a number of factors preceding, during, and following the abuse that interact to contribute to the later functioning of the child. These factors include: a) functioning prior to abuse: risk factors which increase a child's vulnerability to abuse and protective factors which contribute to positive adaptation to stress; b) nature of the trauma: traumagenic factors (traumatic sexualization, stigmatization, betrayal, and powerlessness) (Finkelhor & Browne, 1985) and presence of multiple stressors; c) initial response by child and family: adaptiveness or maladaptiveness of initial coping resources and responses (e.g., degree of belief and support, locus of control); and d) longer-term reactions: degree of fixation of development, triggering events, long-term distress (e.g., PTSD, dissociation). This model suggests that a multiplicity of events and characteristics of the child, family, and environment combine to produce the variability in functioning seen among maltreated children as well as adults maltreated as children.

A body of literature has developed that has been devoted to the study of the resilient child who displays competence despite being at risk for developing serious psychological disorders by virtue of social, economic, or environmental deprivation or hardship (e.g., Anthony &

Cohler, 1987; Garmezy, 1983; Rutter, 1987; Werner & Smith, 1982). The resilient child is not simply one who survives early hardships unscathed, but is one who undergoes a severe stressor or trauma yet achieves relatively positive mental health.

In a longitudinal study, Farber and Egeland (1987) determined that each of four types of abuse, physical abuse, verbal abuse, psychological unavailability of parents, and neglect had damaging consequences for children. Among these children, however, were a proportion who displayed competence and low vulnerability to the effects of maltreatment. At twelve months of age, 54% of the abused children were considered competent versus 66% of the control group of non-abused or neglected children. This proportion of competent children decreased over time for both groups yet the magnitude of the decline was greatest for the abused group for which only 22% evidenced competence at the preschool level (versus 46% for the controls). The factors that contributed to the development of competence in this group of children included a history of secure attachment to a parent, the presence of a male partner in the home, and the mother's responsiveness and emotional support of the child.

In their longitudinal studies of disadvantaged children in Kuaui, Werner & Smith (1982) also determined that the presence of a supportive and nurturant adult during

childhood is central to the children's later adjustment. While they found that a positive relationship with the primary caretaker was of particular importance during the first year of life, emotional support from informal sources outside of the family were also related to resilience in children and adolescents (Werner & Smith, 1982). In fact, different variables appear as protective factors at different stages of development: i.e., biological and maternal health factors were of greatest importance in early childhood and by adolescence, self-esteem and a network of supportive friends, kin, and others facilitated resilience.

In Zimrin's (1986) longitudinal examination of abused children, the following protective factors were associated with good psychological adjustment in adulthood: taking an active rather than a passive, yielding approach to coping, being able to positively evaluate personal resources, and having a significant relationship with an adult outside the family. However, the role of the stressor remains important as the greater the disadvantage and cumulative stress, the greater the number of protective factors that are needed in order to assure a positive outcome (Werner & Smith, 1982).

Mrazek and Mrazek (1987) outlined twelve characteristics or skills that may foster resilience among abused children. These include the following: rapid responsivity to danger, precocious maturity, dissociation of affect, information seeking, formation and utilization of

relationships for survival, positive projective anticipation, decisive risk taking, the conviction of being loved, idealization of an aggressor's competence, cognitive restructuring of painful experiences, altruism, and optimism and hope. Mrazek and Mrazek (1987) point out that while these coping responses may be effective for survival they may become maladaptive if overused or not given up when the stressor no longer exists.

While it appears that protective factors serve different purposes at various stages of development (Werner & Smith, 1982), most of the existing studies have been limited to factors existing prior to age 18. Studies of stress mediation in adults have tended to be limited to social, environmental, and personal factors present during adulthood. In this literature, these factors have often been referred to as coping styles. Therefore, the following is an examination of coping factors present in adulthood which appear to show some relation to the protective factors examined in the above studies.

Stress and Coping

According to Burt and Katz (1988), coping is comprised of efforts made by an individual in response to a perceived threat or stressful event. These efforts are aimed both at reducing the anxiety created by the threat and at reducing the interference that the situation has on one's ability to

function. Thus, coping serves the dual functions of problem solving and emotional regulation (Folkman, Schaefer, & Lazarus, 1979). Lazarus and Folkman (1984) view coping as an effort to manage stressful demands, and state that coping is best seen as a process rather than simply as an outcome. While an individual may prefer to use a particular method of coping, the process of coping is not necessarily static as the response employed is likely to change with the demands of the situation. Hence, coping strategies may vary from individual to individual and with the type of stress (or maltreatment) experienced.

A transactional model of stress and coping has been developed by Lazarus and his colleagues (Lazarus & Folkman, 1984; Lazarus & Launier, 1978). The model defines three major facets of the coping process: focus, mode, and functions of coping. Coping efforts can have two alternative instrumental foci: they can be directed toward the self, the environment, or both. The functions of coping include attempts to alter the stressful person-environment relationship (i.e., problem-focused coping) or to control the emotional reaction arising from that relationship (i.e., emotion-focused coping). Coping modes include: information seeking, direct action, inhibition of action, and intrapsychic modes of coping. Each of these modes are included within problem-focused and emotion-focused functions of coping and can be directed to either

the self or the environment.

As discussed by Lazarus and Folkman (1984), problem-focused coping involves attempts at problem-solving using strategies that focus either on the environment or that are directed inward. The former involves strategies for altering environmental pressures and barriers while the latter involves responses that are directed at motivational or cognitive changes (e.g., reducing ego involvement and finding alternative means of gratification). Emotion-focused forms of coping consist of cognitive processes directed at lessening emotional distress (e.g., avoidance, minimization, or distancing) or at discharging it (e.g., self-blame and venting of emotion).

In addition to problem-focused and emotion-focused coping, Billings and Moos (1981) examined three "method of coping" strategies: active-behavioural, active-cognitive, and avoidance coping. Active-behavioural coping includes attempts to manage one's appraisal of the stressful event while active-behavioural coping attempts to deal directly with the problem. Avoidance refers to attempts to deny or actively avoid confronting the problem or attempts to reduce emotional tension by anxious behaviour such as increased eating or smoking. While there appears to be some overlap between the "focus of coping" and "method of coping" formulations, the most important aspects of coping behaviour appear to lie on two primary dimensions: an active/passive

dimension (i.e., active problem solving versus avoidance) and a cognitive-emotional/behavioural dimension (i.e., cognitive reappraisal versus behavioural changes).

Lazarus and Launier (1978) suggested that in active coping, the individual attempts to alter the stressful situation itself, while in passive coping, he or she alters the emotional response to the crisis (e.g., by using avoidance or denial). While denial of the seriousness of the event may allow the person to reduce anxiety and other negative emotions to a tolerable level, this strategy may not be effective in the long-term. In the study by Billings and Moos (1981), the use of active approaches to dealing with an event and fewer attempts to avoid dealing with it were found to be associated with lower levels of stress, hence, indicating the effectiveness of a direct approach.

Horowitz's (1976) work on the posttraumatic stress response has also addressed the issue of denial and avoidance in coping. In addition to denial or emotional numbing, intrusive thoughts and compulsive repetitions of thoughts or feelings related to a stressful event are thought to be characteristic responses to major stress. The process of recovery involves the use of these emotion-focused ways of coping (i.e., repetition and avoidance) in alternation with each other as the individual struggles to cope with the stressful event. As the individual recovers, the presence of intrusive thoughts and the need to avoid the

anxiety associated with them, will normally decrease.

As the previously cited research demonstrates, cognition plays an important role in many of the formulations of coping. It has been posited that cognitive factors play an important role in the way an individual interprets stressful life events, hence, mediating their impact (Hammen, 1985). Two major theories have been developed to explain how cognition influences depression: Beck's theory of cognitive distortions (Beck, 1967, 1976; Beck, Rush, Shaw, & Emery, 1979) and Seligman's theory of causal attributions for negative events (Seligman, 1975; Abramson, Seligman, & Teasdale, 1978; Seligman, Abramson, Semmel, and von Baeyer, 1979).

Beck contends that mood is a function of beliefs and that certain self-defeating patterns of thought (i.e., the cognitive triad of negative thinking about the self, the situation, and the future) can lead to feelings of depression. While the literature indicate that depressed persons evaluate themselves and their performances more negatively than do nondepressed persons there is also evidence to support the hypothesis that mood influences thought and that the two are probably interactive (Hammen, 1985).

The attributional theory of Seligman et al. (1979) has also addressed the issue of cognitive mediation of depression. The theory states that an individual's causal

attributions (i.e., an internal, stable, and global attributional style for negative events) are predictive of her/his low self-esteem, sense of helplessness, and depression. Hammen (1985) cites evidence to suggest that there is little empirical support for the attributional formulation as an adequate causal theory of depression as attributions appear to be situation specific and unstable. As with Beck's theory, evidence suggests that depression may influence attributional cognition rather than the reverse (Cochran & Hammen, 1984).

In her review, Hammen (1985) suggested that while cognition is likely to be related to depression in general, the major theories in the area have focused on only a few of many potentially important cognitive factors. Similarly, these theories have focused primarily on the influence of cognitions on depression, with little attention to other emotions (such as anxiety, fear, etc.) that may be equally important long-term sequelae of child maltreatment. Hammen (1985) suggests that additional cognitions that would be relevant for further research include self-efficacy, coping capabilities, attributions regarding one's ability to cope, self-concept, self-schemas, perceived uncertainty in one's life as a result of the negative event, and control over dealing with stressors. As some of these factors appear to serve as protective factors in disadvantaged (Werner & Smith, 1982) and abused children (Zimrin, 1986), they are

particularly relevant to the current study.

There have been a few studies that have explored the contribution of cognitive styles to the adjustment of victims of violence and traumatic events (e.g., Janoff-Bulman & Frieze, 1983; Silver, Boon, & Stones, 1983; Wortman, 1983). This has been examined through the study of self-blame (Meyer & Taylor, 1986; Miller & Porter, 1983), learned helplessness (Peterson & Seligman, 1983), attributional style (Gold, 1986; Runtz, 1987), locus of control (Gold, 1986), the "search for meaning" (Silver et al., 1983), and cognitive distortions (Jehu, Klassen, & Gazan, 1985/86). Overall, it appears that cognitions and attributions about negative events mediate long-term adjustment and influence negative symptomatology (e.g., depression and low self-esteem) evident among many victims of violence and abuse (Gold, 1986; Janoff-Bulman & Frieze, 1983; Jehu, Klassen, & Gazan, 1985/86; Silver et al., 1983).

In a pair of articles that examined the role of cognition in the development and maintenance of depression among adult women who were sexually abused as children, Jehu and colleagues found an association between depression and distorted cognition that was specifically related to the abuse experience (Jehu, Gazan, & Klassen, 1984/85; Jehu, Klassen, & Gazan, 1985/86). These beliefs included things such as blaming oneself for the abuse, feeling bad, worthless, and inferior, and being unwilling to trust

others. It was found that for eight of eleven clients engaging in a type of therapy that employed cognitive restructuring, a decrease in distorted cognition was accompanied by a decrease in depression (Jehu, Klassen, et al., 1985/86). While this study suggests that for these women depression is accompanied by distorted cognition, and that cognitive therapy may decrease both of these symptoms, it has not been unequivocally determined that negative cognitions cause depression among sexually abused women.

In a study of attributional style, Gold (1986) found that women with a history of child sexual abuse tended to attribute negative events to internal, stable, and global factors as well as to their character and to their behaviour. In terms of locus of control, these victimized women tended to attribute good events to external factors and tended not to blame others for bad events. Another study found that attributional style was not specifically related to a history of sexual abuse but was associated with higher levels of psychological symptomatology and lower self-esteem among control subjects as well (Runtz, 1987). One study that examined physically abused children found that they were particularly likely to feel that outcomes were determined primarily by external factors (Barahal et al., 1981). Therefore, the importance of cognitions and attributions may vary with the form of maltreatment studied.

It has been suggested that cognitive processes are

among the most commonly used mechanisms involved in dealing with the trauma of victimization (Silver & Wortman, 1980). McCann et al., (1988) put forth a conceptual model of cognitive schemas and their relation to psychological adaptation among victims. In this model, it is proposed that individuals develop cognitive schemas about self and others within five major areas of psychological and interpersonal functioning: i.e., safety, trust, power, esteem, and intimacy. As these schemas are influenced by life experiences, persons who have been victimized may develop negative schemas about self or others within a number of these areas. These negative schemas influence the victim's psychological adaptation and coping which, in turn, may further influence the individual's adjustment and behaviour.

In a study of the "search for meaning" among victims of incest, Silver et al. (1983) found that most victims continued to attempt to understand their early abuse experience years after it had occurred. Those who continued to search but were not able to resolve or accept the experience were more likely to experience continued distress, poor social functioning, and recurrent, intrusive ruminations regarding the incest. Those who reported having come to terms with the incest, although still more symptomatic than a normative population, were less distressed than those who were unable to find meaning. This

study suggests that for many sexually abused women, coping with the experience of victimization is a lifelong process that can be highly disruptive if resolution is not actually attained.

Sexual assault has been widely studied as a traumatic life event that requires the rallying of coping resources both during and after the initial period of crisis that follows the assault. It has been found that a combination of personality, behavioural, and environmental factors contribute to the resolution of sexual assault trauma in women (Burgess & Holmstrom, 1978; Burgess & Holmstrom, 1979; Ellis, 1983). Early victimization and chronic life stressors like financial difficulty, lack of social support, and pre-existing problems tend to interfere with a woman's recovery from rape. For example, those women who had been assaulted, harassed, or mugged prior to the sexual assault, who had not previously disclosed their earlier assaults, and who lacked social support took longer to recover from the rape than other women (Burgess & Holmstrom, 1978).

In another study, Burgess and Holmstrom (1979) described several patterns of coping behaviour employed by women after a sexual assault. Successful coping behaviours included: explanation (providing a reason for the rape), minimization (playing down the horror of the rape), suppression (making a conscious effort to avoid thinking about the rape), action (keeping busy, changing jobs or

moving), and dramatization (repeated expression of anxiety). Coping strategies that were less effective included decreased activity (not going out of the house), withdrawal from people, and substance abuse. Similarly, Meyer and Taylor (1986) found that remaining at home and withdrawing from others was associated with poor post-rape adjustment while the use of stress reduction techniques was related to good adjustment. In a study of battered women, Mitchell and Hodson (1983) found that avoidance coping, less active-cognitive coping, and less active-behavioural coping were related to low self-esteem, low mastery, and greater depression. As demonstrated by the general literature on coping (e.g., Billings & Moos, 1981; Lazarus, 1966; Moos, 1977), it appears that active responses to stress (both cognitive and behavioural strategies) are also more effective than avoidance responses when dealing with victimization.

Burt and Katz (1987) examined the relative efficacy of a variety of emotion-focused and problem-focused coping strategies within a group of previously sexually assaulted women. Overall, all five of the coping strategies that they measured (i.e., avoidance, nervousness and anxiety, self-destructive behaviours, cognitive approaches, and expressive responses) were found to be associated with higher levels of symptomatology and lower levels of self-esteem. They suggested that when distress is high among victims of sexual

assault, all five coping strategies are enacted in an effort to reach an emotional equilibrium.

In a further analysis of the data, Burt and Katz (1988) determined that particular subscales of the coping scale were found to be related with outcome variables indicative of degree of recovery from the sexual assault. For example, of the five subscales, only expressive strategies were found to be unrelated to guilt and self-blame. Self-destructive behaviours and avoidance behaviours were the scales most strongly related to guilt and self-blame. Women who evidenced mature levels of ego development were also less likely to use avoidance, nervous/anxious, and self-destructive behaviours. These findings indicate that expressive strategies may be more effective than avoidance responses in dealing with sexual assault. While there are some similarities between the experience of sexual assault and that of child maltreatment (particularly sexual maltreatment in childhood), there are substantial differences in these experiences that indicate a need for caution in applying the above findings to other forms of victimization. These studies, however, suggest a direction for research on the coping strategies employed by adults who had been maltreated as children.

Like coping resources, social support has been widely studied as a potential mediator of the deleterious effects of life stress on mental and physical well-being (e.g.,

Kessler, Price, & Wortman, 1985; Werner & Smith, 1982). Pearlin, Lieberman, Menaghan, and Mullan (1981) suggested that both social support and coping can reduce the chronic strains resulting from a stressful life event by positively affecting self-esteem and feelings of mastery. Although coping and social support influence one another, they also appear to have independent impacts on health (Heller, Swindle, & Dusenbury, 1986). As a mediator of stress, social support has been hypothesized to have either a direct positive influence on mental health (Thoits, 1982) or a buffering effect (Cohen & McKay, 1984; Leavy, 1983). The buffering hypothesis suggests that stress and social support are interactive; that is, high levels of social support are important when stress levels are also high but are less relevant when stress levels are low (Cohen & Hoberman, 1983). Given the potential for high levels of stress among those with a history of child physical and sexual abuse, social support may play a particularly important role for this population.

A variety of positive functions have been suggested for social support in general. Thoits (1982) has defined social support as coping assistance as she emphasized the value of the active participation of significant others in an individual's stress-management efforts. Shumaker and Brownell (1984) focused on the exchange of resources between two individuals with the intent to enhance the well-being of

the recipient as the cornerstone of social support. They suggested that the health-sustaining functions of social support include the gratification of affiliative needs (belonging), self-identity maintenance and enhancement (appraisal), and self-esteem enhancement. Similarly, as a stress-reducer, social support can function to provide an opportunity for cognitive appraisal of both the stressor and the individual's coping resources, or it can provide needed resources, or assist in cognitive adaptation to the stressor (Shumaker & Brownell, 1984). Each of these functions of social support may prove to be important to those who have experienced either sexual or physical maltreatment in childhood.

The "support deterioration" model of social support implies that stress deteriorates the perceived availability or effectiveness of social support (Barrera, 1986). That is, stress has a negative impact on relationships which then contributes to further symptomatology. According to McFarlane, Norman, Streiner, and Roy (1983), an increase in uncontrollable life events decreases the perceived helpfulness of future supportive transactions. This suggests that abuse victims (who by definition have experienced repeated feelings of powerlessness; Finkelhor & Browne, 1985) may be less likely to be open to trusting and to receiving support from others. Survivors of child maltreatment may, therefore, be less able to take advantage

of the potential benefits that supportive relationships could offer.

It is important to consider, however, that social relationships are not always positive, and that they can also be a source of additional stress (Starker, 1986). For example, Rook (1984) found that the difficulties posed by social relationships in a sample of women were more strongly related to psychological problems than was support. Similarly, an appropriate "fit" must exist between the needs and expectations of the recipient and provider of support (in terms of timing, amount, and type of support) in order for an act of support to be considered as helpful (Cohen & McKay, 1984; Shinn, Lehmann, & Wong, 1984). According to Husaini and Von Frank (1985), those with the weakest personal resources tend to make the most use of them, yet this social support may not be effective unless it raises the individual's coping ability. This idea is supported by research that has shown that it is not so much the size of the social network but rather one's perceptions of its effectiveness that is associated with adjustment (Cohen, McGowan, Fooskas, & Rose, 1984; Wethington & Kessler, 1986).

In an examination of the role of social support among victims of violence, it was found that support was essential to the recovery of rape victims (Burgess & Holmstrom, 1978; Norris & Feldman-Summers, 1981; Sales, Baum & Shore, 1984). Similarly, a number of researchers have concluded that

social support acts as a buffer against the negative effects of child abuse (Conte & Schuerman, 1987; Runtz, 1987; Wyatt & Mickey, 1987; Zimrin, 1986). It may be that for victims of child maltreatment, appropriate, helpful relationships can act to create a sense of belonging, decreased isolation, feelings of mastery, cognitive appraisal and restructuring, and assistance in coping with problems.

The vast bodies of research on coping and social support have many important implications for the study of victims of child maltreatment and abuse. In particular, the theories of stress and coping initially developed by Lazarus and colleagues (Lazarus & Folkman, 1984; Lazarus & Launier, 1978) and recently applied to the area of sexual victimization (Burt & Katz, 1989) hold promise in attempts to understand the long-term effects of child maltreatment. Aspects of all three facets of coping outlined by Lazarus and Launier (1978) (i.e., focus, mode, and function of coping) are assessed by the variables employed in the current study. For example, social support is environmentally focused, can serve both a problem-solving and emotion regulation function, and can provide opportunities for information-seeking and direct action. Similarly, the five dimensions of Burt and Katz's (1989) coping scales cover all four modes of coping (intrapsychic, direct action, inhibition of action, and information seeking), both functions of coping (emotional regulation and

problem-solving), and both foci of coping (directed to both self and the environment). In contrast, the "Recovery from Abuse" scale is primarily self-focused, intrapsychic, and directed toward the regulation of emotions related to earlier maltreatment. These scales, plus other measures of personality (locus of control, self-efficacy), adjustment (psychological symptoms, self-esteem, post-traumatic stress), and coping (coping with current stress) are combined in an attempt to provide a comprehensive assessment of the forms of coping and adjustment that are associated with child maltreatment and the relative efficacy of various ways that people cope with these early traumatic events.

Summary

While much of the recent research has examined the role of child abuse in influencing later psychological adjustment, little has been done to explore the manner in which adults who were maltreated as children have managed to cope with these early experiences. Research on coping strategies in general, has indicated that some approaches are more effective than others in dealing with and mastering life stress. These studies show that active responses (either behavioural or cognitive responses) to problem-solving tend to be more effective than strategies that involve avoidance or denial of the problems (Billings & Moos, 1981). In fact, avoidance and denial have been found

to be the major symptoms associated with trauma following a highly stressful event (Horowitz, 1979).

Coping is a complex and multifaceted construct that involves the individuals' cognitive appraisal as well as their behavioural, emotional, and problem-solving responses to stressful situations. The expression of feelings and emotions appears to be a particularly effective means of coping with sexual assault (Burt & Katz, 1988) and incest (Silver et al., 1983). Perhaps equal to coping in its' impact on adjustment is the presence of social support, as the two interact to influence the individual's response to stress in general (Albee, 1980; Heller et al., 1986). In particular, social support has been conceptualized as an important mediator of sexual abuse-related stress (Conte & Schuerman, 1987; Friedrich et al., 1987; Wyatt & Mickey, 1987).

In the examination of child maltreatment, the current study investigated the correlates of both child sexual abuse and physical maltreatment. As demonstrated by previous research, it was expected that both forms of maltreatment would be negatively associated with later adjustment and self-esteem. To date, there has been no comparison, in the literature, of the relative impact of sexual and physical maltreatment on coping styles, self-efficacy, or locus of control. This study makes comparisons of these variables (and others) on the basis of maltreatment experience and by

subject sex, as it has yet to be determined if there are sex-differences in coping with experiences of child maltreatment.

The current study uses Burt and Katz's approach to coping to examine the relative efficacy of various methods of coping among individuals who were maltreated as children. It is expected that a wide range of adjustment would be demonstrated within the maltreated sample and that coping styles and social resources would act as mediators of the effects of child maltreatment by reducing psychological symptomatology and raising self-esteem. Coping strategies employed in the current sample are also expected to be similar to those used by the sexual assault victims studied by Burt and Katz (1988). That is, avoidance, self-destructive behaviour, cognitive behaviour, and nervous/ anxious behaviour, and lack of social support would likely be related to poorer adjustment while expressive behaviour would likely be associated with positive adjustment. Similarly, attempts to resolve and come to terms with the early maltreatment is likely to be associated with positive adjustment.

Hypotheses

1) Child maltreatment is expected to be associated with higher current levels of psychological symptomatology and poorer self-concept in young adult males and females.

2) Child maltreatment is expected to be associated with a locus of control characterized by a belief in the control of Powerful Others and Chance, with lower self-efficacy, and with lower levels of perceived social support.

3) Child maltreatment is expected to be positively related to the use of avoidance, and negatively related to the use of active-cognitive or active-behavioural methods of coping with a recent stressful situation.

4) It is expected that the greater the experience of child maltreatment, the greater the reliance on a variety of coping strategies. Males maltreated as children are expected to be more likely than maltreated females to use avoidance and less likely to use expressive strategies when coping with their experience of child maltreatment.

5) Among those maltreated as children, lack of social support, plus the use of avoidance coping, cognitive strategies, nervous and anxious behaviours, and self-destructive behaviours are expected to be associated with higher levels of psychological symptomatology, poorer self-concept, and lower self-esteem. The presence of social support and the use of expressive coping strategies are expected to be related to lower levels of symptomatology, positive self-concept, and positive self-esteem.

6) Among those maltreated as children, the use of avoidance coping, cognitive strategies, nervous and anxious behaviours, and self-destructive behaviours are expected to

be associated with lower self-efficacy and a locus of control based on chance and powerful others. The presence of social support, and the use of expressive coping strategies are expected to be associated with greater self-efficacy and an internal locus of control.

7) Among those maltreated as children, the ability to come to terms with their early experiences, to let others really know them, and to be neither obsessed with nor attempting to suppress thoughts about the maltreatment is expected to be related to lower levels of symptomatology and greater self-concept.

METHOD

Subjects and Procedure

Subjects for this study (N=653) were gathered from introductory psychology classes at the University of Manitoba and received partial course credit for their participation. The students were recruited from their classrooms for a study of "life experiences and how people deal with those experiences". A total of 236 males and 415 females participated in the study.

In groups of approximately 50 to 80 people, the subjects filled in a paper-and-pencil survey (see Appendix A) that took approximately one hour to complete. Verbal and written instructions were provided prior to the subjects beginning the questionnaire (see first page of Appendix A). These provided information regarding the sensitive nature of some of the questions, the subject's right to withdraw from the study without penalty, and precautions taken by the examiner to protect the confidentiality of the subjects. The questionnaire was presented as arranged in Appendix A: the child maltreatment scales were placed in the centre of the package following all of the general adjustment and coping scales (in random order) and preceding the three scales that were related to coping with child maltreatment. The self-concept checklist followed these scales at the end of the package.

No subjects withdrew from the study and no

questionnaires were turned in entirely blank. Some subjects, however, may have chosen to omit certain items or subsections of the questionnaire rather than to risk identifying themselves as victims of maltreatment by leaving the study early. Due to the potential for the subject matter of the study to cause subjects emotional distress, each person was given a debriefing sheet as they left the study. This sheet explained the purpose of the study and provided the subject with a local crisis line telephone number and the number of the Psychological Service Centre at the university where I could be reached (see Appendix B).

Subjects completed the 18 page questionnaire by entering their responses on IBM computerized recording forms to facilitate data entry. Most students at the university were familiar with this method of recording responses as the forms are commonly used for classroom examinations. In addition to this form (three forms were required for each questionnaire and were clearly numbered and coded by the examiner) a small number of questions describing the maltreatment experience were to be answered directly on the questionnaire booklet. Each booklet was coded with the same number as the IBM sheets to ensure correct matching of forms. The few responses answered on the booklet itself were hand-entered into the computer by the examiner and combined with the data that had been computer-entered directly from the IBM sheets. Data analysis was carried out

on the University of Manitoba Amdahl 5870 computer using version 2.2 of the Statistical Package for the Social Sciences (SPSS Inc., 1986).

Measures

Three major sets of variables were examined in this study: childhood maltreatment, psychological adjustment, and coping styles. The first set measured the rate of occurrence of child physical maltreatment and child and adolescent sexual abuse. Psychological adjustment measures included current symptomatology and self-concept; social support and coping styles were examined as potential mediators of the negative effects of child maltreatment. Descriptive data were gathered by a short demographic inventory requesting information on the subject's age, gender, level of education, marital status, and other information about the characteristics of the family of origin and current living situation. Social desirability was measured through the inclusion of the 7-item Lie Scale from the MMPI.

Abuse and Maltreatment Measures

Child and Adolescent Sexual Abuse

Childhood sexual abuse was assessed in this study by the modified version of a section of Finkelhor's (1979a) sexual victimization survey. The Finkelhor survey has been widely used in sexual abuse research and has consistently provided evidence for an association between sexual abuse,

as measured by the scale, and a variety of adjustment variables that have been predicted to be related to such abuse (e.g., Briere & Runtz, 1988b; Finkelhor, 1979a; Fromuth, 1986; Gold, 1986; Runtz, 1987; Runtz & Briere, 1986). While Finkelhor did not provide any data on the reliability of the scale, Runtz (1987) found it to have a Cronbach's alpha of .90 within a student sample.

Peters et al. (1986) have found that multi-item methods of determining a subject's sexual abuse status, like the Finkelhor survey, are most effective in eliciting accurate disclosure of childhood abuse. In the present study, therefore, subjects responded to a series of statements describing ten types of sexual experiences that they may have had with a person significantly older than themselves during their childhood. Each item was scored dichotomously and recoded so that 0 = "no" and 1 = "yes". The items include, among others, "someone showing their sexual organs to you", "kissing and hugging in a sexual way", "another person fondling you in a sexual way", "attempted intercourse", and "intercourse".

A series of items followed the sexual behaviour list that detailed various characteristics of the maltreatment experience such as: duration of abuse, age abuse first began, age of the perpetrator, use of force, relationship to the perpetrator, and the victims' current view of the experience, etc. These items were used to further describe

the childhood sexual abuse experiences present in the sample.

In order to differentiate between the types of abusive sexual experiences occurring among subjects as children and as adolescents, the sexual experiences questions were presented twice with different restrictions on the age of the victim and offender for each group. This is a similar approach to that taken by Finkelhor (1979a) as he looked at child sexual abuse prior to age 13 with someone five or more years older, and that occurring between age 13 and 16 with someone at least ten years older.

The two forms of sexual maltreatment during childhood were identified and measured as continuous variables: child sexual abuse (CSA) and adolescent sexual abuse (ASA). These dimensions were not mutually exclusive as subjects were assigned a score (ranging from zero to ten) on each scale. The total CSA score indicated the number of different types of sexual behaviours experienced before the subject was 15 with someone five or more years older. The total ASA score represented the number of sexual behaviours endorsed as first occurring when the subject was between 15 and 18 years with someone 10 years older, or with someone of any age if the contact was nonconsensual. Thus, adolescent sexual abuse could occur in either of two ways: 1) through sexual behaviour with persons significantly older than the subject, or 2) through coercive and/or abusive sexual experiences

with peers.

Child Physical Maltreatment

Childhood physical maltreatment was assessed by a modified version of child abuse scales that were designed and used by Briere and Runtz (1988a) and Runtz (1987). Cronbach's alphas for these nearly identical scales were .78 (Runtz, 1987) and .77 (Briere & Runtz, 1988a). In order to increase its reliability, the scale was lengthened to include eight items.

The revised scale is made up of two sets of questions that inquire about treatment (including physical punishment and abuse) by each parent, step-parent, or guardian when the subject was eighteen years of age or younger. The first set required the subject to indicate the frequency (on a five-point scale recoded so that it ranged from 0 = "never" to 4 = "more than 20 times") with which they experienced any of eight potentially abusive behaviours during childhood. The scale included such behaviours as "hit or slap you really hard", "beat or kick you", "hit you with an object", and "burn or scald you". A total child physical maltreatment (CPM) score was calculated for each subject with a possible range of 0 to 32. Child physical maltreatment was, therefore, treated as a continuous variable that included lower levels of physical punishment as well as some more severe acts that could be considered child abuse.

A subsequent set of questions determined if any of the

eight previously endorsed behaviours had resulted in "bruises", "cuts", "other injury", or "a need for medical treatment". Injury resulting from parental physical treatment was scored dichotomously (yes/no) for each question. From this set of questions a total injury score (0 to 4) was derived as a measure of total types of injury incurred. Questions were also asked regarding physically abusive behaviour (i.e., "being hit or beaten") by siblings, other adults, or other children. These were scored dichotomously (yes/no) and were used to supplement the descriptive analysis of the sample.

Measures of Coping and Adjustment

Two groups of measures were used to examine a variety of responses used by individuals to cope with stress. One group of measures addressed general aspects of coping behaviours and adjustment and was used to identify the association between subjects' experiences of child sexual and physical maltreatment and their current level of psychosocial functioning. These measures included: self-efficacy, locus of control, psychological symptomatology, self-concept and self-esteem, current coping resources, and social support. These seven sets of scales were completed by all subjects in the study.

A second group of instruments related specifically to physical and sexual maltreatment and the subjects' current

ways of coping with these experiences. These scales were completed only by the subjects who endorsed any of the child maltreatment items. Aside from assessing ways of coping associated with each type of maltreatment, these measures were also used to determine the relative effectiveness of various coping strategies among maltreatment survivors. These instruments measured style of coping with child maltreatment experiences, post-traumatic stress, and "recovery from abuse".

General Coping and Adjustment

Coping Resources Scale

Billings and Moos (1981) developed a 19-item scale that asks respondents to indicate how they have dealt with a recent personal crisis or stressful life event. All items of the coping resources scale are scored dichotomously (yes/no). The items are grouped into three method of coping categories and two focus of coping categories. Coping methods include active-cognitive, active-behavioural, and avoidance strategies, while focus of coping involves problem-focused responses and emotion-focused responses. The scale is set up so that there is overlap between the items included in the method of coping and focus of coping categories. The overall Cronbach's alpha for the scale was found to be moderately low at .62, and the alpha for the method subscales ranged from .44 to .80 (Billings & Moos, 1981). The authors defended these low internal

consistencies by positing that the use of one coping response may be sufficient to reduce stress and lessen the need to use other methods. They found that the severity of the self-designated stressful event was not related to the type of coping response employed and that men were less likely to use active-behavioural, avoidance, and emotional focused coping than were women.

Locus of Control

The Internal, Powerful Others, and Chance (IPC) scales developed by Levenson (1974) were developed as an improvement on the Rotter (1966) I-E scale. An Internal locus of control indicates that the individual believes that personal events are dependent on one's own behaviour. Unlike the Rotter scale, Levenson differentiates between two types of external locus of control: a Chance orientation suggests that the individual believes in the role of chance in determining events, while a Powerful Others orientation indicates a belief that the world is controllable but that it is powerful others who are in control. Studies by Levenson (1974) and Blau (1984) have confirmed through factor-analytic techniques that these three scales represent distinct aspects of locus of control. The scale is comprised of 24 items with 8 items on each scale and it employs a six-point response scale ranging from "strong disagreement" to "strong agreement". Internal consistencies of the three scales have ranged from .64 for Internal locus

of control (Levenson, 1974) to .80 for Chance locus of control (Blau, 1984). One week test-retest reliabilities calculated by Levenson (1974) were found to be .64, .74, and .78 for the Internal, Powerful Others, and Chance subscales, respectively. A five-point response scale was used in order for the scale to be compatible with the IBM answer sheets used in this study.

Self-Efficacy Scale

The Self-Efficacy Scale (SES) of Sherer et al. (1982) was designed to measure an individual's expectations of personal mastery. These expectations are thought to be the primary determinants of behavioural change and to be influenced by past experiences and attributions of success. Self-efficacy refers to the belief that one can successfully perform a particular behaviour. According to Sherer et al., those individuals who have a history of numerous experiences of success are likely to have positive self-efficacy expectancies in a variety of situations. That is, feelings of self-efficacy generalize from past experiences of success.

The Self-efficacy Scale is made up of twenty-three items: 17 items on the General Self-efficacy subscale and 6 on the Social Self-efficacy subscale. Responses are measured on a five-point scale ranging from "strongly disagree" to "agree strongly". The Cronbach alpha's for these two subscales have been found to be .86 and .71,

respectively (Sherer et al., 1982). In terms of construct validity, both self-efficacy subscales have been found to have moderate positive correlations with internal locus of control, interpersonal competency, personal control, ego strength, and self-esteem (Sherer et al., 1982).

Brief Symptom Inventory

The Brief Symptom Inventory (BSI) is a 53-item scale that measures nine dimensions of psychiatric symptomatology (Derogatis & Spencer, 1982) and is an abbreviated version of the widely used SCL-90 (Derogatis, Lipman, & Covi, 1973). The BSI measures, on a five-point scale of severity, the following nine types of symptoms: somatization, obsessive compulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. Like its predecessor, the SCL-90, the BSI provides three global indices of severity: the Positive Symptom Total (a count of positive symptoms), the Positive Symptom Distress Index (the mean severity of positive symptoms), and the General Severity Index (the sum of symptom-severity ratings). The General Severity Index (GSI) is used in the present study as it is considered to be the single best indicator of current distress levels (Derogatis & Melisaratos, 1983). The GSI is calculated by summing the average scores for the nine symptom dimensions plus the sum of the four additional items and dividing by the total number of items. This provides for a range of scores

between zero and one with a mean score for non-patient normal adults being .30 (SD = .31; Derogatis & Spencer, 1982).

Intensive reliability and validity testing was conducted on the BSI by Derogatis and Melisaratos (1983). Internal consistency reliability analysis on the BSI has resulted in alpha coefficients for all nine dimensions ranging from .71 to .85. Two-week test-retest reliabilities ranged from .68 to .91 for the nine dimensions and was .90 for the GSI. Correlations between comparable symptom dimensions on the SCL-90 and the BSI have ranged from .92 to .99 and convergent validity has been demonstrated between similar scales on the BSI and the MMPI (correlations ranged from .35 to .52). A factor analysis of the BSI resulted in essentially the same nine-factor structure as the SCL-90-R thereby allowing Derogatis and Melisaratos (1983) to conclude that the BSI is both a reliable and valid short-form of the SCL-90.

Both the SCL-90 and the BSI have been widely used in research and for clinical purposes and, therefore, have the advantage of offering normative data for comparison purposes. Derogatis and Melisaratos (1983) have reported separate norms for psychiatric inpatients, outpatients, and nonpatient adults. The mean age for the nonpatient sample was 46 years and, therefore, not appropriate for samples of college students. For this reason, Cochran and Hale (1985)

calculated norms for college students and found that the students tended to report higher levels of psychological distress than normal adults. The college student norms were used in the current study as the most appropriate group for comparison (M = .84, SD =.55 for males, M = .71, SD = .42 for females).

Self-Concept

In the measurement of self-concept two sets of scales were used. The first was the Coopersmith Self-esteem inventory (Coopersmith, 1967) which was intended to measure a global sense of self-valuation. In addition, the "How I see myself now" scale by Burt and Katz (1987) was used to measure six other aspects of self-concept that may be particularly relevant to survivors of child maltreatment (e.g., guilt and self-blame, trust in others, independence).

Coopersmith Self-Esteem Inventory. The Adult Form of the Coopersmith Self-Esteem Inventory (CSEI) is a 25-item scale that was adapted for use with adults from the original 58-item School Form for children (Coopersmith, 1967). According to Coopersmith (1967), self-esteem is defined as the "valuation of self" and indicates the extent to which the individual believes him or herself to be capable and worthy. While the adult form is essentially the same as the children's short-form, eight items were reworded to be more appropriate to the experiences and lifestyles of adults. Most of the research on the Coopersmith scales has, however,

been done on the children's forms with the assumption that findings would be applicable to the adult form. Since the adult form correlates with the children's short form in excess of .80 within samples of high school and college students (Adair, 1984), this may be a reasonable assumption.

Statistical analysis of the children's scale has indicated that the CSEI is a reliable measure of self-esteem. For example, Coopersmith (1981) reports on a number of studies that have found internal consistency reliability coefficients for the School Form ranging from .80 to .92. KR20s for college students on the adult form were found to range from .71 for females and .74 for males (Bedian, Geagud, & Zmud, 1977). Test-retest reliabilities for the School Form, over a number of studies, have ranged from .42 to .88 (Coopersmith, 1981), with stability tending to increase as the child ages. Bedian et al. (1977) computed reliability estimates of .80 for male and .82 for female college students.

Validity studies reported by Coopersmith (1967; 1981) have indicated that the scores on the CSEI are related to creativity, academic achievement, resistance to group pressures, willingness to express unpopular opinions, perceived popularity, test anxiety, and family communication and adjustment. Similarly, low self-esteem as measured by the CSEI has been found to be related to a history of physical child abuse among children (Kazdin, Moser, Colbus,

& Bell, 1985) and to both physical and sexual abuse among adult survivors (Bagley & McDonald, 1984; Bagley & Ramsay, 1985; Carsen, Council, & Volk, 1987). The CSEI has also been found to be positively correlated with a number of other self-report measures of self-esteem (Coopersmith, 1981). For example, the correlation between the CSEI and the Rosenberg scale was found to be .60 (Shaver & Robinson, cited in Coopersmith, 1981).

While the adult form is intended to provide a general measure of self-esteem (Coopersmith, 1981), at least one study has found it to be multifactorial (Ahmed, Valliant, & Swindle, 1985). In their study of college students, Ahmed et al. (1985) found that the CSEI was comprised of four factors (i.e., View of Life, Family Relations, Tolerance of Ambiguity, and Sociability) that included 20 of the 25 items. Ahmed et al. did not, however, indicate the proportion of variance accounted for by these factors. Also, while the reliability of the full scale was .75 (Cronbach's alpha), some of the subscales were very short (e.g., three items) resulting in alpha coefficients that ranged from .31 to .35. The findings of this study, rather than supporting the multidimensionality of the scale, suggest that a single general scale would most accurately assess self-esteem among college students.

For this study, the general self-esteem score derived from all 25 items, was used. According to Coopersmith

(1981), a total score is calculated by summing the items (after recoding them on a scale of 0 to 1) and multiplying the total by four to create a maximum score of 100. This allows a possible range of scores from 0 to 100 with larger scores signifying higher self-esteem. Average scores on this scale tend to range from 70 to 80 (*SD* = 11 to 13; Coopersmith, 1981).

"How I see myself now" Scale. The "How I see myself now" scale (Burt & Katz, 1987) is an adjective checklist comprised of 41 self-descriptive items that measure various components of self-concept. A factor analysis of this scale (Burt & Katz, 1987) produced six factors as follows: 1) angry/needy/lonely; 2) independence/competence; 3) mental health; 4) trust; 5) help; and 6) guilt/blame. Examples of items from each factor includes: 1) "fearful", "angry", "needy"; 2) "self-confident", "assertive", "competent"; 3) "happy", "clear about my values", "strong"; 4) "trusting of strangers", "trusting of men", "vulnerable"; 5) "able to ask for help or support", "deserving praise", "worthy of getting help or support"; and 6) "guilty", "trusting of myself" (scored in reverse), and "deserving of blame". The internal consistency reliabilities for the factors ranged from .68 to .77, while the test-retest reliabilities ranged from .53 to .82. A five-point scale ranging from 0 = "never" to 4 = "usually" was used in the present study in place of the author's original seven-point scale.

Social Support

Social support was assessed by the Provisions of Social Relations (PSR) scale of Turner, Frankel, and Levin (1983). According to Turner et al. (1983), social support can be regarded as "a personal experience rather than a set of objective circumstances". The notion that perceived or experienced social support is central to the construct of social support is generally supported by the empirical literature (e.g., L. Cohen, McGowan, Fooskas, & Rose, 1984; S. Cohen & Hoberman, 1983; Fiore, Coppel, Becker, & Cox, 1986; Wethington & Kessler, 1986).

The PSR is a 15-item instrument that measures perceived social support. Although the PSR was originally intended to assess provisions of social relationships as envisioned by Weiss (1974) (i.e., attachment, social integration, reassurance, of worth, reliable alliance, and guidance), Turner et al. (1983) found that the scale factored into two dimensions related to the source of the support. These factors reflect support from family (six items) and support from friends (nine items).

Internal consistency of the two factors and of the total scale ranged from .75 to .87 (Turner et al., 1983). In terms of construct validity, Turner et al. (1983) found that across a variety of samples, the PSR correlated from .37 to .62 with two other measures of self-esteem. Similarly, the PSR was negatively associated with measures

of anxiety, anger/aggression, depression, and with the Brief Symptom Inventory of Derogatis and Spencer (1982).

Coping with Child Maltreatment

A preamble was inserted prior to the instructions for the next three scales to indicate that the subject was to answer the questions with regard to experiences of child maltreatment. These scales served to measure coping and recovery among those with experiences of either sexual of physical maltreatment. Those subjects who indicated that they had never experienced any of the child maltreatment items were instructed to move on to the next section of the questionnaire.

"Coping: How I deal with things" Scale

The "How I deal with things" scale is a 29-item scale designed by Burt and Katz (1987) to measure coping and recovery among sexual assault victims. Slight modifications were made to the wording of this scale in order to make it more applicable to the study of child maltreatment. For items which specifically mention sexual assault or rape (e.g., "Trying to forget the rape ever happened"), the more neutral phrase "the experience" was substituted for the words "rape" or "sexual assault". Although the original items were accompanied by a seven-point scale, for this study, the measure was re-formatted as a five-point scale ranging from 0 = "never" to 4 = "usually".

A factor analysis of this scale resulted in five

factors (Burt & Katz, 1987): 1) avoidance, 2) expressive, 3) nervous/anxious, 4) cognitive, and 5) self-destructive. An example of an item from each of the factors include: 1) "Sleeping a lot and trying not to think about what happened", 2) "Talking to family and friends about your feelings", 3) "Crying, screaming, and giggling a lot when you are by yourself", 4) "Trying to rethink the situation and to see it from a different perspective", 5) "Drinking a lot of alcohol or taking other drugs more than usual." The internal consistency reliabilities of the five factors ranged from .65 to .75 while the test-retest reliabilities ranged from .68 to .83.

Impact of Event Scale

The Impact of Event Scale (IES) of Horowitz, Wilner, and Alvarez (1979) was designed to assess the experience of post-traumatic stress for any designated traumatic event. It is made up of 15 items with a four-point scale ranging from "not at all" to "often". It measures two categories of experience in response to stressful events: intrusive ideas, feelings, or bad dreams, and the avoidance of certain ideas, feelings, and situations. The internal consistency (Cronbach's alpha) of the subscales has ranged from .79 to .92 for intrusion and from .82 to .91 for avoidance (Zilberg, Weiss, & Horowitz, 1982). In terms of validity, the subscales have been shown to be effective in distinguishing between samples of individuals who had

experienced a similar life event but who were undergoing different levels of stress plus they were also sensitive to positive changes occurring in symptomatology during therapy (Zilberg et al., 1982).

Recovery from Abuse Scale

This scale was devised for this study to assess the extent to which individuals with a history of child maltreatment have come to terms with and have resolved these potentially distressing events. This 25-item scale is intended to measure a number of dimensions of recovery from childhood maltreatment that are based in part on clinical experience and are related to the formulation of Horowitz et al. (1979) and Silver et al. (1983). That is, a central aspect of recovery from maltreatment is expected to be the extent to which the individual is either avoiding thinking about the maltreatment (through denial, repression, or suppression) or is bothered by intrusive or obsessional thoughts about the maltreatment.

Other dimensions of recovery from abuse which are not covered by either the Horowitz scale or the Burt & Katz coping scale include: the ability to be objective about the childhood trauma, the extent to which strong and disruptive emotions occur in respect to the topic of maltreatment, the amount of self-imposed isolation occurring, the sense of being different from others, the degree of self-blame, and the individual's ability to be self-reliant and feel like a

survivor rather than a victim. Some of these items are similar to dimensions of the "search for meaning" described by Silver et al. (1983) in their study of incest victims and recovery.

The current measure employed a five-point scale (recoded to range from 0 = "not at all like me" to 4 = "very much like me") to investigate the above dimensions with reference to the subject's childhood maltreatment experiences. A principal components analysis was done to determine the factor structure of the scale. This is described in detail in the results section.

RESULTS

Subject Characteristics

Of the 653 subjects in the present study, 415 (64%) were female and 236 (36%) were male. Demographic information was missing for two subjects. Subject age ranged from 17 to 47 with a mean age of 19.7. The modal age was 18. The majority of subjects were single (94%), only 24 subjects (3.7%) were married or living as married and less than 1% of subjects were separated or divorced. Eighty percent were in their first year of university studies. Most were living with their parents at the time of the study (56%), 123 (19%) lived with friends or other family, 103 (16%) lived in residence, 29 (4%) lived alone, and 29 (4%) lived with their spouse. In regard to the family or origin of the subjects, most came from families with 4 or less children (88%). The average number of children in their families was three. Most subjects were either the oldest or youngest child in the family, 37% and 35%, respectively. Twenty-two percent were middle children and 5% were the only child in the family. The average family income when the subject was 18 years or younger was $30-40,000 although the modal subject came from a family with an income exceeding $40,000. Only 15% of subject's family of origin income was less than $20,000. The majority of subjects came from cities of over 300,000 people (46%) while 31% came from farms or small towns.

An examination of bivariate correlation matrices (Pearson product-moment correlations) indicated that no demographic variable had a correlation greater than $\underline{r}$ = .20 with any of the independent and dependent variables used in the study. When demographic characteristics were examined for each sex, few meaningful differences appeared when using a significance level adjusted for multiple t-tests (alpha =.006). There were no significant differences between the sexes on the following variables: age, marital status, living arrangements, size of family of origin, birth order position, and family or origin income. Only size of town ($\underline{t}$ (646) = -3.16, $\underline{p}$<.002) and year in program of studies ($\underline{t}$ (649) = -3.85, $\underline{p}$<.000) were significantly related to sex of subject. Males tended to be more likely than females to come from large towns and to be beyond their first year of studies.

Data Characteristics

A number of preliminary statistical procedures were conducted in order to determine the characteristics of the data prior to further analysis. As suggested by Tabachnick and Fidell (1983) all data were examined for the presence of univariate and multivariate outliers, normality, linearity, and heteroscedasticity. This involved conducting examinations of residual scatterplots, bivariate correlation matrices, and values of skewness and kurtosis. The variables furthest from having a normal distribution were

the three maltreatment variables. Although each of these variables were negatively skewed, this was expected as child maltreatment occurs at a low base rate within most populations. Transformation of the maltreatment variables did not improve the shape of the distributions and in one case, reversed the direction of the skew. Therefore, these variables were left untransformed.

Pearson product-moment correlation coefficients were computed to assess for multicollinearity among variables. Although Tabachnick and Fidell (1983) indicate that multicollinearity occurs when pairs of variables have correlation coefficients exceeding .99, the presence of moderately high correlations (e.g., .60 to .80) would also suggest considerable overlap among the variables. Correlations between the three maltreatment variables and the 28 outcome variables were all less than .30. While higher correlations occurred among the dependent variables, most were in the low to moderate range (i.e., less than .50). The highest intercorrelations, as expected, occurred among the subscales of the Burt and Katz scales which allowed for items to appear on more than one subscale. Tables of the correlations between all variables employed in the study can be found in Appendix C.

Child Maltreatment

The results attained by any study of child maltreatment depend to some extent on the operational definitions

employed and on the characteristics of the maltreatment present in the target sample. Descriptive information regarding the type of maltreatment experienced will be presented in some detail in order for the reader to be able to compare the findings of the current study with results obtained from other samples.

For subjects who did not answer either "yes" or "no" to the questions related to child maltreatment, the missing data were conservatively recoded as if they had answered negatively to each question. This involved 80 cases for the child sexual abuse variable, 58 for adolescent sexual abuse, and 37 for child physical maltreatment. As suggested by Tabachnick and Fidell (1983), the cases with missing data were examined to determined if they differed significantly from the rest of the cases. It was determined that subjects who did not respond to the child maltreatment questions did not differ significantly from those who answered negatively to items on each of the three scales. Subjects were compared on the BSI scale: CSA ($t_{(575)}$= -2.01, p=.05), ASA ($t_{(575)}$= -.07, p=.94), and CPM ($t_{(575)}$= -.05, p=.96) and the self-esteem scale: (CSA ($t_{(575)}$= .18, p=.86), ASA ($t_{(575)}$= 1.48, p=.14), and CPM ($t_{(575)}$= -.07, p=.94). For CSA there was a trend for those who left these questions blank to show higher BSI scores than those who answered negatively although this was not significant when an alpha level corrected for the use of multiple tests was used

(alpha=.008).

Child Sexual Abuse Characteristics

Seventy-six subjects (11.6%) experienced sexual contact with a significantly older person before the age of 15 years (CSA). There were approximately twice as many females as males who had been sexually abused as children (see Table 1). Of the ten sexual behaviours listed on the CSA scale, the mean number of items endorsed was 5.0. The internal consistency reliability (Cronbach's alpha) for the 10-item continuous CSA scale was .94.

The following descriptive statistics apply to the 76 subjects who had been sexually abused prior to the age of 15. While the majority of abused subjects (83%) experienced being "fondled in a sexual way" or having their "sexual organs touched" by an older person, intercourse or attempted intercourse was also common (32%). Table 2 displays the frequency of occurrence of the individual items on the CSA scale.

For the largest group of sexually abused subjects (n=34, 45%), the sexual behaviour occurred either once or over a period of a few days while for 12 subjects (15.7%) it extended across a number of years. The average duration of child sexual abuse was a few weeks and the average frequency was in the range of three to ten incidences. Ten subjects (13%) indicated that they had been threatened, 20 (27%) had been forced, 10 (13%) had been hurt physically, and 33

Table 1

Frequency of Child and Adolescent Sexual Abuse and Physical Maltreatment

Type of Abuse	Total N (%)	Female N (%)	Male N (%)
Child Sexual Abuse ($\leq$14)	76 (12%)	61 (15%)	15 (6%)
Adolescent Sexual Abuse (15-18)	91 (14%)	68 (16%)	22 (9%)
Child Physical Maltreatment (with Injury) ($\leq$18)	157 (24%)	104 (25%)	53 (23%)

Note. Total N = 653, Females n = 415, Males n = 236.

Table 2

Child Sexual Abuse (CSA): Frequency of Item Endorsement

Item	Total	Females	Males
1) Sexual invitation	8%	10%	4%
2) Kissing & hugging	8%	10%	5%
3) Other exposing	6%	8%	3%
4) You exposing	5%	5%	4%
5) Other fondling you	8%	11%	4%
6) You fondling other	5%	5%	4%
7) Other touching your sex organs	8%	10%	4%
8) You touching other's sex organs	4%	5%	4%
9) Attempted intercourse	3%	3%	3%
10) Intercourse	2%	3%	1%

Note. Total N = 653, Female n = 415, Male n = 236.

(43%) had been convinced to participate during the event[1].

The age of the victim at the time of the first incident ranged from 4 to 14 years with an average age of 10 years. The perpetrators of child sexual abuse ranged in age from 11 to 60 years with an average age of 25 years. The typical perpetrator was, therefore, 15 years older than the typical victim. The majority of the perpetrators were male (79%) although 18% were female. Most of the perpetrators were known to the victim: 36% of offenders were family members, 40% were known to victim but were not family, and 9% were strangers. Table 3 presents the identities of child sexual abuse perpetrators broken down by sex of victim.

There were no significant differences between male and female victims on any of the descriptive variables mentioned above except for sex of the offender. That is, there were significantly more female offenders identified by male subjects than by female subjects ($t(72) = -7.21$, $p<.000$).

In retrospect, most abused subjects viewed their experience as primarily negative (58%). Equal proportions (21% in each group) viewed the experience as mainly positive or as neither positive nor negative. Female victims were particularly more likely than male victims to feel that the experience had been negative ($t(74) = 4.51$, $p<.000$). Most victims (66%) felt confident in their ability to recall

[1] As these behaviours were not thought to be mutually exclusive, subjects were allowed to endorse more than one category.

Table 3

Perpetrators of Child Sexual Abuse (prior to age 15)

Identity	Total	Female	Male
Stranger	9%	10%	7%
Acquaintance	9%	8%	13%
Friend of yours	5%	7%	0
Friend of parent	7%	8%	0
Parent	11%	12%	7%
Grandparent	1%	2%	0
Step-parent	5%	7%	0
Boy/girlfriend	6%	16%	13%
Uncle/aunt	7%	7%	7%
Brother/sister	5%	7%	0
Cousin	7%	7%	7%
Neighbour	8%	8%	7%
Teacher	1%	2%	0
Babysitter	9%	2%	40%
Parent of friend	0	0	0
Employer	0	0	0

Note. Total N = 76, Female n = 61, Male n = 15.

these experiences while 20% were less confident in their memories.

Twenty-five percent of the sexually maltreated subjects indicated that they felt they had been sexually abused as children. A discriminant function analysis was run to determine the contribution of various characteristics of the abuse situation to the tendency to identify one's experience as abusive. While the overall analysis was significant (X^2 (15) = 38.85, $p<.001$), it should be viewed with caution due to the small number of subjects (n = 20) in one group. Identifying oneself as a victim of child sexual abuse was associated with the following variables: the offender was a family member (F (1,71) = 11.76, $p<.001$), longer duration (F (1,71) = 12.00, $p<.001$), abuse began at an earlier age (F (1,71) = 12.62, $p<.001$), either threat (F (1,71) = 12.02, $p<.001$) or force (F (1,71) = 10.65, $p<.002$) was used, and the subject described the experience as being primarily negative (F (1,71) = 10.65, $p<.002$). The following variables were not related to identifying oneself as a victim: sex of subject, sex of offender, age of offender, age difference between victim and offender, experiencing intercourse or attempted intercourse, number of incidences of abuse, clearness of memory of the abuse, being physically hurt by the abuse, being convinced to participate, and talking to a therapist about childhood experiences.

Adolescent Sexual Abuse Characteristics

Ninety-one subjects (13.9%) had experienced either nonconsensual sexual contact or sexual contact with a significantly older person between age 15 and 18 (ASA). As with CSA, there were approximately twice as many females as males sexually abused as adolescents (see Table 1). Of the ten sexual behaviours listed on the ASA scale, the mean number of items endorsed was 6.6. The internal consistency reliability (Cronbach's alpha) for the 10-item continuous ASA scale was .97.

The following descriptive statistics apply to the 91 subjects who had been sexually abused between the ages of 15 and 18. While the majority of ASA subjects (78%) experienced being "fondled in a sexual way" or having their "sexual organs touched" either by an older person or against their will, intercourse or attempted intercourse was also common (57%). Table 4 displays the frequency of occurrence of the individual items on the ASA scale.

For 40% of the abused subjects the sexual behaviour occurred either only one time or over a period of a few days and for 44% it continued over a few weeks or months. For 15% of subjects the abuse extended over a number of years. The average duration of abuse was a few weeks and the average frequency was within three to ten incidences. Seven percent of subjects indicated that they had been threatened, 14% had been forced, 7% had been hurt physically, and 35%

Table 4

Adolescent Sexual Abuse: Frequency of Item Endorsement

Items	Total	Female	Male
1) Sexual invitation	11%	14%	7%
2) Kissing & hugging	12%	14%	8%
3) Other exposing	9%	9%	7%
4) You exposing	7%	8%	5%
5) Other fondling you	11%	13%	7%
6) You fondling other	9%	9%	7%
7) Other touching your sex organs	10%	11%	7%
8) You touching other's sex organs	9%	10%	7%
9) Attempted intercourse	8%	9%	5%
10) Inter-course	6%	7%	3%

Note. Total *N* = 653, Female *n* = 415, Male *n* =236.

had been convinced to participate during the abuse.

The average age of the victim the first time abuse occurred was 17 years. The perpetrators of adolescent sexual abuse ranged in age from 14 to 50 years with a mean age of 23 years. The typical perpetrator was, therefore, six years older than the typical victim. The majority of the perpetrators (75%) were male although 24% were female. Most of the perpetrators were known to the victim: 50% were known to victim but were not family, 3% of offenders were family members, and 7% were strangers. While the overall percentage of known perpetrators was similar to that of the child sexual abuse victims, there were fewer ASA offenders who were family members (3% versus 36%). Table 5 presents the identities of adolescent sexual abuse perpetrators broken down by sex of victim.

Differences between male and female victims appeared in the sex, identity, and age of the offender. As with those abused prior to age 15, there were significantly more female offenders identified by male subjects than by female subjects ($\underline{t}(87) = -25.17$, $\underline{p} < .000$). Female victims reported significantly older offenders than did male victims ($\underline{t}(88) = 2.28$, $\underline{p} < .025$) and male victims reported a greater proportion of offenders who were strangers ($\underline{t}(88) = -3.1$, $\underline{p} < .003$).

In retrospect, more subjects (43%) viewed the event as a mainly positive experience rather than as either a neutral (30%) or primarily negative one (28%). This is quite

Table 5

Perpetrators of Adolescent Sexual Abuse

Identity	Total	Female	Male
Stranger	7%	2%	18%
Acquaintance	14%	13%	18%
Friend of yours	23%	29%	5%
Friend of parent	6%	6%	5%
Parent	0	0	0
Grandparent	0	0	0
Step-parent	1%	0	5%
Boy/girlfriend	40%	40%	41%
Uncle/aunt	0	0	0
Brother/sister	0	0	0
Cousin	2%	3%	0
Neighbour	2%	2%	5%
Teacher	1%	0	5%
Babysitter	0	0	0
Parent of friend	1%	1%	0
Employer	2%	3%	0
Other	1%	1%	0

Note. Total *N* = 91, Female *n* = 68, Male *n* = 22.

different from the findings for subjects abused before age 15 where the majority found the experience to be primarily negative. Female victims were particularly more likely than male victims to feel that the experience had been negative ($t(88) = 2.44$, $p<.017$). Most victims (70%) felt confident in their ability to recall these experiences while only 11% were less confident in their memories.

Fewer adolescent victims than child victims (9% versus 25%) indicated that they felt they had been sexually abused. A discriminant function analysis was run to determine the contribution of various characteristics of the abuse situation to the tendency to identify one's experience as abusive. While the overall analysis was significant (X^2 $(15) = 39.87$, $p<.001$), it should be viewed with caution due to the small number of subjects in one group (n=8). Identifying oneself as a victim of adolescent sexual abuse was associated with the following variables: intercourse or attempted intercourse occurred (F $(1,84) = 7.05$, $p<.01$), abuse began at an earlier age (F $(1,84) = 5.46$, $p<.02$), force was used (F $(1,84) = 10.49$, $p<.002$), the victim was hurt physically (F $(1,84) = 4.55$, $p<.04$), the victim was convinced to participate (F $(1,84) = 6.08$, $p<.02$), and the subject described the experience as being primarily negative (F $(1,84) = 7.56$, $p<.007$). The following variables were not related to identifying oneself as a victim: sex of subject, sex of offender, age of offender, age difference between

victim and offender, the offender was a family member, number of incidences of abuse, duration of abuse, use of threat, clearness of memory of the abuse, and talking to a therapist about childhood experiences.

Physical Maltreatment Frequency and Characteristics

Four-hundred and thirty-two subjects (66%) endorsed at least one item on the eight-item physical maltreatment scale. That is, two-thirds of subjects acknowledged at least one experience of being physically struck by a parent at some point during childhood. The Cronbach's alpha for the continuous CPM scale was .85. Overall, 157 subjects (24% of all subjects) acknowledged injuries or a need for medical treatment as the result of parental treatment. While most of those who reported being hit by a parent were not injured, over 1/3 of them (36%) were injured. As the number of incidences and types of maltreatment increased, so did the extent of injury (r = .50). Table 6 shows the frequency of behaviours on the child maltreatment scale.

Physical maltreatment resulting in injury was equally distributed between the sexes: 23% of males and 25% of females indicated having been injured by their parents as children ($X^2(1) = .42$, $p=.51$). There were also no significant differences between the sexes on all four categories of injury (i.e., bruises, cuts, need for medical treatment, and other injury).

Of the 157 physically injured subjects, 130 (83%)

Table 6

Child Physical Maltreatment: Frequency of Item Endorsement

Items	Never	1 or 2	3-10	11-20	>20
1) Hit or slap hard	34%	31%	17%	6%	11%
2) Beat or kick	80%	11%	4%	2%	3%
3) Push or throw down	75%	15%	5%	2%	2%
4) Hit with an object	64%	16%	9%	5%	5%
5) Pull hair	76%	12%	7%	2%	2%
6) Burn or scald	95%	3%	1%	1%	1%
7) Scratch	87%	9%	2%	1%	1%
8) Twist limb	77%	14%	4%	1%	2%

Note. Total N = 653.

were abused by their mothers and 111 (71%) were abused by their fathers. Seven percent were abused by step-mothers, 11% were abused by step-fathers, and 14% were abused by other adult relatives or guardians. There were no significant differences between the sexes in the frequency with which mothers, step-mothers, or step-fathers were identified as the perpetrators of maltreatment leading to injury. When injured by a parent, male subjects were more likely than females to have been struck by their fathers ($X^2(1) = 4.40$, $p<.04$) or other relatives or guardians ($X^2(1) = 5.03$, $p<.02$). See Table 7 for the identities of physical maltreatment perpetrators.

Physical maltreatment by persons other than parents was also common among subjects. Forty percent of all subjects indicated that they had been "hit or beaten" by a brother or sister, 26% by another child, and 6% by a non-family member adult. Male subjects were more likely than females to have been "hit or beaten" by another child ($X^2(1) = 23.77$, $p<.000$) yet not by siblings or other adults.

Only 7% of all subjects who had been hit indicated that they felt they had been physically abused as a child. However, of those who had been physically injured, 17% saw themselves as victims of child physical abuse. A discriminant function analysis was conducted in order to elucidate the factors that contribute to the tendency to identify one's experience as abusive. While the overall

Table 7

Perpetrators of Child Physical Maltreatment Involving Injury

Person	Total	Females	Males
1) Mother	83%	84%	78%
2) Father	71%	66%	78%
3) Step-mother	7%	10%	2%
4) Step-father	11%	14%	6%
5) Relative or guardian	14%	9%	22%

Note. Total *N* = 157; Female *n* = 102; Male *n* = 55.

analysis was significant (X^2 (18) = 175.84, p<.000), it should be viewed with caution due to the small number of subjects in one group (n=28). Identifying oneself as a victim of child physical abuse was associated with the following variables: total injury score (F (1,441) = 70.58 p<.000), total frequency of maltreatment (F (1,441) = 100.3, p<.000), abusive treatment by stepmother (F (1,441) = 20.26 p<.000) or stepfather (F (1,441) = 12.57 p<.000), and being "hit or beaten" by a non-family adult (F (1,441) = 11.09 p<.001). A higher score on each item in the child physical maltreatment scale (except for "burn or scald you") was also significantly related to a tendency to rate the experience as child abuse (p<.000). Variables that were not related to identifying oneself as an abuse victim included: sex of subject, treatment by the mother, father, other relatives or guardians, siblings, or other children.

Measurement of Coping and Adjustment

General Coping and Adjustment

There were minimal amounts of missing data among the responses of subjects to the seven general coping and adjustment questionnaires. The scale with the greatest amount of missing data was the "How I see myself now" scale which came at the very end of questionnaire packet. On this scale there were 80 subjects (12% of the total N) who did not complete every item. The average number of cases with

missing data on any of the seven scales was 26 (or 4% of the total N).

A visual examination of the data determined that there were no obvious patterns to the missing values aside from the greater likelihood of missing data occurring near the end of the entire packet. This was likely due to increased carelessness as a function of fatigue while nearing the finish of the lengthy questionnaire. Mean scores for every item on each scale were calculated for the available sample and used to replace missing data. This method of dealing with missing data is considered to be conservative as it does not appreciably alter the variable's mean value and is appropriate when the amount of missing data is not large (Tabachnick & Fidell, 1983). As expected, following insertion of item-means the mean values for each scale were found to be very close to what they were prior to reclaiming the missing data. For example, absolute changes in scale means ranged from .02 to .10 (for the Self-efficacy and Provision of Social Relations scales, respectively).

Social desirability was assessed by the Lie Scale of the MMPI. While this scale was not entered into any of the major analyses, Pearson product-moment correlations were calculated for the total Lie score with the three child maltreatment variables and with the 28 variables used in subsequent analyses. Social desirability was not associated with either the extent of physical maltreatment ($r = -.02$, p

= .62), child sexual abuse (r = -.03, p = .52, or adolescent sexual abuse (r = .00, p = .94). Similarly, there were no meaningful associations between any of the other 28 variables and social desirability. Given that social desirability did not appear to influence subject's responses to any meaningful extent, no further examination of this construct was conducted.

Coping Resources Scale

There were complete data for 632 subjects on the Coping Resources Scale (Billings & Moos, 1981). Mean values were calculated for each item and inserted in place of missing values for the 21 subjects with missing data. All 653 subjects were used for later analyses.

A reliability analysis of the Coping Resources Scale determined that the internal consistency of the entire scale is relatively poor (Cronbach's alpha = .40). This is similar to the low reliability reported by Billings and Moos (i.e., alpha = .62). When the internal consistency reliabilities were calculated for the method of coping subscales they ranged from an alpha of .05 (avoidance coping) to .46 (active-behavioural coping). Similarly, the internal consistencies of the focus of coping subscales were also low. The problem-focused subscale had a Cronbach's alpha of .46 and the emotion-focused subscale had a Cronbach's alpha of only .20.

Due to the consistent finding of relatively poor

internal consistency of the coping resource subscales, a principal components analysis with varimax rotation was conducted for 653 subjects on the 19-item scale. The first run of the analysis produced six factors with eigenvalues greater than one and that cumulatively accounted for 48% of the variance. None of these factors resembled the originally hypothesized dimensions described by the authors of the scale. Since the last three factors each contained very few items (three or less) and an examination of the scree plot suggested fewer factors would adequately describe the sample, the analysis was rerun with a three-factor solution.

The three-factor solution produced the following factors that together accounted for 30% of the variance: 1) active/objective (7 items); 2) worried/angry (6 items); 3) rely on others (4 items). Three items (item 6, 17, and 19) were recoded in the reverse direction to ensure positive loading on their respective factors. Item 16 (smoking more) and 18 (keeping busy) did not load significantly on any of the factors and were, therefore, not retained for the three subscales. These three new subscales were used in subsequent analyses. See Appendix D (Table D-1) for the three-factor solution.

Subscale means, standard deviations, and internal consistency reliabilities can be found in Table 8. Internal consistency reliabilities of these three new scales are

Table 8

Scale Statistics and Cronbach's Alpha of Measures

Variables	Mean	SD	Range	Alpha
CSA	.56	1.79	0 - 10	.94
ASA	.89	2.53	0 - 10	.97
CPM	3.46	4.83	0 - 32	.85
Symptoms (BSI)	57.73	33.73	2 - 212	.96
Self-esteem	64.69	20.74	8 - 100	.84
Lie scale (MMPI)	3.42	2.09	0 - 12	.52
"How I see myself now"				
Angry/Needy	28.11	6.78	12 - 56	.84
Independent	51.61	7.78	26 - 70	.85
Mental Health	49.27	7.64	23 - 65	.87
Trust	31.66	4.46	13 - 42	.68
Seek Help	25.67	4.59	7 - 35	.82
Guilt	16.86	3.69	8 - 34	.68
"How I deal with things"				
Cognitive	14.11	5.60	7 - 29	.80
Expressive	18.47	4.88	7 - 35	.56
Nervous/anxious	15.24	5.27	9 - 38	.76
Avoidant	13.49	5.82	7 - 32	.81
Self-destructive	13.43	4.32	7 - 32	.65
Coping Resources				
Active/objective	4.88	1.61	0 - 7	.56
Angry/worried	2.78	1.45	0 - 6	.45

Table 8 (continued)

Scale Statistics and Cronbach's Alpha of Measures

Variables	Mean	SD	Range	Alpha
Rely on others	2.38	1.16	0 - 4	.46
Recovery from Abuse				
Detachment	17.94	6.60	8 - 37	.81
Upset/emotional	16.21	5.59	9 - 36	.78
Survivor	23.57	5.32	7 - 35	.69
Impact of Events				
Intrusion	11.72	5.50	7 - 32	.91
Avoidance	14.92	7.20	8 - 33	.90
Self-efficacy				
General Self-eff.	61.27	9.25	21 - 84	.84
Social Self-eff.	20.44	4.13	8 - 30	.69
Locus of Control				
Internal	29.65	3.62	17 - 39	.47
Powerful Others	19.97	4.73	8 - 34	.70
Chance	19.99	4.79	8 - 37	.70
Social Support				
Family Support	24.28	4.64	6 - 30	.85
Friend Support	37.31	4.84	20 - 45	.80

generally higher than those attained on the original scales in this sample. While these values are still relatively low this solution appears to be more satisfactory than either method of dimensionalization offered by the authors of the scale.

Locus of Control

Complete data were available on the Locus of Control Scale (Levenson, 1974) for 638 subjects. For the 15 cases with missing data, item means were calculated and substituted for missing values and all 653 subjects were used in later analyses. A principal components analysis with varimax rotation produced three factors (Internal, Powerful Others, and Chance) with items loading in a nearly identical manner to those described by Levenson (1974). The three original factors were employed in subsequent analyses. See Table 8 for means, standard deviations, and internal consistency reliabilities of the subscales. Norms for the five-point scale are not available for comparison.

Self-Efficacy Scale

The Self-Efficacy Scale (Sherer et al., 1982) was completed in its entirety by 642 subjects. Item-means were inserted in place of missing values for the remaining 11 subjects. An examination of the factor structure of the scale confirmed the presence of the two original factors. These factors were used in subsequent analyses. Subscale means, standard deviations, and internal consistency

reliabilities can be found in Table 8. Norms for the five-point scale are not available for comparison.

Brief Symptom Inventory

Data on the Brief Symptom Inventory (BSI; Derogatis & Spencer, 1982) was complete for 615 subjects. Missing values for the remaining 38 subjects were replaced with item-means bringing the total number of subjects available for analysis to 653. See Table 8 for overall mean, standard deviation, and internal consistency reliability for the BSI.

The General Severity Index (GSI) was used as a measure of overall current stress levels. The mean GSI for the entire sample was .28 (*SD* = .16). While this is comparable to the mean scores of non-patient normal adults (i.e., *M* = .30, *SD* = .31; Derogatis & Spencer, 1982), it is about 1 *SD* below scores attained by both college males (*M* = .84, *SD* = .55) and females (*M* = .71, *SD* = .42; Cochran & Hale, 1985).

Self-esteem

On the Coopersmith Self-esteem Inventory (CSEI; Coopersmith, 1967) 636 subjects completed all of the 25 items of the scale. Item means were substituted for missing values for the remaining 17 cases. An internal consistency reliability analysis on the entire scale resulted in a Cronbach's alpha of .84.

For the current sample, scores ranged from 8 to 100 (maximum range = 0 to 100) with a mean score of 64.69 (*SD* = 20.74). Although there was greater variability in the

current sample, the mean was close to scores normally attained on this scale (i.e., *M* = 70 to 80, *SD* = 11 to 13; Coopersmith, 1981).

Self-Concept: "How I see myself now" Scale

The self-concept scale was initially completed by 573 subjects. Although 80 subjects left some missing data on this scale, most subjects with missing data were missing only a few responses. Therefore, missing data was reclaimed by the substitution of item-means. This allowed for all 653 subjects to be included in the analysis of this variable.

A principal components analysis of this scale resulted in eight factors with eigenvalues greater than one. Two of these factors contained only two items or less and were, therefore, not considered as interpretable. A second factor analysis was run with a varimax rotation and a six-factor solution. Together the six factors accounted for 51% of the variance in the analysis (see Appendix D, Table D-2). The first five factors attained closely resembled those described by the authors of the scale: 1) independence/ competence, 2) angry/needy/lonely, 3) trust, 4) help, and 5) guilt. The sixth factor was represented by only two items that were related to relationships ("emotional relations are hard" and "sexual relations are hard"). The mental health factor found by Burt and Katz did not appear distinct from the other factors; this is not too surprising as many of its items loaded on the independence factor. However, given the

great similarity between the other five factors and the original factors, the original six dimensions were retained for this study.

Subscale means, standard deviations, and internal consistency reliabilities are presented in Table 8. Comparison of the mean scores to those attained by sexual assault victims in the study by Burt and Katz (1987) was not possible due to the different systems of scaling used in the two studies.

Social Support

A total of 640 subjects completed the Provisions of Social Relations (PSR) scale (Turner et al., 1983). As with other scales, missing values for the remaining 13 subjects were replaced by overall item-means. Subscale means, standard deviations, and internal consistency reliabilities are presented in Table 8. Normative scores on the subscales of the PSR were not available for comparison.

A principal components analysis with varimax rotation resulted in three factors. The first two factors together accounted for 48% of the variance and were nearly identical to the original support from friends and support from family subscales. The only unique items on the third factor were two items (items 3 and 12) whose wording was vague and did not specify either family or friends (e.g., item 3: "people who know me trust me and respect me").

A two-factor solution factor analysis was subsequently

performed on the PSR. The resulting factors were identical to those specified by Turner et al. (1983) with item 3 and 12 loading on the support from friends factor. The two original subscales were used for all further analyses.

Coping with Child Maltreatment

Three scales were to be completed only by those subjects who had responded affirmatively to items on any of the three child maltreatment scales. Subjects were requested to answer the ensuing scales with regard to the "experience that seems most significant to you now". Overall, 302 subjects identified the type of maltreatment they were planning to respond to: 61 (80% of CSA) answered with regard their child sexual abuse experiences, 64 (70% of ASA) answered with regard their adolescent sexual abuse experiences, and 177 (41% of CPM) answered for their physical maltreatment experiences.

Although subjects had been clearly instructed to complete the next three scales if they had affirmed any of the preceding questions on childhood experiences, missing data among these subjects was substantial on the three questionnaires. A visual examination of the data revealed that most of the missing data was not random but occurred as entire questionnaires being omitted. All three questionnaires were left blank by 121 of the maltreated subjects and another 21 subjects omitted either one or two of the three scales. It appeared that these subjects had

either mistakenly gone on to the following section in the questionnaire or had intentionally chosen to omit the scales that specifically investigated their feelings about their childhood experiences. For the 15 cases which had relatively few missing data points that were randomly scattered among responses, item-means were substituted for missing values. For the remaining subjects, when an entire scale was left blank or when more than half of the items on a scale were omitted, the subject was not included in the analysis of that scale.

"How I deal with things" Scale

Following the above treatment of missing values, data from 279 subjects were available for the analysis of the "How I deal with things" scale (Burt & Katz, 1987). The overall mean for this group of subjects was 58.78 (*SD* = 18.01). Due to the alterations that were made in the wording of the scale a factor analysis was performed to determine if the original factor structure of the scale was appropriate with regard to abusive childhood experiences.

For comparison purposes a principal components extraction with equamax rotation (as used by Burt and Katz) was conducted on the 29-item scale (see Appendix D, Table D-3). As all five of the original subscales appeared within the present factor analysis (with nearly identical item composition) the original subscales delineated by Burt and Katz were used in subsequent analyses. See Table 8 for

subscale means, standard deviations, and internal consistency reliabilities.

Impact of Events Scale

The Impact of Events scale (Horowitz et al., 1979) was completed by 293 subjects. A principal components analysis with varimax rotation produced two factors that were nearly identical to the intrusion and avoidance subscales described by the authors of the scale. The two factors cumulatively accounted for 64% of the variance in the analysis. The two original subscales were, therefore, used in subsequent analyses. Subscale statistics are presented in Table 8.

Compared to the scores attained by a non-clinical field sample of adult volunteers with a recently deceased parent (Zilberg et al., 1982), the group of maltreated subjects in the present sample evidenced similar intrusion scores (M = 11.72 versus M = 13.5, SD = 9.1 for the field sample) yet much higher avoidance scores (M = 14.92 versus M = 9.4, SD = 9.6 for the field sample). The maltreated subjects' scores in this study were consistently lower than those attained by a sample of adult outpatients who sought treatment to cope with the death of a parent (i.e., intrusion, M = 21.02, SD = 7.9; avoidance, M = 20.8, SD = 10.2).

Recovery from Abuse Scale

This 25-item scale was designed for use in the current study in order to specifically measure recovery from child maltreatment. Complete data were available for 274

subjects. Detailed statistical analysis of the scale determined that it measured three distinct styles with which survivors of child maltreatment deal with their experience.

A principal components analysis with varimax rotation was performed on the data from 274 subjects. The initial run resulted in six factors with eigenvalues greater than one and that together accounted for 56% of the variance. An examination of the scree plot and the rotated factor loadings suggested that four factors would better define the data. The analysis was rerun with a four-factor solution, however, the fourth factor was not interpretable due to being comprised of only two unique items. Therefore, a three-factor solution was found to most satisfactorily describe the dimensionality of the scale (see Appendix D, Table D-4).

Factor 1 accounted for 22% of the variance and is made up of eight items that contribute to a dimension of detachment and isolation. The second factor accounted for 11% of the variance, is made up of nine items, and can be characterized as an upset and highly emotional response set. Factor 3 accounted for 8% of the variance and is comprised of seven items that describe the approach of someone who approaches life as a survivor (rather than a victim) of earlier negative experiences. Subscale means, standard deviations, and internal consistencies (Cronbach's alpha) can be found in Table 8.

Inferential Data Analysis

Inferential statistical analysis of the data was carried out in two parts. The first set of analyses examined the influence of child sexual abuse, adolescent sexual abuse, child physical maltreatment, and subject sex on coping and adjustment variables. The second set of analyses were designed to explore the effectiveness of various coping strategies and social support in acting as mediators of negative adjustment among those with a childhood history of maltreatment.

The statistical procedures used for these analyses were canonical correlation followed by multiple regression. Canonical correlation analysis is a multivariate statistical technique that allows the researcher to investigate the types and number of relationships ("variates") between two sets of variables, both in terms of each variable's unique contribution to the overall relationship, and in terms of their common or combined connections with one another (Stevens, 1986). The magnitude of the standardized coefficients describe the unique contribution of each variable while the structure coefficients (or correlations between the variables and the canonical variates) represent their overlapping contribution to the overall relationship.

Hypothesis One

Hypothesis one predicted that both physical and sexual abuse during childhood would be associated with higher

current levels of psychological symptomatology and poorer self-concept. No sex differences in symptomatology or self-concept were predicted. The hypothesis was tested by a canonical correlation analysis of a set of subject variables (CSA, ASA, CPM, and subject sex) versus a set of adjustment variables (GSI, self-esteem, and the six self-concept variables). Following the appearance of a significant canonical correlation, post-hoc multiple regressions were carried out with the subject variables regressed upon the adjustment variables.

Six-hundred and fifty-one subjects were used in the canonical correlation analysis of child maltreatment and adjustment. The overall canonical analysis was significant (F (32,2568) = 3.49, $p<.000$) and resulted in one significant canonical correlation (Rc = .33, F (32,2358.11) = 3.56, $p<.000$) that accounted for 11% of the variance in the analysis. See Table 9 for the canonical correlation analysis.

The results of the canonical analysis indicate support for most of hypothesis one. An examination of the correlations between the variables and the canonical variates suggests that there is an overall relationship between female subjects with high scores on all three maltreatment variables and high symptomatology, high anger and neediness, high guilt, and low self-esteem.

Due to the large number of tests conducted, an adjusted

Table 9

Canonical Correlation of Child Abuse with Psychological Adjustment and Self-Concept

	Canonical Variate	
	Corr.	Coeff.
Dependent Variables		
GSI	.82	.72
Self-esteem	-.68	-.69
Angry/Needy	.41	-.12
Independent	-.09	.72
Mental Health	-.23	.11
Trust	-.18	-.08
Seek Help	-.22	-.16
Guilt	.35	.17
Percent Variance	19.67	
Redundancy	2.12	
Covariates		
CSA	.35	.20
ASA	.34	.19
CPM	.87	.82
Sex	-.41	-.36
Percent Variance	29.18	
Redundancy	3.14	
Canonical R	.33	

Note. N=651. CSA = Child Sexual Abuse; ASA = Adolescent Sexual Abuse; CPM = Child Physical Maltreatment; Sex (1=female, 2=male).

significance level of $p<.002$ was used (e.g., $p<.05/32=.002$) for the post-hoc multiple regression analyses (see Table 10). While there were no significant relationships apparent for either of the sexual abuse variables, extent of physical maltreatment was significantly related to six of the eight adjustment variables beyond the $p=.002$ level. That is, physical maltreatment was associated with higher scores on GSI, anger and neediness, and guilt, as well as lower scores on self-esteem, mental health, and help seeking. There was also a trend toward significance for a relationship between child physical maltreatment and low levels of independence ($p=.009$) and trust ($p=.004$). Overall differences between the sexes also appeared with females having higher scores on seeking help. There were also trends for higher mental health ($p<.02$), trust ($p<.04$), and independence ($p=.003$) scores among female subjects.

Hypothesis Two and Three

Hypothesis two predicted that child maltreatment would be related to low self-efficacy, low perceived social support, and a locus of control characterized by a belief in the control of powerful others and chance. Hypothesis three predicted that child maltreatment would be positively associated with avoidance and negatively associated with active-cognitive and active-behavioural methods of coping with a recent stressful situation. As previously reported, the factor analysis of the Coping Resources Scale determined

Table 10

Multiple Regression of Child Abuse and Subject Sex on Psychological Adjustment and Self-concept

	Standardized Regression Coefficients			
	CSA	ASA	CPM	Sex
Dependent Variables				
GSI	.02	.05	.26**	-.06
Self-esteem	-.03	-.04	-.22**	.02
Angry/Needy	-.01	.02	.17**	.02
Independent	.04	-.01	-.10*	-.12*
Mental Health	.02	-.02	-.13**	-.09*
Trust	.02	.00	-.11*	-.08*
Seek Help	-.03	-.03	-.13**	-.15**
Guilt	-.04	.04	.13**	-.01

Note. N = 651. *$p<.05$; **$p<.002$ (.05/32=.002). CSA = Child Sexual Abuse; ASA = Adolescent Sexual Abuse; CPM = Child Physical Maltreatment; Sex (1=female, 2=male).

that the above dimensions were not reflected in the current data. The new subscales (i.e., active/objective coping, worried/angry, and reliance on others) were used instead along with locus of control, social support, and self-efficacy versus child maltreatment and subject sex in a canonical correlation analysis of 651 subjects.

The overall canonical analysis was significant (F (40,2560) = 5.44, p<.000) and resulted in two independent significant canonical correlations (Rc = .39, F (40,2417.28) =5.57, p<.000; and Rc =.35, F (27,1863.93) = 4.20, p<.000). The first and second canonical correlations accounted for 15% and 12%, respectively, of the variance in the analysis. See Table 11 for the canonical correlation results.

Examination of the correlations between the variables and the canonical variate for the first canonical variate pair indicated an association between high levels of physical maltreatment among male subjects and low general and social self-efficacy as well as less social support from family and friends. These same maltreated male subjects also tended to rely less on others and to be less worried or angry with regard to coping current problems. The second set of variates shows an association between females with high levels of both physical maltreatment and child sexual abuse, and lack of support from family, lack of an internal locus of control, plus a tendency to be worried or angry while coping with current problems.

Table 11

Canonical Correlation of Child Abuse and Sex with Self-Efficacy, Locus of Control, Social Support, and Coping

	Canonical Variate			
	1		2	
	Corr.	Coeff.	Corr.	Coeff.
Dependent Variable				
General Efficacy	-.21	.08	-.13	.13
Social Efficacy	-.42	-.18	.08	.09
Internal Locus	.01	.15	-.30	-.24
Power Locus	.27	.27	.03	-.21
Chance Locus	.09	-.15	.25	.24
Family Support	-.66	-.49	-.69	-.91
Friend Support	-.54	-.22	.14	.52
Active/Objective	-.19	-.04	-.18	-.17
Worried/Angry	-.45	-.41	.38	.36
Rely on Others	-.61	-.41	.14	.14
% Variance	16.30		8.60	
Redundancy	2.43		1.03	
Covariates				
CSA	-.01	.04	.43	.31
ASA	-.10	-.09	.12	-.04
CPM	.43	.46	.85	.82
Sex	.89	.89	-.44	-.40
% Variance	24.65		28.08	
Redundancy	3.68		3.36	
Canonical R	.39		.35	

Note. N = 651. Sex (1=female, 2=male).

Post-hoc multiple regression analyses indicated a specific significant association between adolescent sexual abuse and a tendency to be active and objective when coping with current problems (p=.001). There was a trend toward significance for the relationship between child sexual abuse and low support from family (p=.04). Child physical maltreatment was strongly related to low family support (p=.000) and there were trends toward significance for low general self-efficacy (p=.02), low internal locus of control (p=.02), chance locus of control (p=.03), low active and objective coping (p=.03), and low reliance on others (p=.02). Overall sex differences appeared, with females having higher levels ($p\leq$.001) of the following: social self-efficacy, support from family and friends, as well as a tendency to rely on others and to be worried and angry when coping with a current problem. There was a trend for males to show greater endorsement of a locus of control characterized by a belief in the control of powerful others (p=.03). See Table 12 for the multiple regression results.

Hypothesis Four

This hypothesis explored the relationship between type of maltreatment experienced and the manner in which subjects coped with their childhood experiences. Hypothesis four predicted that reliance on coping strategies would increase with the extent of child maltreatment. It was also predicted that males would be more likely than females to

Table 12

Multiple Regression of Child Abuse and Sex on Self-Efficacy, Locus of Control, Social Support, and Coping

	Standardized Regression Coefficients			
	CSA	ASA	CPM	Sex
Dependent Variables				
General Efficacy	.03	.01	-.09*	-.05
Social Efficacy	.03	.04	-.07	-.14**
Internal Locus	-.00	.03	-.09*	.06
Power Locus	-.00	-.03	.06	.09*
Chance Locus	.02	.02	.09*	.00
Family Support	-.08*	.02	-.31**	-.13**
Friend Support	.05	.00	-.07	-.20**
Active/Objective	-.03	.13**	-.09*	-.02
Worried/Angry	-.05	.07	.06	-.22**
Rely on Others	.07	-.05	-.09*	-.23**

Note. N = 651. *p<.05; **p<.001 (.05/40=.001). CSA = Child Sexual Abuse; ASA = Adolescent Sexual Abuse; CPM = Child Physical Maltreatment; Sex (1=female, 2=male).

use avoidance and less likely to use expressive methods of coping with their childhood experiences. Only the subjects who endorsed the child maltreatment items and completed the three questionnaires that focused on their childhood experiences, were used in this analysis. Two-hundred and ninety-two subjects were available for this analysis.

A canonical correlation analysis was conducted between the set of subject variables (i.e., CSA, ASA, CPM, and subject sex) and the set of coping variables (i.e., Impact of Events, Recovery from Abuse, and "How I deal with things" scale). The overall canonical analysis was significant (F (40,1124) = 3.81, p=.000) and resulted in two independent, significant canonical correlations (Rc = .48, F (40,1056) = 3.92, p=.000; and Rc = .39, F (27,815.47) = 2.85, p=.000).

An examination of the correlations between the variables and the canonical variate for the first canonical variate pair suggests an association between all three types of maltreatment among female subjects and endorsement of eight of the ten coping variables in the equation (see Table 13). The second set of variates showed an association between females with only a history of child sexual abuse, and low self-destructive coping, low intrusive thoughts, and a tendency to see oneself as a survivor.

Post-hoc multiple regression analyses indicate specific patterns of coping associated with the three types of maltreatment (see Table 14). Higher levels of child sexual

Table 13

Canonical Correlation of Child Abuse and Sex with Impact of Events, Recovery from Abuse, and "How I deal with things"

	Canonical Variate			
	1		2	
	Corr.	Coeff.	Corr.	Coeff.
Dependent Variables				
Intrusive thoughts	.79	.62	-.44	-1.11
Avoidance	.67	.24	.12	.82
Detached	.21	-.26	-.02	-.32
Survivor	.37	.19	.44	.40
Upset/emotional	.60	.45	.08	.48
Expressive	.59	.60	.14	.07
Nervous/Anxious	.45	-.34	-.23	-.06
Avoidant Behaviour	.44	-.14	.09	.30
Self-destructive	.26	.22	-.36	-.30
Cognitive	.49	-.29	-.15	-.22
% Variance	26.62		6.45	
Redundancy	6.14		1.00	
Covariates				
CSA	.41	.30	.34	.32
ASA	.46	.37	-.58	-.66
CPM	.60	.58	-.38	-.37
Sex	-.64	-.56	-.59	-.62
% Variance	28.86		23.67	
Redundancy	6.65		3.65	
Canonical R	.48		.39	

Note. N = 292.

Table 14

Multiple Regression of Child Abuse and Subject Sex on Impact of Events, Recovery from Abuse, and "How I deal with things"

	Standardized Regression Coefficients			
	CSA	ASA	CPM	Sex
Dependent Variables				
Intrusive thoughts	.05	.25**	.29**	-.11*
Avoidance	.11	.11	.14*	-.22**
Detached	.16*	-.01	.11	.04
Survivor	.13*	-.05	.04	-.20**
Upset/emotional	.18**	-.01	.25**	-.10
Expressive	.06	.06	.16*	-.21**
Nervous/Anxious	.02	.11	.19**	-.07
Avoidant Behaviour	.07	.06	.10	-.14*
Self-destructive	.06	.16*	.11	.05
Cognitive	.03	.08	.21**	-.09

Note. N = 292. *p<.05; **p<.001; (.05/40=.001). CSA = Child Sexual Abuse; ASA = Adolescent Sexual Abuse; CPM = Child Physical Maltreatment; Sex (1=female, 2=male).

abuse were linked to greater feelings of upset regarding the abuse ($p \leq .001$) and there was a trend for an association between CSA and detachment ($p=.008$) and seeing oneself as a survivor ($p=.03$). Extent of adolescent sexual abuse was significantly related to more intrusive thoughts ($p \leq .001$) and there were trends for ASA and avoidance of thoughts about the maltreatment ($p=.05$) and self-destructive behaviour ($p=.008$). Extent of physical maltreatment was significantly associated ($p \leq .001$) with more intrusive thoughts, greater feelings of upset about the maltreatment, plus nervous/anxious and cognitive coping styles. There was a trend for an association between extent of CPM and avoidance of thoughts about the maltreatment ($p=.01$) and the use of expressive coping ($p=.006$). Female subjects who endorsed the maltreatment items tended to show greater avoidance of thoughts about the maltreatment, to use expressive means of coping, and to see themselves as survivors. There were also trends for more intrusive thoughts ($p=.04$) and greater avoidant coping among maltreated female subjects ($p=.02$).

Hypothesis Five

Hypothesis five predicted that among those who endorsed the child maltreatment items, lack of social support plus the use of avoidance coping, cognitive strategies, nervous/anxious behaviour, and self-destructive behaviour would be associated with greater psychological

symptomatology and poorer self-concept. Expressive forms of coping were expected to be related to lower levels of symptoms and more positive self-concept.

Three-hundred and one subjects were used in this canonical correlation analysis. The two sets of variables involved included a social support and coping set versus an adjustment and self-concept set. The first set included the two social support variables (support from friends and family), the five coping scales from the "How I deal with things" scale (expressiveness, avoidance, nervous/anxious behaviour, self-destructive behaviour, and cognitive coping strategies), plus the three child maltreatment variables and subject sex. Subject sex and child maltreatment were included in this analysis in order to determine whether sex or extent and type of maltreatment influenced the relationship between coping style and adjustment within this group of maltreated subjects. The second set of variables included the GSI, self-esteem, and the six self-concept subscales form the "How I see myself now" scale.

The overall analysis was significant (F (88,2312) = 4.38, p<.000). The analysis resulted in three interpretable significant canonical correlations (Rc = .77, (F (88,1858.66) = 5.42, p<.000; Rc = .45, (F (70,1656.98) = 2.49, p<.000; and Rc = .36, (F (54,1452.72) = 1.96, p<.000). Although the fourth canonical correlation was statistically significant (after the first three correlations were

removed) it accounted for only 8% of the variance and was, therefore, not interpreted. Tabachnick and Fidell (1983) recommend that canonical correlations of less than .30 not be interpreted, even if significant, given the small amount of variance accounted for by a correlation of that size and the fact that significance often depends on the size of the sample. This convention will be followed for all subsequent canonical analyses. See Table 15 for the results of the canonical correlation analysis.

Examination of the correlations between the variables and the first canonical variate indicated that a lack of family and friend support plus the use of nervous coping, avoidant coping, and self-destructive coping was associated with greater symptomatology and poorer self-concept regardless of subject sex or extent and type of maltreatment. This canonical correlation accounted for 59% of the variance in the overall analysis.

The second canonical variate pair indicated a relationship between nervous, avoidant, cognitive, and self-destructive coping among female subjects with high family support and the presence of high symptomatology, anger, and guilt. The third set of variates showed an association between high friend support, lack of family support, plus the use of expressive coping among females with a history of physical maltreatment and the presence of high symptoms, low self-esteem, high independence, trust, and ability to seek

Table 15

Canonical Correlation of Abuse, Sex, Coping, and Social Support with Psychological Adjustment and Self-Concept

	Canonical Variate					
	1		2		3	
	Corr.	Coeff.	Corr.	Coeff.	Corr.	Coeff.
Dependent Variables						
GSI	.59	-.04	.56	.85	.38	.41
Self-esteem	-.87	-.48	.09	.85	-.34	-.88
Angry/Needy	.83	.49	.35	-.21	.01	-.24
Independent	-.78	-.04	-.14	-.16	.46	1.09
Mental Health	-.84	.04	-.15	.07	.28	-.27
Trust	-.71	.06	-.13	-.49	.35	.03
Seek Help	-.79	-.44	.04	.64	.40	.27
Guilt	.64	-.15	.53	.80	-.07	.06
% Variance	58.06		9.77		10.61	
Redundancy	34.80		1.98		1.38	
Covariates						
CSA	.04	.04	-.15	-.17	.29	.12
ASA	.02	.02	.13	-.02	.12	.04
CPM	.22	.08	.15	.28	.43	.25
Sex	.01	-.13	-.40	-.33	-.62	-.52
Expressive	-.16	-.26	.26	-.25	.49	.44
Nervous	.43	.13	.51	.49	.18	.03
Avoidant	.44	.19	.52	.44	.15	-.03
Self-destruct	.62	.34	.45	.14	-.08	-.07
Cognitive	.25	-.08	.35	-.17	.17	-.24

(table continues)

Table 15 (continued)

	Canonical Variate					
	1		2		3	
	Corr.	Coeff.	Corr.	Coeff.	Corr.	Coeff.
Family Support	-.68	-.35	.52	.71	-.41	-.58
Friend Support	-.77	-.49	.21	.07	.32	.36
% Variance	17.82		13.35		11.63	
Redundancy	10.68		2.70		1.52	
Canonical R	.77		.45		.36	

Note. N = 301. CSA = Child Sexual Abuse; ASA = Adolescent Sexual Abuse; CPM = Child Physical Maltreatment; Sex (1=female, 2=male).

help. The second and third canonical correlations accounted for 20% and 13%, respectively, of the variance in the overall analysis.

Post-hoc multiple regression analyses indicated that within this group of maltreated subjects only the extent of physical maltreatment continued to have influence on other variables (i.e., higher GSI scores). Subject sex also influenced the analysis as maltreated women had higher GSI and anger and lower self-esteem than did men. While the support of friends was consistently related to better adjustment (i.e., high self-esteem and self-concept), support from family was particularly important to subjects' self-esteem.

Expressive coping was associated with greater independence, mental health, and trust (all at $p<.001$) with trends toward significance for high self-esteem, and low anger and guilt. Avoidant behaviour was linked with feelings of guilt, while self-destructive behaviour was related to higher anger and guilt and an inability to ask for help. There were trends toward significance that suggested that nervous/anxious coping and cognitive strategies also tended to be less adaptive means of coping (see Table 16).

Hypothesis Six

Hypothesis six predicted that nervous/anxious coping, avoidance, self-destructive behaviour, and cognitive

Table 16

Multiple Regression of Abuse, Sex, Coping, and Social Support on Psychological Adjustment and Self-Concept

	Dependent Variables			
	GSI	S-Est.	Angry	Indep.
Standardized Regression Coefficients				
CSA	.01	-.04	-.03	.02
ASA	.03	-.01	-.02	-.00
CPM	.19**	-.06	.04	-.02
Sex	-.19**	.16**	-.15**	.02
Expressiveness	-.13	.16*	-.18*	.30**
Nervous/Anxious	.24*	-.12	.19*	-.20*
Avoidant Behaviour	.17*	-.16*	.11	-.19*
Self-destructive	.19*	-.15*	.23**	-.15*
Cognitive	-.19*	.11	.01	.09
Family Support	-.05	.35**	-.13*	.08
Friend Support	-.14*	.28**	-.32**	.33**

Note. N = 301. *$p<.05$; **$p<.001$; (.05/88=.001). CSA = Child Sexual Abuse; ASA = Adolescent Sexual Abuse; CPM = Child Physical Maltreatment; Sex (1=female, 2=male); S-est. = Self-esteem; Indep. = Independence.

(table continues)

Table 16 (continued)

	Dependent Variables			
	MHlth.	Trust	Help	Guilt
Standardized Regression Coefficients				
CSA	.02	-.02	-.04	-.05
ASA	-.02	-.02	-.06	-.01
CPM	-.04	-.07	-.08	.05
Sex	.06	.07	-.03	-.13*
Expressiveness	.25**	.28**	.19*	-.16*
Nervous/Anxious	-.20*	-.11	.06	.06
Avoidant Behaviour	-.15*	-.16*	-.17*	.28**
Self-destructive	-.20*	-.12	-.30**	.25**
Cognitive	.10	.02	.08	-.05
Family Support	.13*	.03	.12*	-.02
Friend Support	.35**	.36**	.34**	-.21**

Note. N = 301. *$p<.05$; **$p<.001$; (.05/88=.001). CSA = Child Sexual Abuse; ASA = Adolescent Sexual Abuse; CPM = Child Physical Maltreatment; Sex (1=female, 2=male); MHlth. = Mental Health.

strategies would be associated with lower self-efficacy and a locus of control based on chance and powerful others. The presence of social support and the use of expressive coping strategies were expected to be related to greater self-efficacy and an internal locus of control among maltreated subjects.

In this canonical analysis, the five subscales of the "How I deal with things" scale (expressiveness, cognitive, nervous/anxious, self-destructive, and avoidance coping) were entered as a set (along with subject sex and the three maltreatment variables) opposite the two self-efficacy variables (general and social self-efficacy) and the three locus of control variables (internal, powerful others, and chance). Three-hundred and one maltreated subjects were employed in this analysis.

The overall canonical analysis was significant (F (55,1455) = 3.15, $p<.000$) and resulted in two independent, significant canonical correlations (Rc = .57, F (55,1322.79) = 3.40, $p<.000$; Rc = .32, F (40,1086.33) = 1.62, $p=.009$) that accounted for 32% and 10% of the variance, respectively. See Table 17 for the results of the analysis.

An examination of the correlations between the variables and the first canonical variate indicated that nervousness, self-destructive behaviour, and low social support were associated with a locus of control characterized by a belief in chance and powerful others as

Table 17
Canonical Correlation of Child Abuse, Subject Sex, Coping, and Social Support with Self-Efficacy and Locus of Control

	Canonical Variate 1		Canonical Variate 2	
	Corr.	Coeff.	Corr.	Coeff.
Dependent Variable				
General Efficacy	-.81	-.37	-.09	-.16
Social Efficacy	-.82	-.53	-.17	-.14
Internal Locus	-.65	-.28	.60	.99
Power Locus	.50	-.01	.49	.57
Chance Locus	.54	.16	.32	.24
Percent Variance	45.96		15.01	
Redundancy	14.88		1.51	
Covariates				
CSA	-.07	-.02	-.14	-.17
ASA	-.11	-.06	.06	.05
CPM	.17	.07	-.21	-.20
Sex	.08	-.11	.31	.47
Expressiveness	-.29	-.37	.46	.90
Nervous/Anxious	.31	.27	.26	-.60
Avoidant Behaviour	.26	.10	.58	.73
Self-Destructive	.43	.11	.35	.44
Cognitive	.10	-.08	.30	-.47
Family Support	-.66	-.29	.14	.23
Friend Support	-.87	-.62	-.19	-.30
Percent Variance	15.35		9.53	
Redundancy	4.97		.96	
Canonical R	.57		.32	

well as by low general and social self-efficacy and a lack of an internal locus of control. The second set of variates suggested a relationship between expressiveness, avoidance, self-destructive behaviour, and cognitive coping among male subjects and the presence of an internal locus of control and a powerful others locus of control.

The post-hoc multiple regression analyses indicated that extent and type of maltreatment did not contribute additionally to the analysis (see Table 18). Expressive coping was related to an internal locus of control and family and friend support were related to greater self-efficacy. There were trends that suggested that nervous/anxious coping was associated with the lack of an internal locus of control, that males were more likely to have an internal locus of control, that cognitive coping was related to general self-efficacy, and that avoidant coping was related to a powerful others and chance locus of control.

Hypothesis Seven

The predictions of hypothesis seven were based on the Recovery from Abuse scale that was developed especially for this study. It was expected that certain attributes and behaviours that would characterize a person who approached life as a "survivor" rather than a victim would be associated with positive mental health (i.e., low symptomatology and positive self-concept). This dimension

Table 18

Multiple Regression of Abuse, Sex, Coping, and Social Support on Self-efficacy and Locus of Control

	Dependent Variables				
	Gen.Eff.	Soc.Eff.	Int.	Power	Chance
Standardized Regression Coefficients					
CSA	.05	.01	-.04	-.01	.00
ASA	.01	.05	.04	-.03	.02
CPM	.03	-.04	-.08	.02	.03
Sex	.04	-.02	.17*	.01	-.08
Expressiveness	.09	.13	.34**	.00	-.08
Nervous/Anxious	-.14	-.04	-.22*	-.05	.11
Avoidant	-.07	-.05	.07	.18*	.18*
Self-destructive	-.10	-.02	.01	.14	.11
Cognitive	.21*	-.05	-.07	-.05	-.10
Family Support	.20**	.09	.14*	-.03	-.03
Friend Support	.26**	.36**	.15*	-.19*	-.17*

Note. N = 301. *$p<.05$; **$p<.001$, (.05/55=.001). CSA = Child Sexual Abuse; ASA = Adolescent Sexual Abuse; CPM = Child Physical Maltreatment; Sex (1=female, 2=male); Gen. Eff. = General Self-efficacy; Soc. Eff. = Social Self-efficacy; Int. = Internal Locus.

of recovery corresponds to the survivor factor of the scale. The hypothesis also implies that those who either were obsessed with thoughts of their maltreatment (upset about abuse factor) or who were attempting to suppress such thoughts (detached factor) would suffer from greater symptomatology and poorer self-concept. Two-hundred and ninety-seven subjects were used in this analysis.

The overall canonical correlation was significant (F (56,2016) = 3.91, p<.000) and resulted in three significant canonical correlations (Rc = .59, F (56,1523.93) = 4.30, p<.000; and Rc = .39, F (42,1330.84) = 2.49, p<.000); Rc = .31, F (30,1138) = 1.80, p=.005). The three canonical correlations accounted for 35%, 15%, and 10% of the variance, respectively. See Table 19 for the results of the canonical correlation analysis.

Examination of the correlations between the variables and the first canonical variate indicated that high scores on the detached and upset/emotional factors among those with high physical maltreatment were related to high GSI, anger, and guilt, and low self-esteem, independence, mental health, trust, and seeking help. The second set of variates indicated that females who endorsed the survivor dimension also tended to show high independence, mental health, trust, and help seeking, as well as higher GSI scores. The third set of variates showed that victims of child sexual abuse who were currently highly upset about the maltreatment

Table 19

Canonical Correlation of Child Abuse, Sex, and Recovery from Abuse with Psychological Adjustment and Self-concept

	Canonical Variate					
	1		2		3	
	Corr.	Coeff.	Corr.	Coeff.	Corr.	Coeff.
Dependent Variables						
GSI	.76	.29	.30	.60	-.03	.21
Self-esteem	-.90	-.58	.07	-.28	.00	-.46
Angry/Needy	.73	.26	-.10	.10	-.54	-1.41
Independent	-.64	.19	.67	.61	.19	1.24
Mental Health	-.70	.23	.60	.82	.07	-1.20
Trust	-.67	-.18	.54	-.04	.05	.09
Seek Help	-.70	-.39	.50	-.02	-.19	-.61
Guilt	.56	-.08	-.07	.26	-.39	.09
% Variance	51.07		18.13		6.59	
Redundancy	17.99		2.82		.63	
Covariates						
CSA	.12	-.02	.26	-.11	.36	.51
ASA	.09	.05	.13	.09	.23	.21
CPM	.39	.25	.29	.30	.22	.40
Sex	-.12	-.20	-.56	-.41	.19	.10
Detachment	.83	.78	.18	.08	.04	.46
Survivor	-.17	-.40	.86	.75	-.21	-.31
Upset	.67	.24	.05	-.19	-.58	-.99
% Variance	19.33		17.89		9.36	
Redundancy	6.81		2.79		.89	
Canonical R	.59		.39		.31	

Note. N = 297.

tended to also feel more guilt and to be more angry and needy.

The post-hoc multiple regression analyses showed that coping with one's maltreatment experience by being detached was consistently associated with higher levels of symptoms and poorer self-concept. Those who were highly upset about their maltreatment were also more angry and needy and there were trends for these individuals to be less independent, less trusting, to have poorer mental health, and feel greater guilt. Those who endorsed the survivor dimension also showed fewer negative symptoms and had better self-concept overall. See Table 20 for the details of the multiple regression analyses.

Table 20

Multiple Regression of Child Abuse, Sex, and Recovery from Abuse on Psychological Adjustment and Self-Concept

	Dependent Variables			
	GSI	S-Est.	Angry	Indep.
Standardized Regression Coefficients				
CSA	-.03	.01	-.11*	.08
ASA	.07	.02	.00	.01
CPM	.18**	-.11*	.05	.00
Sex	-.18**	.12*	-.10	-.01
Detachment	.32**	-.44**	.24**	-.25**
Survivor	-.12*	.25**	-.16*	.34**
Upset/emotional	.10	-.11	.28**	-.19*

	Dependent Variables			
	MHlth.	Trust	Help	Guilt
Standardized Regression Coefficients				
CSA	.06	.04	.00	-.09
ASA	-.01	-.00	-.05	.02
CPM	-.05	-.04	-.07	.03
Sex	.03	.05	-.06	-.10
Detachment	-.27**	-.27**	-.33**	.19*
Survivor	.37**	.35**	.30**	-.14*
Upset/emotional	-.17*	-.14*	-.09	.20*

Note. N = 297. *$p<.05$; **$p<.001$, (.05/56=.001). Sex (1=female, 2=male); MHlth=Mental Health; S-est=Self-esteem.

DISCUSSION

Research has determined that childhood experiences of physical maltreatment and sexual abuse have been linked to numerous negative psychosocial difficulties that are often evident in adolescence and early adulthood. Previously identified long-term correlates of child maltreatment were confirmed by the current study and extended to include a number of variables not previously studied within this population. A number of psychosocial adjustment variables were found to be related to child maltreatment in general, and differential patterns of coping strategies were found to be specific to various forms of child maltreatment. While some similarities appeared, it was also demonstrated that specific patterns of coping and adjustment were present for each of the three types of maltreatment measured: child sexual abuse, adolescent sexual abuse, and child physical maltreatment. Beyond the indications of specific psychological correlates for each type of maltreatment, there were findings that suggested a possible mechanism through which individuals with early trauma develop either adaptive or maladaptive patterns of adjustment. That is, the manner in which an individual copes with an early experience of maltreatment may serve to protect against the many potentially negative long-term sequelae of child maltreatment.

The Relationship Between Child Maltreatment and Psychosocial Adjustment and Coping

It has been established by previous research that maltreatment during childhood has long-lasting effects on the victim's psychological adjustment, mental health, and social functioning (see Browne & Finkelhor, 1986). This study determined that there were unique and shared relationships between the three forms of child maltreatment and the personality, coping, and adjustment variables. As predicted, higher levels of child maltreatment were linked with greater psychiatric symptomatology and PTSD, poorer self-esteem and self-concept, lower self-efficacy, impaired social support, and an external locus of control (i.e., belief in the importance of powerful others and chance). While these predictions were supported overall, it was primarily child physical maltreatment that appeared to have the greatest influence on the subject's current level of functioning.

Beyond the general relationship that appeared between all three forms of child maltreatment and adjustment, the extent of physical maltreatment was a particularly strong predictor of many facets of poor adjustment. In particular, the greater the frequency of physical maltreatment, the greater the psychological distress, feelings of anger and neediness, guilt, and difficulty in asking for help from others, and the poorer the subjects' self-esteem and general

mental health.

The finding of greater psychological distress among those subjects who had been physically maltreated by their parents is consistent with the literature. In comparison to others, greater psychological and emotional disturbance has been found among physically abused children (Friedrich & Einbender, 1983; Gelardo & Sanford, 1987) as well as among adult survivors of child physical abuse (Briere & Runtz, 1988a). Specifically, physical abuse tends to be associated with greater depression and hopelessness (Kazdin et al., 1985) and anxious attachment (Farber & Egeland, 1987) in children and greater depression among adults who were abused as children (Briere & Runtz, 1988a; Cole, 1986; Runtz, 1987). In this study, physical maltreatment was connected to a higher global score of psychological symptomatology that included depression as well as anxiety, paranoia, somatization, etc.

The relationship between physical abuse and poor self-concept is also one that has been demonstrated among children (Egeland, Sroufe, & Erickson, 1983; Kazdin et al., 1985; Martin & Beezley, 1977; Oates, Forrest, & Peacock, 1985). The research regarding adults maltreated as children and self-esteem, however, has been less definitive. For example, while Cole (1986) found that adult victims of child physical abuse had particularly low self-esteem, a similar pattern has failed to appear in other studies (e.g., Briere

& Runtz, 1988a; Runtz, 1987). In the current sample, the fact that physically maltreated subjects had lower self-esteem as well as problems in a number of other areas of self-concept suggests the possibility that the influence of physical maltreatment during childhood can be pervasive even a number of years after the original experience. Evidence of anger problems among victims of physical maltreatment was expected as aggressive behaviour has been well documented among child victims of battery (Egeland, 1989; George & Main, 1979; Reidy, 1977) and adult survivors of physical abuse (Briere & Runtz, 1990b; Kroll, Stock, & James, 1985; McCord, 1983).

Also apparent were predicted associations between the extent of physical maltreatment and self-efficacy, locus of control, social support, and style of coping with current problems. Again, the relationships between child physical maltreatment and these variables far exceeded those occurring with either type of sexual abuse. Those subjects with higher scores on child physical maltreatment were found to have lower general self-efficacy plus significant deficits in support from family members. Similarly, there were trends for chance locus of control, lack of an internal locus of control, a tendency to not turn to others for coping support, and to not use active/ objective means of coping with daily problems. While the finding of coping difficulties among physically maltreated subjects was not

specifically predicted, it is consistent with a picture of this group as individuals with a wide range of difficulties in functioning.

Few researchers have made detailed analyses of the long-term psychological sequelae of physical maltreatment: locus of control and self-efficacy, in particular, have not been explored. Self-efficacy is a measure of the individual's expectations of personal success and mastery and is related to self-esteem, feelings of competency, and to an internal locus of control (Sherer et al., 1982). It is not surprising that in this study physically maltreated subjects demonstrated a constellation of low self-esteem, poor self-concept, low self-efficacy, a chance locus of control, and lack of an internal locus of control. Although the term self-efficacy was not actually used, Farber and Egeland (1987) demonstrated greater anger and frustration plus marked deficits in persistence, enthusiasm, and agency in physically abused children undertaking problem-solving tasks. These types of behavioural difficulties at an early age may correspond to the poorer self-efficacy, chance locus of control, and absence of an internal locus of control that are apparent in these individuals as young adults.

Believing that important aspects of one's life are largely controlled by chance factors and not by oneself suggests that the victim of physical maltreatment may feel unable to predict or control major facets of his or her

life. This kind of belief system likely arose through repeated exposure to the often unpredictable aggressiveness of the parent. This is supported by the findings of Barahal et al. (1981) who determined that physically abused children tended to demonstrate an external locus of control.

While subjects with greater degrees of physical maltreatment were found to have lower general self-efficacy there was no difference in the degree of social self-efficacy. Despite other evidence suggesting that child physical abuse interferes with the formation and maintenance of social relationships in childhood (Oates et al., 1985) and adulthood (Cole, 1986; Courtois, 1988) none of the maltreated subjects in this sample perceived themselves to be less supported by their friends or to be less effective in social relationships than others. Even though they did not report dissatisfaction with their peer relationships, these individuals indicated difficulty in trusting others and in turning to others for coping assistance. Where the physically maltreated subjects differed the most from others was in their perceptions of the amount of support provided by their families. This is understandable, as by definition, these subjects were maltreated by the same families that they now see as unsupportive.

The impact of sexual abuse during childhood and adolescence was less apparent than that of physical maltreatment. Neither psychological distress, self-esteem,

nor the six self-concept scales were connected to the extent of sexual abuse in the univariate analyses. Similarly, sexual abuse in childhood or adolescence had no relationship to either self-efficacy or locus of control. It should be noted, however, that when all three of the maltreatment variables were examined in the multivariate analyses, there was a tendency for child and adolescent sexual abuse to be related to negative outcome yet with less significance than physical maltreatment. This suggests that the concurrence of all three forms of maltreatment is particularly devastating for the individual but when considered separately, the effects of physical maltreatment outweigh those of sexual abuse within this sample.

Following the overall relationship between all three forms of maltreatment and poor adjustment, a second independent profile appeared in the multivariate analysis. This involved a group of women with higher levels of both child sexual abuse and physical maltreatment who showed a lack of an internal locus of control, low family support, and high worry and anger when coping with current problems. This suggests that maltreatment that occurs early in life (as opposed to during adolescence) is particularly likely to contribute to certain difficulties in functioning. Experiencing more than one form of maltreatment during childhood appears to be especially damaging.

A theme appearing throughout this study is a primary

global association between all three forms of child maltreatment and greater distress and difficulties in functioning. According to Rutter (1980), stress in children is cumulative, therefore, the adverse effects of stress increase with the number of stressors experienced. The compounding of effects that appears when the multiple stressors of physical and sexual abuse occur in childhood has also been noted in other studies. For example, among victims of sexual abuse, the addition of physical abuse contributed to greater suicidal intent (Briere & Runtz, 1986), depression, and sleep disturbance (Briere & Runtz, 1989), and extent of symptoms on the SCL-90 (Conte et al., 1989, Aug.).

The lack of a strong relationship between sexual abuse and psychological symptoms was unexpected as many studies have shown that such an association exists. The connection between child sexual abuse and psychiatric symptomatology has been found in studies of child victims (Bagley & McDonald, 1984; Browne & Finkelhor, 1986a; Lanktree, Zaidi, Briere, & Gutierrez, 1989; Mrazek & Mrazek, 1981), community samples of adults (Bagley & Ramsay, 1985/86; Peters, 1988; Stein, Golding, Siegel, Burnam, & Sorenson, 1988), adult psychiatric outpatients and inpatients (Briere & Runtz, 1986, 1987; Briere & Zaidi, 1988; Carmen, Rieker, & Mills, 1984; Herman, 1986), and college samples (Briere & Runtz, 1988b).

Studies of university populations of victims have tended to be somewhat inconsistent in their findings. For example, although some researchers have found evidence of the expected relationship between psychological symptoms and child sexual abuse among students (Briere & Runtz, 1988b; Runtz, 1987; Urquiza & Crowley, 1986) others have not (Cole, 1986; Urquiza, 1988). When sexual abuse has been compared to physical abuse in these studies there is often a disparity between the apparent effects of each type of maltreatment. As found in the present study, the magnitude of physical abuse sequelae (in terms of psychiatric symptomatology) tend to outweigh those of sexual abuse when the subjects are college students (e.g., Cole, 1986; Runtz, 1987). While this could be a problem associated with the type of sample use, it could also reflect an apparent specificity of effects rather than the absence of abuse effects. For example, in a study by Briere and Runtz (1990b), a comparison of three types of child maltreatment revealed specific associations between: a) physical maltreatment and aggressive behaviour; b) sexual abuse and sexually maladaptive behaviour; and c) emotional abuse and low self-esteem. This suggests, therefore, that global assessments of emotional distress may not accurately reflect the actual impact of sexual abuse. This is supported by later findings that suggest a particular pattern of trauma-related coping strategies that are linked to child sexual

abuse even in the absence of poor adjustment as measured by the BSI or the CSEI.

While an association between child sexual abuse and low self-esteem has been observed clinically (Briere, 1989; Courtois, 1988; Herman, 1981), such a connection has not appeared consistently within the empirical literature. For example, although a relationship between sexual abuse in childhood and later low self-esteem has been demonstrated statistically (Gold, 1986; Sorrenti-Little et al., 1984; Urquiza & Crowley, 1986), a number of studies have failed to find this link (Briere & Runtz, 1988b; Cole, 1986; Fromuth, 1986; Runtz, 1987; Urquiza, 1988).

As with self-esteem, none of the other self-concept dimensions in the current study (i.e., trust, anger, independence, asking for help, mental health, guilt, and self-efficacy) had any association with either form of sexual abuse when considered independently. Similarly, there was no specific relationship between either type of sexual abuse and locus of control. This was unexpected as other studies have found locus of control to be related to child sexual abuse (Gold, 1986).

As with those individuals who had experienced physical maltreatment, child sexual abuse victims tended to report dissatisfaction in their relationships with family members. This lack of social support did not extend to either group's peer relations. This is not consistent with studies that

have identified impaired social relations among child sexual abuse victims (Friedrich et al., 1986) and adult survivors of sexual abuse (Runtz, 1988a; Harter et al., 1988) as these studies have usually looked at relationships outside of the family. In this sample, the majority of subjects were young and single, hence, the family relationships addressed were most likely within the family of origin.

Disturbed family relationships appeared within the child sexual abuse group even though most of the sexual victimization in this sample occurred outside of the family. In contrast, in the case of physical maltreatment, these behaviours occurred exclusively within the family. It appears that a current lack of family support is most likely to by evident when maltreatment occurs with greater frequency within the family. This was also apparent with adolescent sexual abuse which was unrelated to family support and the least likely of the three forms of maltreatment to occur within the family.

As with sexual abuse during childhood, there were few significant relationships between adolescent sexual abuse and the adjustment and personality variables when the whole sample was considered. That is, there were no significant associations between adolescent sexual abuse and psychological symptomatology, self-concept, self-efficacy, locus of control, or social support. The only findings involved a link between sexual abuse during adolescence and

the use of active/objective means of coping with current problems. This is directly opposite of the findings for physical maltreatment wherein that group of subjects was considerably less likely to use active/objective means of coping. Given that sexual abuse during adolescence was the most recently occurring type of maltreatment of the three that were measured, it is not surprising that these individuals would be the only ones to be using an active approach to coping with daily problems. Those who were victimized much earlier (i.e., physically maltreated subjects) may have learned over time that active coping was not successful for them as it is difficult for a child to intentionally control or modify a parent's aggressive behaviour. The subjects abused during adolescence, on the other hand, may have developed an active style of coping with current problems as a result of having to cope with a situation such as date rape, which was a common form of maltreatment within this group. This is supported by the literature on sexual assault (Burgess & Holmstrom, 1979; Meyer & Taylor, 1986) which suggest that active coping after a sexual assault tends to be most effective in terms of facilitating adjustment. Use of this type of coping may then have generalized to other areas of problem-solving.

Type of Maltreatment and Trauma-Specific Coping

When comparisons were made among just those subjects who had at least one victimization experience, specific

patterns of coping responses appeared to be associated with each type of maltreatment. These coping responses differed from the measures of current coping in that they were specifically related to how subjects coped with the experience of maltreatment (i.e., trauma-specific coping). Relationships were found between the extent of each of the three types of maltreatment and current post-traumatic stress symptoms, trauma-specific coping styles, and the extent of the subjects' resolution of their childhood experiences.

For example, among those who were maltreated, those with either greater adolescent sexual abuse or physical maltreatment showed evidence of trauma-related PTSD symptoms, while this was not the case for child sexual abuse. Additionally, those with adolescent sexual abuse were the only maltreated subjects to show a tendency to use self-destructive means of coping. That is, in comparison to those who were maltreated at an earlier age, the subjects who were abused in adolescence were more likely to be involved in risk-taking behaviours, substance abuse, and consideration of suicide. Although there was no option of making a comparison to those without a history of maltreatment, it is likely that the average non-abused student would also be less likely to be self-destructive than the adolescent group.

Even though the extent of child sexual abuse had not

been demonstrated to be associated with any of the adjustment or symptom variables, it was linked to a specific pattern of trauma-specific coping. Child sexual abuse victims were the only maltreated subjects to identify with all three of the "recovery from abuse" dimensions of coping: they endorsed an upset/emotional response style, a survivor attitude, and a tendency to distance themselves from others with regard to their childhood experiences. Additionally, only those with a history of child sexual abuse showed a tendency to use detachment as a predominant means of coping with the childhood maltreatment experience. That is, they endorsed such items as: "No one knows the real me"; "I've never told anyone about my childhood experiences"; and "I really can't remember a lot about my childhood". In this sample, it appears that distancing themselves by keeping their innermost feelings about their childhood to themselves and by attempting to repress memories of early negative events may be characteristic of child sexual abuse victims. This type of detachment is not simply avoidance but may be similar to the "numbing" and dissociation that often appears among survivors of sexual abuse (Briere, 1989; Briere & Runtz, 1990a; Courtois, 1988).

Also unique to child sexual abuse victims was the endorsement of the "survivor" dimension of recovery. In particular, an independent profile appeared for certain female child sexual abuse victims who lacked the intrusive

thoughts associated with PTSD, were unlikely to be self-destructive, and were particularly apt to see themselves as survivors. These women indicated that they felt stronger because of the difficulties that they experienced during childhood and that they had confidence in their ability to function independently. Therefore, although all three types of maltreatment were generally associated with poor adjustment, there was a group of individuals who demonstrated positive recovery and adjustment. The link between this "survivor" profile and child sexual abuse is consistent with findings of Silver et al. (1983) who noted that of the 80% of incest victims who attempted to understand and come to terms with their victimization, those who reached some resolution were better adjusted than those who had not accepted the experience.

Not all subjects who see themselves as survivors are currently functioning well, as the global relationships between the variables indicated that some victims endorse this dimension while reporting PTSD symptoms and a variety of dysfunctional methods of coping. Again, this fits with the findings of Silver et al. (1983) who determined that continued ruminations regarding one's experience of incest correlated with greater feelings of distress and intrusive thoughts. Hence, coming to a resolution of an early traumatic experience is likely only part of the larger process of recovery and not necessarily an endpoint in

itself.

Those individuals with a history of physical maltreatment tended to share a coping style with victims of child sexual abuse: both tended to be highly reactive and emotional regarding their childhood experiences. These subjects tended to feel stigmatized, self-blaming, and continue to feel upset about their childhood. For physically maltreated subjects this is congruent with their greater PTSD symptoms and endorsement of a number of other coping styles. The physically maltreated subjects also tended to be highly expressive and to use cognitive and nervous/anxious means of coping with their childhood experiences. This may represent attempts by these individuals to master the ongoing emotions related to their earlier experiences (i.e., trying to understand it and express their feelings about it). As conceptualized by Burt and Katz (1987), frequent use of a variety of coping behaviours is indicative of distress as activation of coping strategies is a necessary part of reaching an "emotional equilibrium" following trauma.

For the victims of child sexual abuse, the endorsement of the three "recovery from abuse" scales suggests that these individuals continue to struggle with their feelings and attitudes regarding their childhood maltreatment. This was evident despite the lack of specific associations with global symptom level, self-concept, or abuse-related PTSD.

Such findings suggest a need for the study of abuse-specific effects rather than global psychological effects especially in the area of sexual abuse.

Sex Differences in Personality, Self-concept, Social Relatedness, and Coping

While no particular sex differences in symptoms or self-concept had been predicted, certain differences were apparent within the entire sample. Males and females were similar in their levels of psychological symptoms and self-esteem, yet when it came to self-concept, females were more likely than males to report ease in requesting help from others. There were also apparent trends for women to have greater independence, mental health, and an ability to trust others. Women also differed from men in terms of their social abilities and the manner in which they coped with daily worries and problems. In particular, female subjects felt more confident in their ability to succeed at social relationships and perceived themselves to receive greater social support from both friends and family than did male subjects. Similarly, women appear to rely more on others for coping assistance. The ease with which these women were apparently able to trust others, their willingness to seek help, plus their social self-efficacy and satisfaction with their social networks is consistent with the literature that suggest that social relatedness is central to women's identity (Gilligan, 1982; Miller, 1976).

The only sex difference that was related to being male was a greater tendency for men to endorse a locus of control characterized by the belief in the importance of powerful others as causal influences in their lives. This was the only apparent relationship for this type of locus of control and it appears to be unrelated to history of maltreatment. A tendency for men to endorse the powerful others dimension was also found by the author of the Locus of Control scale (Levenson, 1974).

When sex differences were explored among only those subjects who had been maltreated, it was expected that a man would be less likely than a women to admit his distress about being maltreated to himself or others due to the shame resulting from an assault to his sense of masculinity (Bolton et al., 1989). Therefore, it was thought that this would be reflected in a tendency for sexually abused males to be more likely than females to use avoidance and less likely to use expressive means of coping with their childhood experiences. While males were less expressive than females, they were not more avoidant. In fact, females were more likely than males to employ a variety of different coping styles and attitudes. Not only were they more expressive than men, women were also more likely to use avoidant behaviour and to see themselves as survivors of a difficult childhood. According to Burt and Katz (1987), greater use of trauma-related coping strategies is

associated with ongoing distress and attempts at resolution of that distress. This is supported by the current study's finding of greater PTSD symptoms among maltreated women. Therefore, maltreated female subjects appear to be experiencing greater trauma-related stress than their male counterparts.

It is possible that this apparent sex difference is related to the greater likelihood of victimization among female subjects (i.e., females were twice as likely as males to experience either form of sexual abuse). Adolescent sexual abuse, in particular, was associated both with being female and with the presence of PTSD symptoms. Although women did not have higher scores than men on either the CSA or ASA scales, female victims of adolescent sexual abuse were more likely than males to have been abused by older, known, male offenders and to have experienced intercourse. Each of these factors have previously been found to be associated with greater symptomatology (Finkelhor, 1979; Russell, 1986). Similarly, female victims of child sexual abuse tended to see the experience as more negative than males. These findings indicate that females are both more likely than males to experience sexual abuse as well as more likely to report greater symptomatology and distress as a result.

It is possible that the victimized women in this sample actually were experiencing greater distress (rather than

just reporting it more readily) than their male counterparts. This is evident in a later analysis of only victimized subjects: poorer adjustment was specifically associated with being female. This is not simply a sex difference as such a relationship only occurred among maltreated subjects. Also indicative of greater distress was the finding that although maltreated men and women were equally likely to have seen a therapist, women were slightly more likely than men (22% versus 14%) to have talked to their therapist about their childhood experiences. While it has been found that women are more willing than men to report anxiety and fear (Spiegler & Liebert, 1970; Wilson, 1967), this cannot fully account for the apparent sex differences as women did not systematically endorse only negative symptoms and in particular, did not endorse a highly emotional response style.

Coping Styles and Social Support as Mediators of Adjustment

It has been asserted that child abuse does not always result in serious disturbance (Browne & Finkelhor, 1986b) in adulthood. While child abuse itself is usually considered to be harmful, recent work has suggested that a number of developmental, familial, and environmental factors may serve as mediators of the stress related to neglect and maltreatment (Farber & Egeland, 1987; Friedrich, 1990; Garmezy, 1985; Mrazek & Mrazek, 1987; Rutter, 1987). Included in this growing list of mediators or "protective

factors" are a variety of cognitive, behavioural, and social factors that, in this study, are referred to as coping strategies and social support.

In the examination of the potential role of mediators, specific patterns of support and coping strategies appeared to influence the adjustment of maltreated subjects independent of the maltreatment experienced. It was expected that the use of avoidance, cognitive strategies, nervous/anxious behaviour, and self-destructive behaviour would be associated with greater symptomatology, poorer self-concept and self-efficacy, and a locus of control based on chance and powerful others. Similarly, it was thought that the use of expressive strategies and the presence of social supports would be associated with the positive poles of each of the above dimensions of personality and adjustment.

What was discovered by the multivariate analyses was an overall relationship between social support and coping styles that existed above and beyond the type or extent of maltreatment experienced. This general association suggested that a pattern of coping characterized by a lack of social support plus the use of nervous/anxious coping, avoidance, and self-destructive behaviour was linked to the poor adjustment pole of each variable measured (i.e., from symptomatology to locus of control). A second profile represented women with maladaptive coping (e.g.,

nervous/anxious, avoidant, and self-destructive) as well as high family support. These women were also highly symptomatic, as well as angry, needy, and guilty. It may be that this group of maltreated women are highly enmeshed with their families as the presence of family support does not appear to offset their poor adjustment. Both of the above profiles of coping and adjustment existed regardless of the extent and type of maltreatment experienced by the subject suggesting that in some cases, how one copes with child maltreatment as an adult may be more relevant to adjustment than the actual extent of maltreatment experienced. This, of course, is the case when looking within a set of subjects who have experienced at least one episode of maltreatment.

A third independent coping profile appeared for women who experienced a high degree of physical maltreatment as children, were highly expressive and had good support from friends, yet perceived themselves to have low family support. While these women tended to show significant symptomatology and low self-esteem, they also had an ability to be independent, to trust others, and to seek assistance from others. This group of victimized women may represent a subgroup of distressed, physically abused subjects in the process of actively seeking coping assistance from their social support network.

The original version of this coping scale was designed by Burt and Katz (1987) to measure the relative efficacy of

various modes of coping among women who had been sexually assaulted as adults. Within their sample, all five coping strategies tended to be evoked when women were under stress as greater endorsement of each scale was associated with higher symptomatology and lower self-esteem. This differs somewhat from the present study's findings which indicate that only certain ways of coping are related to greater distress. It appears that coping may play a different role for survivors of childhood sexual abuse than it does for sexual assault victims.

One of the major differences in the effectiveness of the coping styles employed by the subjects in the original study versus the current sample is in the apparent effects of expressive coping: expressiveness was more clearly indicative of recovery among the subjects who were victimized during childhood (as in the present sample). Evidence of the positive influence of expressiveness was in its association with independence, mental health, and trust. Similarly, there were trends toward a relationship between expressiveness and higher self-esteem, low anger and guilt, and an ability to ask others for assistance when needed.

In opposition to the current findings, however, Burt and Katz (1987) found expressiveness to be associated with greater distress. That is, they found weak but significant positive correlations between expressive coping and both increased fears and total number of symptoms endorsed on the

BSI. A similar difference between the two studies related to the connection between expressiveness and self-blame. While within Burt and Katz's (1988) sample of sexual assault victims there was no relationship between expressiveness and guilt/self-blame, in the current study there was a negative correlation between these two variables. This is further indication that expressiveness tends to be an adaptive response to early trauma.

Subjects who used expressive means of coping also demonstrated an internal locus of control. In other words, these expressive subjects felt that they had the power to determine the course of their own life. This is particularly relevant to those who were physically maltreated as children as this type of treatment was uniquely associated with the lack of an internal locus of control and only a slight tendency to use expressive coping. Therefore, increased expression of unresolved feelings related to physical maltreatment in childhood could assist these subjects to develop an increased sense of internal control.

While high expressiveness appears to be maladaptive for sexual assault victims in the short-run, the authors of the scale found that the use of expressive means of coping increases over time subsequent to the initial trauma and is, therefore, suggestive of long-term recovery (Burt & Katz, 1988). It may be that long-term positive adjustment to

child maltreatment is characterized by expressive coping and that the use of this style of coping increases with time elapsed since the victimization.

Three other style of coping (i.e., avoidance coping, nervous/anxious behaviour, and self-destructive behaviour) appeared to be particularly maladaptive as they were all linked to poorer adjustment regardless of the type or extent of maltreatment experienced. Those who used avoidance as a way of coping with child maltreatment (e.g., sleeping a lot, trying not to think about it, keeping busy) demonstrated greater guilt and self-blame and endorsed a locus of control characterized by a belief in the control of powerful others and chance. They also tended to show higher levels of symptomatology, poorer mental health, less trust in others, and lower self-esteem, less independence, and were less likely to ask others for help.

Maltreated subjects who engaged in self-destructive behaviour (e.g., eating, smoking, or drinking more than usual, taking greater risks than usual, considering suicide) showed greater anger and guilt and were more isolated from other people. They too showed greater symptomatology, lower self-esteem, lower independence, and poorer mental health. Although Burt and Katz (1988) found that four of the five coping methods (all but expressiveness) were related to guilt and self-blame, in the current study only avoidance and self-destructive coping had this association while

expressiveness was negatively associated with guilt.

Those who coped by nervous or anxious means (e.g., snapping at others, taking prescription drugs to relax, crying a lot when alone) tended to be low in independence and mental health, lacked an internal locus of control, and showed slightly higher levels of anger and emotional distress. As in the study of rape victims (Burt & Katz, 1987), all three of these forms of coping (avoidance, nervous/anxious, and self-destructive) were more strongly associated with all types of negative symptomatology than were either expressive or cognitive coping strategies.

The consequences of using cognitive coping strategies were less clear than for the other styles of coping. For example, the use of cognitive strategies (e.g., rethinking the situation, getting more information, and trying to understand the maltreatment) was only marginally associated with general self-efficacy and low levels of symptomatology and was unrelated to self-esteem, self-concept, locus of control, and social self-efficacy. While the direction of these trends suggest that cognitive coping strategies tend to be adaptive, they may be less effective than expressive coping strategies in influencing mental health. This is contrary to the findings of Burt and Katz (1987) who determined that the use of cognitive strategies was linked to greater anxiety, depression, PTSD, increased fears, and BSI symptom total among victims of rape. It may be that

cognitive strategies have their greatest usefulness in the long-term rather than following a more recent assault.[1] Another possibility is that the current sample includes a number of individuals who were physically maltreated by a parent. For these subjects, trying to understand and place into perspective a parent's use of harsh discipline may be a particularly successful long-term coping strategy in a culture which is relatively accepting of such behaviour.

As theorized by Heller et al. (1986), this study demonstrates that social support and coping have both independent and overlapping influences on mental health. As mentioned earlier, there was a global relationship between maladaptive coping styles, poor social support, and poor adjustment among victimized subjects. The reverse could also be supported by this study: high levels of support in conjunction with adaptive coping styles is associated with positive adjustment. In particular, those maltreated subjects who perceived themselves as being supported by both friends and family had better self-esteem, less anger, better mental health, and were able to ask for assistance from others. They were also somewhat more likely to have higher general self-efficacy and an internal locus of control.

Despite the similarities in the correlates of each form

---

[1] Over 75% of Burt & Katz's (1987) sample had been sexually assaulted within the past five years.

of social support, there were some variables that were specifically connected to having satisfactory peer relationships. Having support from friends seemed to be particularly important for these young adults. Except for the importance of both types of support to self-esteem, the extent and magnitude of the relationships between peer support and adjustment consistently outweighed those of family support. That is, peer support was uniquely associated with higher independence, trust of others, less guilt and self-blame, and greater social self-efficacy. Support from friends was also marginally related to low psychological distress and the lack of a belief in the role of chance and powerful others as influential factors in one's life. While these relationships are similar to those occurring with various coping styles, social support appeared to play a unique role in influencing feelings of self-efficacy among maltreated subjects. That is, the more successful one is in developing satisfactory social relationships, the greater the sense of personal and interpersonal effectiveness.

The above findings are in agreement with those of a number of writers who have suggested that social support acts as a buffer against the negative effects of general stress (Kessler et al., 1985; Pearlin et al., 1981) and of child abuse related stress (Conte & Schuerman, 1987; Wyatt & Mickey, 1987; Zimrin, 1986). While the level of family

support during childhood appears to be a protective factor against later negative effects of sexual abuse (Wyatt & Mickey, 1988), it may not play as central a role in early adulthood. In this study, current support from friends was apparently even more important than current support from family. The role of peer relationships is particularly important for those maltreated subjects who reported less than satisfactory family relationships (i.e., those with physical maltreatment or child sexual abuse).

Most of the studies that have found social support to be a mediator of the distress related to child maltreatment have looked primarily at support factors existing within the family during childhood (e.g., Farber & Egeland, 1987; Friedrich, 1988). Some studies have found that family support factors during childhood are even more important predictors of psychological and behaviour problems than are abuse characteristics (Friedrich, 1988; Peters, 1988). The current study provides evidence that the benefits of social support are not limited to that which occurs at the time of the maltreatment. Instead, the apparent protective effects of social support may occur long after the childhood trauma.

The Recovery from Abuse Scale and Adjustment

The Recovery from Abuse scale was developed for this study with the express purpose of measuring a set of attitudes and outlooks that would indicate the successful resolution of distress related to child maltreatment

experiences. As the questions were designed specifically with child maltreatment in mind (rather than sexual assault as with Burt and Katz's (1987) coping scales), it was expected that there would be some similarities and differences (with regard to the original study) in the correlates of this scale with other measures.

Three independent patterns of responses appeared with the multivariate analyses. The first represented persons who had high levels of physical maltreatment, endorsement of the detached and highly upset recovery dimensions, and poor adjustment on all variables related to self-concept and functioning. This indicates that there is a general relationship between these two styles of coping and poor adjustment that is evident primarily among those who had been physically maltreated. It also mirrors the earlier finding of a strong connection between physical maltreatment and these two ways of coping.

The second profile described a group of women who saw themselves as survivors and had a positive self-concept (i.e., independence, mental health, trust, and help-seeking abilities) yet showed evidence of psychological distress. This profile may represent the same women who appeared in an earlier analysis with high physical abuse, positive self-concept, expressive coping, and high symptomatology. In the present case, the relationship to type of maltreatment was less evident as physical maltreatment narrowly missed

multivariate significance. In both analyses these women appear to be actively in the process of coping with their childhood experience.

The third profile was descriptive of a group with child sexual abuse who reported little distress about the experience and described themselves as not feeling angry and needy or guilty and self-blaming. It appears that these subjects did not feel traumatized by their early sexual experiences with older individuals. It is unlikely that they once felt traumatized and upset but no longer feel this way, as there was no indication that they identified themselves as survivors. In fact, the relationship to the survivor dimension was negative, although nonsignificant. Similarly, they did not appear to be attempting to deny or avoid disturbing feelings about their childhood as they did not endorse the detached dimension. It is possible that these individuals may have experienced a less severe form of sexual abuse than some of the other subjects in the study.

It was apparent from both the multivariate and univariate results that the survivor scale stood apart from the other two scales as an independent measure of recovery. This dimension was characterized by an ability to see oneself as a someone who has successfully coped with a difficult experience during childhood. As conceptualized by Silver et al. (1983), these subjects had "found meaning in misfortune". It is reasonable that such a perspective would

be linked to a positive self-concept as it was among Silver et al.'s (1983) incest victims. Among the self-concept items, higher levels of independence, mental health, trust, self-esteem, and asking for assistance were each found among the individuals who described themselves as survivors. Similarly, these individuals also showed tendencies toward less anger/neediness and guilt. In addition to these findings, the univariate results indicated that endorsement of the survivor dimension was associated with lower levels of symptomatology.

The survivor subscale describes individuals who, in their efforts to cope with potentially difficult emotions, have engaged in a form of cognitive restructuring. That is, they have reframed their beliefs about their childhood experiences in an adaptive manner (e.g., "I feel that I have become a stronger person because of my life experiences.") and have put a healthy distance between themselves and the experience (e.g., "I feel that I have been able to put my childhood behind me and go on with my life."). This plus a belief in one's own abilities to survive (e.g., "I know that if I had to I could get by on my own.") are reflective of the adaptiveness of endorsing this set of attitudes and beliefs. As found by Silver et al. (1983), it may not be how these subjects found meaning, but the fact that they could make sense of their experience that contributed to better adjustment. These findings are also supported by

those who have found cognitive restructuring to be useful in the recovery of both adult (Jehu et al., 1985/1986) and child victims of sexual abuse (Mrazek & Mrazek, 1987).

In opposition to the above findings, it was apparent that being either detached (e.g., no one knows the "real" me; can't remember much of childhood; not feeling understood) or highly upset about the experience (e.g., feeling different from others; very upset about childhood; blaming self for childhood experiences) was consistently associated with higher levels of symptomatology and a negative self-concept. This was particularly apparent for individuals with especially high levels of physical maltreatment. As the upset and detached dimensions were moderately correlated (r=.49), it may be that they may represent a similar pattern to that found with post-traumatic stress (i.e., alternating of intrusive thoughts with attempts at avoiding such thoughts and the associated feelings). Silver et al. (1983) also found that those who did not confide in another person about their incest experience tended to suffer greater distress than those who did not distant themselves from others in this manner.

Differences between these two less adaptive dimensions were also apparent. While being detached and distant from others was linked with the negative pole of each of the adjustment dimensions, being highly upset about one's maltreatment was less consistently predictive of distress.

That is, that dimension was not associated symptomatology, self-esteem, or an ability to ask for assistance. It may be that feeling stigmatized by the experience and withdrawing into oneself may be especially indicative of unresolved abuse-related distress.

A comparison of the findings regarding the "How I deal with things" scale and the Recovery from Abuse scale indicate some important differences in coping. While the expressiveness scale was found to be correlated with generally positive dimensions of adjustment, the highly upset scale had the opposite relationship. Differences suggested by individual items of these scales indicate that the expression of emotions can be adaptive when done with others and in an appropriate manner. However, when the emotions regarding the child maltreatment experience continue to be very upsetting and result in self-blame and intrusive feelings then this is no longer an adaptive response (Silver et al., 1983).

There are also similarities between the avoidance subscale of the "How I deal with things" scale and the detached subscale of the Recovery from Abuse. Although the avoidance scale primarily describes behaviours and the detached scale describes attitudes and beliefs, endorsement of these scales indicate an avoidant approach to dealing with strong negative emotions. In turn, they both were associated with poorer psychological adjustment. The

maladaptive nature of using avoidance coping has been documented repeatedly in the literature on general stress (Billings & Moos, 1981; Lazarus, 1966; Moos, 1977) and coping with victimization (Burgess & Holmstrom, 1979; Burt & Katz, 1987; Meyer & Taylor, 1986; Mitchell & Hodson, 1983).

These findings suggest that having a "survivor" attitude tends to indicate recovery from child maltreatment to a large extent. On the other hand, those victims who have not resolved the distress associated with childhood may vacillate between being either highly upset and emotional or else detached and withdrawn. As stated by Lazarus and Folkman (1984), coping is an active process rather than simply an outcome and many of these individuals are still within the process of recovery and would look significantly different were they to be reexamined 10 years from now.

Summary of Major Findings

The overall results of this study have indicated a number of differences and similarities between physical maltreatment, child sexual abuse, and adolescent sexual abuse within this group of male and female university students. Child maltreatment was determined to be relatively common within this sample as 15% of women and 6% of men had been subjected to child sexual abuse, 16% of women and 9% of men were victims of adolescent sexual abuse, and 24% of all subjects had been physically injured by their parents prior to age 18.

Not only is the maltreatment of children quite commonplace; its negative sequelae are varied and extensive. Although the maltreatment in question had occurred a number of years prior to the study, a rather dramatic association appeared between having had such a troubled childhood and the disruption of current psychological and social functioning. While all three forms of maltreatment appeared to affect later functioning, this finding was particularly evident among those who had grown up being physically maltreated by their parents. Physical maltreatment had a strong association with psychological symptomatology, poor self-esteem and self-concept, symptoms of PTSD, and lack of support from family members. While child sexual abuse was not found to be associated with any of the symptomatology or self-concept variables, both the physically and sexually

maltreated subjects reported dissatisfaction with family relationships and appeared to be actively involved in attempts to cope with their early experiences. Adolescent sexual abuse was linked to more active styles of coping with daily problems as well as greater PTSD symptoms and a tendency toward self-destructive behaviour.

Following the initial findings that survivors of child maltreatment tended to experience greater psychological distress and poorer self-concept, coping styles and social support were examined for their potential roles as mediators of these negative sequelae. It was apparent that social support and certain ways of coping acted as buffers against the distress that was found to be associated with child maltreatment. In particular, expressive means of coping were consistently associated with variables most characteristic of positive adjustment. For example, the ability to express feelings appropriately with others was linked to positive self-concept and an internal locus of control. Therefore, recovery from the distress associated with maltreatment in childhood appears to be facilitated by the ability to express feelings appropriately.

Similarly, subscribing to a particular way of viewing one's childhood experience also had a positive influence on the subject's mental health. Those who described themselves as survivors rather than victims (i.e., they were able to get on with their lives and felt stronger because of their

early difficulties) also appeared to be healthier in terms of emotional distress and self-concept. Therefore, recovery from child maltreatment appears to be indicated by an ability to come to terms with the experience emotionally.

Social support was found to have a similar influence on psychological adjustment as did coping styles. That is, those maltreated subjects who received support from their friends and family also demonstrated relatively positive mental health in terms of level of emotional distress and self-concept. This was particularly apparent with regard to support from friends. As suggested by Cohen and McKay (1984), social support may function to intervene between stressful life events and the person's response to the event thus preventing a negative outcome.

In contrast, the use of avoidance, nervous/anxious coping, and self-destructive behaviours to deal with feelings related to earlier maltreatment is essentially maladaptive. Those maltreated subjects who did so tended to demonstrate greater symptomatology, lack of an internal locus of control, and deficits in self-concept. Similarly, those maltreated subjects who remained unresolved about their childhood experience (i.e., were either detached or overemotional with regard to their childhood) were also likely to suffer from emotional distress and poor self-concept.

Overall, the findings of this study indicate that

recovery from child maltreatment may be influenced by the presence of social support from friends and family, the use of expressive means of coping, and the ability to see oneself as a survivor rather than a victim. Therefore, coping styles and social support may be what differentiates relatively healthy maltreated subjects from those who are evidencing negative long-term effects of their childhood.

Clinical Implications

Clinically, this study has both replicated previous findings as well as added a number of new and important dimensions to the study and treatment of individuals with a history of child maltreatment. As demonstrated by others, those who have been maltreated during childhood may be in greater need of mental health services than the general population. The greater variety and magnitude of psychological symptomatology plus poorer self-concept, self-efficacy and social resources evident among the victimized subjects indicates the need for special attention to these factors during the course of psychotherapeutic intervention. In particular, as those who tend to use avoidance and other less adaptive forms of coping also experience the greatest distress, the client may need to be assisted in dealing more directly with the source of their distress.

In particular, it is imperative that clinicians attend to the needs of those with a history of child physical maltreatment. This study demonstrates that psychological

distress is often present following physical maltreatment in childhood even when the behaviour is not limited to that which leads to injury and independent of the style of coping used. While the issue of sexual abuse has become a relatively common focus of many therapeutic approaches the same cannot be said for physical maltreatment. Similarly, there has been a lot of media attention to the plight of sexual abuse survivors. An equal effort should be made to inform the public of the potential emotional damage that can arise from the physical maltreatment of children and to encourage those who may be suffering its ill effects to seek treatment.

While people with a history of child abuse have been found to predominate among users of certain mental health services (e.g., Briere & Zaidi, 1989) not all such individuals seek therapy. As indicated by this study, only a small proportion of all abused subjects (i.e., 19%) indicated that they had previously seen a therapist despite their being at risk for emotional distress. While talking to a therapist was associated with being overtly upset by one's childhood experience, this does not mean that others with lesser degrees of disturbance would not also benefit from therapy. Therapeutic services catering to those with a child maltreatment history should be made accessible to those who may require them regardless of the degree of apparent trauma, as other factors such as self-esteem

deficits may also be present.

An important discovery of the present study is that the pattern of coping strategies employed by those who experienced early maltreatment may influence psychological adjustment in adulthood. The fact that social support and certain ways of coping appear to act as mediators of the potential negative effects of child maltreatment suggests a mechanism by which some victims of maltreatment achieve relatively positive mental health despite an experience that has been shown to be associated with later distress. This sheds some light on Browne and Finkelhor's (1986b) conclusion that as few as one fifth of sexual abuse victims suffer from serious psychological disturbance.

Clinicians must be alert to those clients with an maltreatment history who have difficulty recalling their childhood experiences and rely primarily on avoidance and anxiety-based coping strategies, or engage in self-destructive behaviours. As demonstrated by this study, these will be the individuals most in need of therapeutic intervention that focuses on the trauma of abusive childhood experiences.

The finding that using expressive coping, having a "survivor" attitude, and receiving assistance from a social support system were associated with positive adjustment indicates the benefit of incorporating such factors into clinical treatment of maltreated individuals. As cognitive

restructuring of beliefs about the abusive experience and appropriate expression of maltreatment-related emotions were both related to better psychological adjustment, techniques based on such approaches may prove to be beneficial during the therapy of adult survivors. Similarly, therapy modalities which provide social support (i.e., group therapy) may be particularly useful for people who have experienced victimization during childhood (Coates & Winston, 1983; Courtois, 1988; Herman & Schatzow, 1984; Tsai & Wagner, 1978). As shown by Jehu et al., (1985/86) cognitive restructuring and group therapy can be successfully combined in the treatment of adult survivors of child sexual abuse.

Regardless of the treatment modality chosen, the benefit of an approach that encourages appropriate expression of abuse-related feelings and emotions has been emphasized by the most current writers in the field (e.g., Briere, 1989; Courtois, 1988; Friedrich, 1990). Similarly, the importance of cognition and beliefs regarding early experiences are also of relevance to the recovery and adjustment of abuse survivors (Briere, 1989; Jehu, 1990). However therapy may be conducted it appears that when child maltreatment is present in the client's past, therapy which directly addresses this important life-event may provide the optimal benefit for the client in terms of the opportunity for emotional expression and adjustment of negative

cognitions.

Limitations and Implications for Further Study

One of the major concerns with the current study is the use of a sample of university students as subjects. This is a concern primarily to the appropriateness of generalizing from these results to other populations of physically and sexually maltreated individuals. This is often a difficulty with studies that utilize college students when examining clinical phenomena with relatively low base rates of occurrence. With respect to child maltreatment, this is particularly the case in light of findings that suggest that some forms of child maltreatment within college samples may be of a less severe variety than commonly found in other groups (Finkelhor, 1979a).

While the characteristics of child and adolescent sexual abuse in this sample are very similar to those found in a national survey of child sexual abuse (Finkelhor et al., 1990), similar comparisons could not easily be made for child physical maltreatment, as there is no clear point at which an appropriate cut-off point appears to differentiate between physical punishment and child abuse. Of the comparisons that could be made, there are some indications of differences between this sample and others. For example, in this sample a greater percentage of subjects (24% versus 11%) reported being injured by their parents in comparison to findings by Straus and Gelles (1988).

This suggests that while the results of the current study may be generalized to other student populations, caution should be applied when generalizing beyond college samples. Further work must be done in order to determine how representative these types of samples actually are to the overall population of those maltreated in childhood. As this is one of the first studies to examine the relative efficacy of various types of adult coping strategies among victims of child maltreatment, the results obtained could be seen as a starting point for further exploration in this area. Longitudinal studies and the examination of these variables within clinical populations are necessary in order to gain a more clear picture of the role of mediating variables in the recovery process.

A major difficulty with any research in this field is the inevitable problem of defining child abuse and maltreatment. As stated by Gelles (1982), "there is no objective phenomenon that can be defined as 'child abuse'" (p. 1). As there is no one set of criteria which will infallibly allow researchers to know what constitutes either child sexual or physical maltreatment, the best that can be done is to take direction from previous published works and clearly outline the definitions used in order to allow the reader to understand the limitations imposed by the definitions employed.

In this case, the problem of defining child abuse was

most evident in the case of physical maltreatment. This is because it is difficult to determine at what point parents' treatment of their children becomes abusive. The use of continuous variables which measured both the frequency and severity of potentially abusive behaviours allowed for greater accuracy in the measurement of each type of child maltreatment. However, this introduced another problem related to the comparability of the sexual abuse and physical maltreatment variables. While the physical maltreatment scale allowed the subject to select the frequency with which each of eight behaviours occurred (ranging from never to more than 20 times), dichotomous scaling (presence versus absence) was used for each of the items on the sexual abuse scales. This resulted in a total score for each type of sexual abuse that ranged from 0 to 10 in comparison with physical maltreatment which was a much more detailed scale that could range from 0 to 32. The sexual abuse scales are, in essence, a poorer measure of abuse frequency as the total score represents the number of different sexually abusive behaviours experienced rather than the frequency with which all of the behaviours occurred. Despite this, high scores on each maltreatment scale were correlated with indicators of severity of abuse (e.g., high CSA scores were related to intercourse, incest, duration of abuse, and greater age difference between victim and offender; high scores on CPM were related to greater injury).

In the present study, although child maltreatment was separated into three specific types of maltreatment, it was tempting to treat child maltreatment as a single, global construct. However, it should be noted that although each of the three types of maltreatment appeared to be disruptive to the development of the individual involved, they were not identical experiences. Hence, it cannot be assumed that being beaten by a parent is equivalent to a nonconsensual sexual experience with a peer or to sexual molestation as a child. Differences apparent in the etiology and apparent effects of each form of maltreatment signify the need for continued study of child physical and sexual maltreatment as related yet independent events. This study also points to the need to separately examine sexual maltreatment occurring during adolescence as it appears to be dissimilar to earlier sexual abuse in a number of ways.

It is important to note that the current study is correlational in nature and that it relies heavily on adult subjects' recall of their childhood experiences. As a correlational study, it would be inappropriate to conclude that child maltreatment necessarily causes the negative adjustment or coping strategies that are apparently associated with it. Similarly, it cannot be stated that particular coping styles cause either poor or positive adjustment.

Still, the probability that child maltreatment may

influence later adjustment cannot be easily dismissed. A factor weighing in the favour of the hypothesis that child maltreatment does influence later functioning is the temporal sequence of events and adjustment variables measured in this study. That is, we know that the child maltreatment occurred prior to the measurement of current adjustment. This does not, however, rule out the possibility that other factors occurring during childhood (or later) might have an effect on current level of adjustment. For example, other family and environmental factors have been found to affect the later functioning of sexual abuse survivors. A number of coexisting family problems might contribute, along with the maltreatment measured in this study, to apparent difficulties in later functioning. For example, a negative family environment, concurrent physical abuse, multiple abuse perpetrators (Conte et al., 1989, Aug.), and the degree of maternal support present (Wyatt & Mickey, 1987) all influence the later adjustment of sexual abuse victims. Although three different forms of child maltreatment were examined, no other family or environmental factors occurring in childhood (or later) were assessed in this study. Some other factors that may have influenced current adjustment and that require further study include: loss of a parent through death or divorce, severe childhood illness or accident, mental illness or alcoholism in a parent, physical abuse between

parents, and emotional maltreatment or neglect.

One study determined that while family factors had an influence on later adjustment, abuse-related variables (e.g., occurrence of intercourse and degree of violence) were significant even after controlling for the family environment factors (Conte et al., 1989, Aug.). This indicates that in some populations child sexual abuse is a fairly powerful predictor of later adjustment as it can outweigh the influence of other coexisting family characteristics. Similar studies need to be carried out to determine the role of physical maltreatment and its components relative to the influence of other family and environmental factors.

Problems with assuming causation are especially apparent when examining the results related to coping and social support as stress mediators. For example, it is as likely that positive adjustment allows one to use expressive means of coping as is the reverse. Similarly, expressive coping and positive adjustment could both be considered as the result of some other factor such as a strong support system during childhood. Therefore, it cannot be concluded that the coping variables measured here necessarily influence adjustment but that they are simply related to each other in a correlational fashion.

To fully answer all the questions posed by this study would require additional examinations of these variables and

others within different populations and with other more sophisticated methodologies. No one methodological approach, however, would be sufficient to fully explore the complexities of this area of research. For example, although a psychotherapy outcome study would provide a select sample, it would offer the opportunity to alter, through practice and rehearsal, the subject's use of certain coping strategies such as cognitive and expressive coping. Ethical and practical limitations on such an approach, however, would prevent a detailed examination of all of the coping strategies examined in this study.

The use of random sampling techniques would provide greater generalizability of results than either a clinical or college population. Yet regardless of the sample, in studying child maltreatment, there will always be the problem of denial or underreporting of the specific childhood problems most central to the study. With this problem in mind, the use of a sample more similar to the average child victim of maltreatment would be desirable as this would allow a more accurate assessment of the relationship of coping and social support to adjustment. While a correlational, cross-sectional approach provides an exploratory examination of the many potential mediators of the effects of child trauma, essential causative hypothesis cannot be maintained. A necessary second step to this type of study would involve either a longitudinal approach to

sampling or the use of path analytic statistical analysis in order to better support hypotheses regarding the direction of causation.

References

Aber, J. & Allen, J. (1987). Effects of maltreatment on young children's socioemotional development: An attachment theory perspective. Developmental Psychology, 23, 406-414.

Aber, J., Allen, J., Carlson, V., & Cicchetti, D. (1989). Effects of maltreatment on development during early childhood. In D. Cicchetti & V. Carlson (Eds.), Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect (pp. 579-619). Cambridge: Cambridge University Press.

Abramson, L., Seligman, M., & Teasdale, J. (1978). Learned helplessness in humans: Critique and reformulation. Journal of Abnormal Psychology, 87, 49-74.

Adair, F. L. (1984). Coopersmith Self-esteem Inventories. In D. J. Keyser & R. C. Sweetland (Eds.), Test critiques, Vol. I. Kansas City, MO: Test Corporation of America.

Ahmed, S., Valliant, P., & Swindle, D. (1985). Psychometric properties of Coopersmith Self-Esteem Inventory. Perceptual and Motor Skills, 61, 1235-1241.

Albee, G. W. (1980). A competency model to replace the defect model. In M. S. Gibbs, J. Lachenmeyer, & J. Sigal (Eds.), Community psychology: Theoretical and empirical approaches. NY: Gardner Press.

Allen, D. M. & Tarnowski, K. J. (1989). Depressive

characteristics of physically abused children. Journal of Abnormal Child Psychology, 17(1), 1-11.

Alter-Reid, K., Gibbs, M. S., Lachenmeyer, J. R., Sigal, J., & Massoth, N. A. (1986). Sexual abuse of children: A review of the empirical findings. Clinical Psychology Review, 6, 249-266.

American Humane Association (1984). Trends in child abuse and neglect: A national perspective. Denver, CO: Author.

Ammerman, R. T., Cassisi, J. E., Hersen, M., & Van Hasselt, V. B. (1986). Consequences of physical abuse and neglect in children. Clinical Psychology Review, 6, 291-310.

Anthony, E. J. & Cohler B. J. (1987). The invulnerable child. New York: Guilford Press.

Antonovsky, A. (1979). Health, stress, and coping. San Francisco, CA: Jossey-Bass.

Bagley, C. & McDonald, M. (1984). Adult mental health sequels of child sexual abuse, physical abuse, and neglect in maternally separated children. Canadian Journal of Community Mental Health, 3(1), 15-26.

Bagley, C. & Ramsay, R. (1985, Feb.). Disrupted childhood and vulnerability to sexual assault: Long-term sequels with implications for counselling. Paper presented to the Conference on Counselling the Sexual Abuse Survivor, Winnipeg, Canada.

Bagley, C, & Ramsay, R. (1985/86). Sexual abuse in

childhood: Psychosocial outcomes and implications for Social Work practice. _Journal of Social Work and Human Sexuality_, _4(1-2)_, 33-47.

Bailey, C. A. & Gibbons, S. G. (1989). Physical victimization and bulimic-like symptoms: Is there a relationship? _Deviant Behavior_, _10(4)_, 335-352.

Barahal, R., Waterman, J., & Martin, H. (1981). The social cognitive development of abused children. _Journal of Consulting and Clinical Psychology_, _49(4)_, 508-516.

Barrerra, M. (1986). Distinctions between social support concepts, measures, and models. _American Journal of Community Psychology_, _14(4)_, 413-445.

Beck, A. T. (1967). _Depression: Clinical experimental and theoretical aspects_. NY: Hoeber.

Beck, A. T. (1976). _Cognitive therapy and the emotional disorders_. NY: International Univ. Press.

Beck, A. T., Rush, A., Shaw, B., & Emery, G. (1979). _Cognitive therapy of depression_. NY: Guilford.

Becker, J., Skinner, L., Abel, G. & Treacy, E. (1982). Incidence and type of sexual dysfunctions in rape and incest victims. _Journal of Sex and Marital Therapy_, _8(1)_, 65-74.

Bedeian, A., Geagud, R., & Zmud, R. (1977). Test-retest reliability and internal consistency of the short form of Coopersmith's Self-Esteem Inventory. _Psychological Reports_, _41_, 1041-1042.

Berliner, L. (1988). Corporal punishment: Institutionalized assault or justifiable discipline? Journal of Interpersonal Violence, 3(2), 222-223.

Billings, A. & Moos, R. (1981). The role of coping responses and social resources in attenuating the stress of life events. Journal of Behavioral Medicine, 4(2), 139-157.

Blau, G. J. (1984). Brief note comparing the Rotter and Levenson measures of locus of control. Perceptual and Motor Skills, 58, 173-174.

Bolton, F., Morris, L., & MacEachron, A. (1989). Males at risk: The other side of child sexual abuse. Newbury Park: Sage.

Bolton, F. & Reich, J. (1977). Delinquency patterns in maltreated children and siblings. Victimology, 2(2), 349-357.

Briere, J. (1988). The long-term clinical correlates of childhood sexual victimization. Annals of the New York Academy of Science, 528, 327-334.

Briere, J. (1989). Therapy for adults molested as children: Beyond survival. New York: Springer.

Briere, J. & Conte, J. (1989, Aug.). Amnesia in adults molested as children: Testing theories of repression. Paper presented at the annual meeting of the American Psychological Association, New Orleans, LA.

Briere, J., Conte, J., & Sexton, D. (1989, Oct.). The link

between childhood sexual abuse and adult revictimization: The results of a national clinical survey. Paper presented at the 8th National Conference on Child Abuse and Neglect, Salt Lake City, Utah.

Briere, J., Evans, D., Runtz, M., & Wall, T. (1988). Symptomatology in men who were molested as children: A comparison study. American Journal of Orthopsychiatry, 58(3), 457-461.

Briere, J., Henschel, D., Smiljanich, K., & Morlan-Magallanes, M. (1990, April). Self-injurious behavior and child abuse history in adult men and women. Paper presented at the National Symposium on Child Victimization, Atlanta, GA.

Briere, J. & Runtz, M. (1986). Suicidal thoughts and behaviours in former sexual abuse victims. Canadian Journal of Behavioural Science, 18, 413-423.

Briere, J. & Runtz, M. (1987). Post Sexual Abuse Trauma: Data and implications for clinical practice. Journal of Interpersonal Violence, 2(4), 367-379.

Briere, J. & Runtz, M. (1988a). Multivariate correlates of childhood psychological and physical maltreatment among university women. Child Abuse and Neglect, 12, 331-341.

Briere, J. & Runtz, M. (1988b). Symptomatology associated with childhood sexual victimization in a nonclinical adult sample. Child Abuse and Neglect, 12, 51-59.

Briere, J. & Runtz, M. (1989). The Trauma Symptom Checklist

(TSC-33): Early data on a new scale. Journal of Interpersonal Violence, 4(2), 151-163.

Briere, J. & Runtz, M. (1990a). Augmenting Hopkins SCL Scales to measure dissociative symptoms: Data from two nonclinical samples. Journal of Personality Assessment, 55, 376-379.

Briere, J. & Runtz, M. (1990b). Differential adult symptomatology associated with three types of child abuse histories. Child Abuse and Neglect, 14, 357-364.

Briere, J. & Zaidi, L. Y. (1989). Sexual abuse histories and sequelae in female psychiatric emergency room patients. American Journal of Psychiatry, 146, 1602-1606.

Brown, G. R. & Anderson B. (1991). Psychiatric morbidity in adult inpatients with childhood histories of sexual and physical abuse. American Journal of Psychiatry, 148, 55-61.

Brown, S. E. (1982). An analysis of the relationship between child abuse and delinquency. Crime and Justice, 5, 47-51.

Browne, A. & Finkelhor, D. (1986a). Impact of child sexual abuse: A review of the research. Psychological Bulletin, 99(1), 66-77.

Browne, A. & Finkelhor, D. (1986b). Initial and long-term effects: A review of the research. In D. Finkelhor (Ed.), Sourcebook on child sexual abuse (pp. 143-179).

Beverly Hills, CA: Sage.

Bryer, J., Nelson, B., Miller, J., & Krol, P. (1987). Childhood sexual and physical abuse as factors in adult psychiatric illness. American Journal of Psychiatry, 144, 1426-1430.

Burgess, A. & Holmstrom, L. (1978). Recovery from rape and prior life stress. Research in Nursing and Health, 1(4), 165-174.

Burgess, A. & Holmstrom, L. (1979). Adaptive strategies and recovery from rape. American Journal of Psychiatry, 136(10), 1278-1282.

Burt, M. R. & Katz, B. L. (1987). Dimensions of recovery from rape: Focus on growth outcomes. Journal of Interpersonal Violence, 2(1), 57-81.

Burt, M. R. & Katz, B. L. (1988). Coping strategies and recovery from rape. Annals of the New York Academy of Sciences, 528, 345-358.

Carlson, V., Cicchetti, D., Barnett, D., & Braunwald, K. (1989). Disorganized/disoriented attachment relationships in maltreated infants. Developmental Psychology, 25, 525-531.

Carmen, E., Rieker, P., & Mills, T. (1984). Victims of violence and psychiatric illness. American Journal of Psychiatry, 141(3), 378-383.

Carson, D., Council, J., & Volk, M. (1987, Aug.). Temperament and adjustment in female adult incest

victims. Paper presented to the annual meeting of the American Psychological Association, New York.

Cavaiola, A. A. & Schiff, M. (1988). Behavioral sequelae of physical and/or sexual abuse in adolescents. Child Abuse and Neglect, 12, 181-188.

Chu, J. A. & Dill, D. L. (1990). Dissociative symptoms in relation to childhood physical and sexual abuse. American Journal of Psychiatry, 147, 887-892.

Cicchetti, D. & Beeghly, M. (1987). Symbolic development in maltreated youngsters: An organizational perspective. New Directions for Child Development, 36, 47-68.

Cicchetti, D. & Rizley, R. (1981). Developmental perspectives on the etiology, intergenerational transmission, and sequelae of child maltreatment. In R. Rizley & D. Cicchetti (Eds.), Developmental perspectives on child maltreatment: New directions for child development (No. 11, pp. 31-55). San Francisco: Jossey-Bass.

Cicchetti, D., Toth, S., & Bush, M. (1988). Developmental psychopathology and incompetence in childhood: Suggestions for intervention. In B. Lahey & A. Kazdin (Eds.), Advances in Clinical Child Psychology (Vol. 11, pp. 1-77). New York: Plenum.

Coates, D. & Winston, T. (1983). Counteracting the deviance of depression: Peer support groups for victims. Journal of Social Issues, 39, 169-194.

Cochran, C. D. & Hale, W. D. (1985). College student norms on the Brief Symptom Inventory. Journal of Clinical Psychology, 41, 777-779.

Cochran, S. & Hammen, C. (1984). Perceptions of stressful life events and depression: A test of attributional models. Journal of Personality and Social Psychology.

Cohen, J. (1977). Statistical power analysis for the behavioral sciences. New York: Guilford Press.

Cohen, J. A. & Mannarino, A. P. (1988). Psychological symptoms in sexually abused girls. Child Abuse and Neglect, 12, 571-577.

Cohen, L. H., McGowan, J., Fooskas, S., & Rose, S. (1984) Positive life events and social support and the relationship between life stress and psychological disorder. American Journal of Community Psychology, 12(5), 567-587.

Cohen, S. & Hoberman, H. (1983). Positive events and social supports as buffers of life change stress. Journal of Applied Social Psychology, 13(2), 99-125.

Cohen, S. & McKay, G. (1984). Social support, stress, and the buffering hypothesis: A theoretical analysis. In A. Baum, S. E. Taylor, & J. E. Singer (Eds.), Handbook of psychology and health, vol. IV. Hillsdale, NJ: Lawrence Erlbaum.

Cole, C. (1986, May). Differential long-term effects of child sexual and physical abuse. Paper presented to the

Fourth National Conference on Sexual Victimization of Children, New Orleans, LA.

Committee on Sexual Offenses Against Children and Youth (1984). Sexual Offenses against children in Canada: Summary. Ottawa: Supply and Services Canada.

Conte, J., Briere, J., & Sexton, D. (1989, Aug.). Moderators of long-term symptomatology in women molested as children. Paper presented to the annual meeting of the American Psychological Association, New Orleans, LA.

Conte, J., Briere, J., & Sexton, D. (1989, Oct.). Sex differences in the long-term effects of sexual abuse: The results of a national clinical survey. Paper presented at the 8th National Conference on Child Abuse and Neglect, Salt Lake City, Utah.

Conte, J. & Schuerman, J. (1987). Factors associated with an increased impact of child sexual abuse. Child Abuse and Neglect, 11, 201-211.

Coopersmith, S. (1967). The antecedents of self-esteem. San Francisco, CA: Freeman.

Coopersmith, S. (1981). Manual of the Adult Self-Esteem Scale. Palo Alto, CA: Consulting Psychologists Press.

Courtois, C. (1979). The incest experience and its aftermath. Victimology, 4(4), 337-347.

Courtois, C. (1988). Healing the incest wound: Adult survivors in therapy. NY: Norton.

Coyne, J. C. & Gotlib, I. H. (1983). The role of cognition

in depression: A critical appraisal. Psychological Bulletin, 94(3), 472-505.

Crittenden, P. M. & Ainsworth, M. D. S. (1989). Child maltreatment and attachment theory. In D. Cicchetti & V. Carlson (Eds.), Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect (pp. 432-563). Cambridge: Cambridge University Press.

Cunningham, J., Pearce, T., & Pearce, P. (1988). Childhood sexual abuse and medical complaints in adult women. Journal of Interpersonal Violence, 3(2), 131-144.

DeMause, L. (1974). The history of childhood. New York: Psychohistory Press.

Derogatis, L., Lipman, R., & Covi, L. (1973). SCL-90: An outpatient psychiatric rating scale--Preliminary report. Psychopharmacology Bulletin, 9, 13-28.

Derogatis, L. R. & Melisaratos, N. (1983). The Brief Symptom Inventory: An introductory report. Psychological Medicine, 13, 595-605.

Derogatis, L. & Spencer, P. (1982). The Brief Symptom Inventory (BSI): Administration, scoring and procedures manual-I. Baltimore, MD: Clinical Psychometric Research.

Downs, W. R., Miller, B. A., & Gondoli, D. M. (1987). Childhood experiences of parental physical violence for alcoholic women as compared with a randomly selected household sample of women, Violence and Victims, 2(4), 225-240.

Egeland, B. & Jacobovitz, D. (1984). Intergenerational continuity of parental abuse: Causes and consequences. Paper presented at the Conference on Biosocial Perspectives in Abuse and Neglect, York, Maine.

Egeland, B. & Sroufe, L. (1981). Developmental sequelae of maltreatment in infancy. In R. Rizley & D. Cicchetti (Eds.), Developmental perspectives on child maltreatment: New directions for child development (No. 11, pp. 77-92). San Francisco: Jossey-Bass.

Egeland, B., Sroufe, L., & Erickson, M. (1984). The developmental consequences of different patterns of maltreatment. Child Abuse and Neglect, 7, 459-469.

Elliot, D. M. & Briere, J. (1990, April). Predicting molestation history in professional women with the Trauma Symptom Checklist (TSC-40). Paper presented at the annual meeting of the Western Psychological Association, Los Angeles, CA.

Ellis, E. M. (1983). A review of empirical rape research: Victim reactions and response to treatment. Clinical Psychology Review, 3, 473-490.

Everson, M., Hunter, W., Runyan, D., Edelsohn, G., & Coulter, M. (1989). Maternal support following disclosure of incest. American Journal of Orthopsychiatry, 59, 198-207.

Farber, E. A. & Egeland, B. (1987). Invulnerability among abused and neglected children. In E. J. Anthony & B. J.

Cohler (Eds.), The invulnerable child (pp. 253-289). New York: Guilford.

Farrington, D. P. (1978). The family backgrounds of aggressive youths. In L. A. Hersov and M. Berger (Eds.), Aggression and antisocial behavior in childhood and adolescence. Book Supplement to the Journal of Child Psychology and Psychiatry, (No. 1). New York: Pergamon.

Farrington, D. P. (1989). Early predictors of adolescent aggression and adult violence. Violence and Victims, 4, 79-100.

Fatout, M. F. (1990). Aggression: A characteristic of physically abused latency-age children. Child & Adolescent Social Work Journal, 7, 365-376.

Finkelhor, D. (1979a). Sexually Victimized Children. New York: Free Press.

Finkelhor, D. (1979b). What's wrong with sex between adults and children? Ethics and the problem of sexual abuse. American Journal of Orthopsychiatry, 49, 692-697.

Finkelhor, D. (1984). Child sexual abuse: New theory and research. New York: Free Press.

Finkelhor, D. (1990). Early and long-term effects of child sexual abuse: An update. Professional Psychology: Research and Practice, 21(5), 325-330.

Finkelhor, D. & Baron, L. (1986). High-risk children. In D. Finkelhor (Ed.), A sourcebook on child sexual abuse (pp. 60-88). Beverly Hills, CA: Sage.

Finkelhor, D. & Browne, A. (1985). The traumatic impact of child sexual abuse: A conceptualization. American Journal of Orthopsychiatry, 55(4), 530-541.

Finkelhor, D., Hotaling, G., Lewis, I. A., & Smith, C. (1990). Sexual abuse in a national survey of adult men and women: Prevalence, characteristics, and risk factors. Child Abuse and Neglect, 14, 19-28.

Fiore, J., Coppel, D., Becker, J., & Cox, G. (1986). Social support as a multifaceted concept: Examination of important dimensions for adjustment. American Journal of Community Psychology, 14(1), 93-111.

Folkman, S., Schaefer, C., & Lazarus, R. (1979). Cognitive processes as mediators of stress and coping. In V. Hamilton & D. W. Warburton (Eds.), Human stress and cognition: An informational approach (pp. 265-297). New York: John Wiley.

Friedrich, W. N. (1988). Behavior problems in sexually abused children: An adaptational perspective. In G. E. Wyatt, & G. J. Powell (Eds.), Lasting effects of child sexual abuse (pp. 171-191). Beverly Hills: Sage.

Friedrich, W. N. (1990). Psychotherapy of sexually abused children and their families. New York: Norton.

Friedrich, W. & Einbender, A. (1983). The abused child: A psychological review. Journal of Clinical Child Psychology, 12, 244-256.

Friedrich, W., Einbender, A., & Luecke, W. (1983).

Cognitive and behavioral characteristics of physically abused children. Journal of Consulting and Clinical Psychology, 51, 313-314.

Friedrich, W., Urquiza, A., & Beilke, R. (1986). Behavior problems in sexually abused young children. Journal of Pediatric Psychology, 11(1), 47-57.

Fromuth, M. E. (1986). The relationship of childhood sexual abuse with later psychological and sexual adjustment in a sample of college women. Child Abuse and Neglect, 10, 5-15.

Garmezy, N. (1983). Stressors of childhood. In N. Garmezy & M. Rutter (Eds.), Stress, coping and development in children. New York: McGraw-Hill.

Garmezy, N. (1985). Stress resistant children: The search for protective factors. In J. Stevenson (Ed.), Recent Research in Developmental Psychopathology. Oxford: Pergamon Press.

Gelinas, D. (1983). The persisting negative effects of incest. Psychiatry, 43, 312-332.

Gelles, R. J. (1980). A profile of violence toward children in the United States. In G. Gerbner, E. Ross, & E. Zigler (Eds.), Child abuse: An agenda for action (pp. 82-105). New York: Oxford University Press.

Gelles, R. J. (1982). Problems in defining and labeling child abuse. In R. H. Starr, Jr. (Ed.), Child Abuse Prediction: Policy Implications (pp. 1-30). Cambridge:

Ballinger.

Gelles, R. J. & Straus, M. A. (1987). Is violence toward children increasing? A comparison of the 1975 and 1985 national survey rates. Journal of Interpersonal Violence, 2(2), 212-222.

George, C. & Main, M. (1979). Social interactions of young abused children: Approach, avoidance, and aggression. Child Development, 50, 306-318.

Geraldo, M. & Sanford, E. (1987). Child abuse and neglect: A review of the literature. School Psychology Review, 16(2), 137-155.

Gidycz, C. A. & Koss, M. P. (1989). The impact of adolescent sexual victimization: Standardized measures of anxiety, depression, and behavioral deviancy. Violence and Victims, 4(2), 139-149.

Gil, D. (1970). Violence against children: Physical abuse in the United States. Cambridge, MA: Harvard University Press.

Gilbert, C. M. (1988). Psychosomatic symptoms: Implications for child sexual abuse. Issues in Mental Health Nursing, 9(4), 399-408.

Gilligan, C. (1982). In a different voice: Psychological theory and women's development. Cambridge, MA: Harvard University Press.

Ginsburg, H., Wright, L. S., Harrell, P. M., & Hill, D. W. (1989). Childhood victimization: Desensitization

effects in the later lifespan. Child Psychiatry and Human Development, 20(1), 59-71.

Gold, E. (1986). Long-term effects of sexual victimization in childhood: An attributional approach. Journal of Consulting and Clinical Psychology, 54(4), 471-475.

Gorsuch, R. L. (1983). Factor analysis, 2nd. Ed. Hillsdale, NJ: Lawrence Erlbaum.

Graziano, A. M. & Namaste, K. A. (1990). Parental use of physical force in child discipline. Journal of Interpersonal Violence, 5, 449-463.

Green, A. H. (1980). Child maltreatment: A handbook for mental health and child care professionals. New York: Jason Aronson.

Groth, A. N. (1979). Men who rape: The psychology of the offender. New York: Plenum Press.

Hammen, C. L. (1985). Predicting depression: A cognitive-behavioral perspective. In P. Kendall (Ed.), Advances in cognitive behavioral research and therapy, Vol. 4. NY: Academic Press.

Hart, L. E., Mader, L., Griffith, K. & deMendonca, M. (1989). Effects of sexual and physical abuse: A comparison of adolescent inpatients. Child Psychiatry and Human Development, 20(1), 49-57.

Harter, S., Alexander, P., & Neimeyer, R. (1988). Long-term effects of incestuous child abuse in college women: Social adjustment, social cognition, and family

characteristics. Journal of Consulting and Clinical Psychology, 54(4), 466-470.

Haskett, M. E. (1990). Social problem-solving skills of young physically abused children. Child Psychiatry and Human Development, 21, 109-118.

Hedges, L. & Becker, B. (1986). Statistical methods in meta-analysis of research on gender differences. In J.S. Hyde, & M.C. Linn (Eds.), The psychology of gender: Advances through meta-analysis (pp. 14-50). Baltimore: John Hopkins University Press.

Heller, K., Swindel, R. & Dusenbury, L. (1986). Component social support processes: Comments and integration. Journal of Consulting and Clinical Psychology, 54, 466-470.

Herman, J. L. (1981). Father-daughter incest. Cambridge, Mass.: Harvard University Press.

Herman, J. L. (1986). Histories of violence in an outpatient population: An exploratory study. American Journal of Orthopsychiatry, 56(1), 137-141.

Herman, J. L., Russell, D., & Trocki, K. (1986). Long-term effects of incestuous abuse in childhood. American Journal of Psychiatry, 143(10), 1293-1296.

Herman, J. L. & Schatzow, E. (1984). Time-limited group therapy for women with a history of incest. International Journal of Group Psychotherapy, 34, 605-616.

Horowitz, M. (1976). Stress response syndromes. New York: Jason Aronson.

Horowitz, M., Wilner, N., & Alvarez, W. (1979). Impact of event scale: A measure of subjective stress. Psychological Medicine, 41, 209-218.

Howes, C. & Espinosa, M. (1985). The consequences of child abuse for the formation of relationships with peers. Child Abuse and Neglect, 9, 397-404.

Husaini, B. & Von Frank, A. (1985). Life events, coping resources, and depression: A longitudinal study of direct, buffering, and reciprocal effects. Research in Community and Mental Health, 5, 111-136.

Hyman, I. A. (1988). Should children ever be hit? A contemporary answer to an historical question. Journal of Interpersonal Violence, 3, 227-230.

Jaffe, P., Wolfe, D., Wilson, S., & Zak, L. (1986). Similarities in behavioral and social maladjustment among child victims and witnesses to family violence. American Journal of Orthopsychiatry, 56, 142-146.

James, J. & Meyerding, J. (1977). Early sexual experience and prostitution. American Journal of Psychiatry, 134(12), 1381-1385.

Janoff-Bulman, R. & Frieze, I. (1983). A theoretical perspective for understanding reactions to victimization. Journal of Social Issues, 39(2), 1-17.

Jehu, D. (1988). Beyond sexual abuse: Therapy with women

who were childhood victims. New York: Wiley.

Jehu, D. & Gazan, M. (1983). Psychosocial adjustment of women who were sexually victimized in childhood or adolescence. Canadian Journal of Community Mental Health, 2(2), 71-82.

Jehu, D., Gazan, M., & Klassen, C. (1984/85). Common therapeutic targets among women who were sexually abused. Journal of Social Work and Human Sexuality, 3, 25-45.

Jehu, D., Klassen, C., & Gazan, M. (1985/86). Cognitive restructuring of disturbed beliefs associated with childhood sexual abuse. Journal of Social Work and Human Sexuality, 4, 49-69.

Kaufman, J. & Cicchetti, D. (1989). Effects of maltreatment on school-age children's socioemotional development: Assessments in a day-camp setting. Developmental Psychology, 25, 516-524.

Kaufman, J. & Zigler, E. (1989). The intergenerational transmission of child abuse and the prospect of predicting future abusers. In D. Cicchetti & V. Carlson (Eds.), Child maltreatment: Research and theory on the causes and consequences of child abuse and neglect (pp., 129-150). New York: Cambridge University Press.

Kazdin, A., Moser, J., Colbus, D., & Bell, R. (1985). Depressive symptoms among physically abused children and psychiatrically disturbed children. Journal of Abnormal Psychology, 94(3), 298-307.

Kempe, C., Silverman, F, Steele, B., Droegmueller, W., & Silver, H. (1962). The battered child syndrome. Journal of the American Medical Association, 181, 17-24.

Kercher, G. & McShane, M. (1984). The prevalence of child sexual abuse victimization in an adult sample of Texas residents. Child Abuse and Neglect, 8, 495-502.

Kessler, R., Price, R., & Wortman, C. (1985). Social factors in psychopathology: Stress, social support, and coping processes. Annual Review of Psychology, 36, 531-572.

Kinard, E. (1980). Emotional development in physically abused children. American Journal of Orthopsychiatry, 50, 686-696.

Knudsen, D. D. (1988). Child maltreatment over two decades: Change or continuity? Violence and Victims, 3(2), 129-144.

Kokenes, B. (1978). A factor analytic study of the Coopersmith Self-esteem Inventory. Adolescence, 13, 149-155.

Kolko, D. J., Moser, J. T., & Weldy, S. R. (1988). Behavioral/emotional indicators of sexual abuse in psychiatric inpatients: A controlled comparison with physical abuse. Child Abuse and Neglect, 12, 529-541.

Kroll, P., Stock, D., & James, M. (1985). The behavior of adult alcoholic men abused as children. The Journal of Nervous and Mental Disease, 173, 689-693.

Lamphear, V. S. (1985). The impact of maltreatment on children's psychosocial adjustment: A review of the research. Child Abuse and Neglect, 9, 251-263.

Langmade, C. J. (1983). The impact of pre- and postpubertal onset of incest experiences in adult women as measured by sex anxiety, sex guilt, sexual satisfaction and sexual behavior. Dissertation Abstracts International, 44, 917B.

Lanktree, C., Briere, J., Denschel, D., Morlan-Magallanes, M. & Smiljanich, K. (1990, April). Type and extent of child abuse history associated with pelvic complaints in university women. Paper presented at the National Symposium of Child Victimization, Atlanta, GA.

Lanktree, C., Zaidi, L., Briere, J., & Gutierrez, V. (1989, August). Differential identification of sexually abused children in psychiatric outpatient charts. Paper presented at the annual meeting of the American Psychological Association, New Orleans, LA.

Larzelere, R. E. (1986). Moderate spanking: Model or deterrent of children's aggression in the family? Journal of Family Violence, 1(1), 27-36.

Lazarus, R. (1966). Psychological stress and the coping process. NY: McGraw-Hill.

Lazarus R. & Folkman, S. (1984). Stress, appraisal, and coping. NY: Springer.

Lazarus, R. & Launier, R. (1978). Stress-related

transactions between person and environment. In L. Pervin & M. Lewis (Eds.), Perspectives in Interactional Psychology. NY: Plenum Press.

Levenson, H. (1974). Activism and powerful others: Distinctions within the concept of Internal-External Control. Journal of Personality Assessment, 38, 377-383.

Leavy, R. L. (1983). Social support and psychological disorder: A review. Journal of Community Psychology, 11, 3-21.

Lewis, D. O., Mallouh, C., & Webb, V. (1989). Child abuse, delinquency, and violent criminality. In D. Cicchetti & V. Carlson (Eds.), Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect (pp. 707-721). Cambridge: Cambridge University Press.

Lewis, D. O., Shanok, S. S., Pincus, J. H., & Glaser, G. H. (1979). Violent juvenile delinquents: Psychiatric, neurological, psychological, and abuse factors. Journal of American Academy of Child Psychiatry, 18, 307-319.

Livingston, R. (1987). Sexually and physically abused children. Journal of the American Academy of Child And Adolescent Psychiatry, 26, 413-415.

Main, M. Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood. In I. Bretherton & E. Wates (Eds.), Growing points of attachment theory and research. Monographs for the Society for Research in

Child Development, 50 (Serial No. 209, Nos. 1-2).

McCord, J. (1983). A forty year perspective on effects of child abuse and neglect. Child Abuse and Neglect, 7, 265-270.

McFarlane, A., Norman, G., Streiner, D., & Roy, R. (1983). The process of social stress: Stable, reciprocal, and mediating relationships. Journal of Health and Social Behavior, 24, 160-173.

McGee, R., Wolfe, D., Yuen, S., & Carnochan, J. (1991, April). The measurement of child maltreatment: A comparison of approaches. Poster presented at the Biennial Meeting of the Society for Research in Child Development, Seattle, WA.

McGuire, L. & Wagner, N. (1978). Sexual dysfunction in women who were molested as children: One response pattern and suggestions for treatment. Journal of Sex and Marital Therapy, 4(1), 11-15.

Meiselman, K. (1978). Incest: A psychological study of causes and effects with treatment recommendations. San Francisco: Jossey-Bass.

Meyer, C. & Taylor, S. (1986). Adjustment to rape. Journal of Personality and Social Psychology, 50(6), 1226-1234.

Miller, D.T. & Porter, C. A. (1983). Self-blame in victims of violence. Journal of Social Issues, 39(2), 139-152.

Miller, J. B. (1976). Toward a new psychology of women. Boston: Beacon.

Miller, P. (1976). Blaming the victim of child molestation: An empirical analysis. Doctoral dissertation, Northwestern University. Dissertation Abstracts International, (University Microfilms No. MO 77-10069).

Mitchell, R. E. & Hodson, C. A. (1983). Coping with domestic violence: Social support and psychological health among battered women. American Journal of Community Psychology, 11(6), 629-654.

Monane, M., Leichter, D., & Lewis, D. O. (1984). Physical abuse in psychiatrically hospitalized children and adolescents. Journal of the American Academy of Child Psychiatry, 23, 653-658.

Moos, R. (1977). Coping with physical illness. NY: Plenum.

Morrison, J. (1989). Childhood molestation reported by women with somatization disorder. Annals of Clinical Psychiatry, 1(1), 25-32.

Mrazek, P. & Mrazek, D. (1981). The effects of child sexual abuse: Methodological considerations. In P. Mrazek & C. Kempe (Eds.), Sexually abused children and their families. New York: Pergamon Press.

Mrazek, P. & Mrazek, D. (1987). Resilience in child maltreatment victims: A conceptual exploration. Child Abuse and Neglect, 11, 357-366.

Murphy, S., Kilpatrick, D., Amick-McMullan, Veronen, L., Paduhovich, J., Best, C., Villeponteaux, L., & Saunders, B. (1988). Current psychological functioning of child

sexual assault survivors: A community study. Journal of Interpersonal Violence, 3(1), 55-79.

Norris, J. & Feldman-Summers, S. (1981). Factors related to the psychological impact of rape on the victim. Journal of Abnormal Psychology, 90, 562-567.

Oates, R., Forrest, D., & Peacock, A. (1985). Self-esteem of abused children. Child Abuse and Neglect, 9(2), 159-163.

Ogata, S. N., Silk, K. R., Goodrich, S., Lohr, N. E., Westen, D., & Hill, E. M. (1990). Childhood sexual and physical abuse in adult patients with borderline personality disorder. American Journal of Psychiatry, 147, 1008-1013.

Pearlin, L., Lieberman, M., Menaghan, E., & Mullan, J. (1981). The stress process. Journal of Health and Social Behavior, 22, 337-356.

Peters, S. D. (1988). Child sexual abuse and later psychological problems. In G. E. Wyatt & G. J. Powell (Eds.), Lasting effects of child sexual abuse (pp. 101-117). Newbury Park, CA: Sage.

Peters, S., Wyatt, G. & Finkelhor, D. (1986). Prevalence. In D. Finkelhor (Ed.), A sourcebook on child sexual abuse (pp. 15-59). Beverly Hills, CA: Sage.

Peterson, C. & Seligman, M. (1983). Learned helplessness and victimization. Journal of Social Issues, 39(2), 103-116.

Pierce, R. & Pierce, L. H. (1985). The sexually abused child: A comparison of male and female victims. Child Abuse and Neglect, 9, 191-199.

Pollock, V. E., Briere, J., Schneider, L., Knop, J., Mednick, S. A., & Goodwin, D. W. (1990). Childhood antecedents of antisocial behavior: Parental alcoholism and physical abusiveness. American Journal of Psychiatry, 147(10), 1290-1293.

Pyle, E. A. & Goodman, G. S. (1987, Aug.). Sex differences in the initial impact of child sexual abuse. Paper presented at the annual meeting of the American Psychological Association, New York.

Reidy, T. J. (1977). The aggressive characteristics of abused and neglected children. Journal of Clinical Psychology, 33, 1140-1145.

Rieder, C. & Cicchetti, D. (1989). Organizational perspective on cognitive control functioning and cognitive-affective balance in maltreated children. Developmental Psychology, 25, 382-393.

Rimsza, M. E., Berg, R. A., & Locke, C. (1988). Sexual abuse: Somatic and emotional reactions. Child Abuse and Neglect, 12(2), 201-208.

Rivera, B. & Widom, C. S. (1990). Childhood victimization and violent offending. Violence and Victims, 5(1), 19-35.

Rook, K. S. (1984). The negative side of social

interaction: Impact on psychological well-being. Journal of Personality and Social Psychology, 46, 1097-1108.

Root, M., Fallon, P., & Friedrich, W. (1986). Bulimia: A systems approach to treatment. New York: W. W. Norton.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 80, No. 1.

Runtz, M. G. (1987). The psychosocial adjustment of women who were sexually and physically abused during childhood and early adulthood: A focus on revictimization. Unpublished Master's thesis, University of Manitoba.

Runtz, M. & Briere, J. (1986). Adolescent "acting-out" and childhood history of sexual abuse. Journal of Interpersonal Violence, 1, 326-334.

Runtz, M. & Briere, J. (1988, April). Childhood sexual abuse, revictimization as an adult, and current symptomatology. Paper presented to the National Symposium on Child Victimization, Anaheim, CA.

Runtz, M. & Schallow, J. (1988). [Structural analysis of child abuse and adjustment variables]. Unpublished raw data.

Russell, D. E. H. (1983). The incidence and prevalence of intrafamilial and extrafamilial sexual abuse of female children. Child Abuse and Neglect, 7, 133-146.

Russell, D. E. H. (1986). The secret trauma: Incest in the

lives of girls and women. NY: Basic Books.

Russell, D. E. H. (1988). The incidence and prevalence of intrafamilial and extrafamilial sexual abuse of female children. In L. Walker (Ed.), Handbook on sexual abuse of children (pp. 19-36). New York: Springer.

Rutter, M. (1987). Psychosocial resilience and protective mechanisms. American Journal of Orthopsychiatry, 57(3), 316-331.

Rutter, M. (1980). Protective factors in children's response to stress and disadvantage. In M. Kent, & J. Rolf (Eds.), Primary prevention of psychopathology. III. Promoting social competence and coping in children (pp. 49-74). Hanover, NH: University Press of New England.

Sales, E., Baum, M., & Shore, B. (1984). Victim readjustment following assault. Journal of Social Issues, 40(1), 117-136.

Salter, A. C. (1988). Treating child sex offenders and victims: A practical guide. Newbury Park: Sage.

Sanders, B. & Giolas, M. H. (1991). Dissociation and childhood trauma in psychologically disturbed adolescents. American Journal of Psychiatry, 148, 50-54.

Schaefer, M. R., Sobieraj, K., & Hollyfield, R. L. (1988). Prevalence of childhood physical abuse in adult male veteran alcoholics. Child Abuse and Neglect, 12, 141-149.

Schneider-Rosen, K., Braunwald, K. G., Carlson, V., &

Cicchetti, D. (1985). Current perspectives in attachment theory: Illustration from the study of maltreated infants. Monographs of the Society for Research in Child Development, 50, 194-210.

Schneider-Rosen, K. & Cicchetti, D. (1984). The relationship between affect and cognition in maltreated infants: Quality of attachment and the development of visual self-recognition. Child Development, 55, 648-658.

Sedney, M. A. & Brooks, B. (1984). Factors associated with a history of childhood sexual experience in a nonclinical female population. Journal of the American Academy of Child Psychiatry, 23, 215-218.

Seligman, M. E. P. (1975). Helplessness: On depression, development, and death. San Francisco: Freeman.

Seligman, M., Abramson, L., Semmel, A., & von Baeyer, C. (1979). Depressive attributional style. Journal of Abnormal Psychology, 88, 242-247.

Sheldon, H. (1988). Childhood sexual abuse in adult female psychotherapy referrals. British Journal of Psychiatry, 152, 107-111.

Sherer, M., Maddux, J., Mercandante, B., Prentice-Dunn, S., Jacobs, B., and Rogers, R. (1982). The Self-Efficacy Scale: Construction and validation. Psychological Reports, 51, 663-671.

Shinn, M., Lehmann, S., & Wong, N. W. (1984). Social interaction and social support. Journal of Social

Issues, 40(4), 55-76.

Shumaker, S. & Brownell, A. (1984). Toward a theory of social support: Closing conceptual gaps. Journal of Social Issues, 40(4), 11-36.

Silbert, M. & Pines, A. (1981). Sexual child abuse as an antecedent to prostitution. Child Abuse and Neglect, 5, 407-411.

Silver, R. L., Boon, C., & Stones M.H. (1983). Searching for meaning in misfortune: Making sense of incest. Journal of Social Issues, 39(2), 81-102.

Silver, R. L. & Wortman, C.B. (1980). Coping with undesirable life events. In J. Garber & M. Seligman (Eds.), Human helplessness: Theory and applications. NY: Academic Press.

Singer, S. I (1986). Victims of serious violence and their criminal behavior: Subcultural theory and beyond. Violence and Victims, 1, 61-70.

Spiegler, M. D. & Liebert, R. M. (1970). Some correlates of self-reported fear. Psychological Reports, 26, 691-695.

SPSS Inc. (1986). SPSS-X user's guide (2nd Edition). New York: McGraw-Hill.

Starker, J. (1986). Methodological and conceptual issues in research on social support. Hospital and Community Psychiatry, 37(5), 485-490.

Steele, B. F. & Pollock, D. (1968). A psychiatric study of parents who abuse infants and small children. In C. H.

Kempe & R. E. Helfer (Eds.), The battered child (2nd ed.). Chicago: University of Chicago Press.

Stein, J., Golding, J., Siegel, J., Burnam, M. A., & Sorenson, S. B. (1988). Long-term psychological sequelae of child sexual abuse: The Los Angeles Epidemiologic Catchment Area Study. In G. E. Wyatt & G. J. Powell (Eds.), Lasting effects of child sexual abuse (pp. 135-154). Newbury Park, CA: Sage.

Straus, M. A. (1983). Ordinary violence, child abuse, and wife beating: What do they have in common? In D. Finkelhor, R. J. Gelles, G. T. Hotaling, & M. A. Straus (Eds.), The dark side of families: Current family violence research (pp. 213-234). Beverly Hills, CA: Sage.

Straus, M. A. & Gelles, R. J. (1986). Societal change and change in family violence from 1975 to 1985 as revealed by two national surveys. Journal of Marriage and the Family, 48, 465-479.

Straus, M. A. & Gelles, R. J. (1988). How violent are American families? Estimates from the National Family Violence Survey and other studies. In G. T. Hotaling, D. Finkelhor, J. T. Kirkpatrick, & M. A. Straus (Eds.), Family abuse and its consequences: New directions in research (pp. 14-36). London: Sage.

Straus, M. A., Gelles, R. J., & Steinmetz, S. (1980). Behind closed doors: Violence in the American family. Garden City, New York: Doubleday/Anchor.

Surrey, J. Swett, C., Michaels, A., & Levin, S. (1990). Reported history of physical and sexual abuse and severity of symptomatology in women psychiatric outpatients. <u>American Journal of Orthopsychiatry</u>, <u>60</u>, 412-417.

Swett, C., Surrey, J., & Cohen C. (1990). Sexual and physical abuse histories and psychiatric symptoms among male psychiatric outpatients. <u>American Journal of Psychiatry</u>, <u>147</u>, 632-636.

Tabachnick, B. G. & Fidell, L. S. (1983). <u>Using multivariate statistics</u>. New York: Harper & Row.

Tharinger, D. (1990). Impact of child sexual abuse on developing sexuality. <u>Professional Psychology: Research and Practice</u>, <u>21(5)</u>, 331-337.

Thoits, P. A. (1982). Conceptual, methodological, and theoretical problems in studying social support as a buffer against stress. <u>Journal of Health and Social Behavior</u>, <u>23</u>, 145-159.

Tsai, M., Feldman-Summers, S., & Edgar, M. (1979). Childhood molestation: Variables related to differential impacts on psychosexual functioning in adult women. <u>Journal of Abnormal Psychology</u>, <u>88</u>, 407-417.

Tsai, M. & Wagner, N. N. (1978). Therapy groups for women sexually molested as children. <u>Archives of Sexual Behavior</u>, <u>7(5)</u>, 417-427.

Turner, R., Frankel, B., & Levin, D. (1983). Social

support: Conceptualization, measurement, and implications for mental health. Research in Community and Mental Health, 3, 67-111.

Urquiza, A. (1988, April). The long-term adjustment of young men with sexually abusive childhood experiences. Paper presented to the National Symposium on Child Victimization, Anaheim, CA.

Urquiza, A. & Crowley, C. (1986, May). Sex differences in the survivors of childhood sexual abuse. Paper presented at the Fourth National Conference on the Sexual Victimization of Children, New Orleans.

Vander Mey, B. J. (1988). The sexual victimization of male children: A review of previous research. Child Abuse and Neglect, 12, 61-72.

Vondra, J., Barnett, D., & Cicchetti, D. (1989). Perceived and actual competence among maltreated and comparison school children. Development and Psychopathology, 1(3), 237-255.

Weiss, R. (1974). The provisions of social relationship. In Z. Rubin (Ed.), Doing unto others. Englewood Cliff, NJ: Prentice-Hall.

Welsh, R. S. (1976). Severe parental punishment and delinquency: A developmental theory. Journal of Clinical Child Psychology, 5, 17-21.

Werner, E. & Smith, R. (1982). Vulnerable but invincible: A longitudinal study of resilient children and youth. New

York: McGraw-Hill.

Wethington, E. & Kessler, R. (1986). Perceived support, received support and adjustment to stressful life events. Journal of Health and Social Behavior, 27, 78-89.

Widom, C. S. (1989a). Does violence beget violence? A critical examination of the literature. Psychological Bulletin, 106, 3-28.

Widom, C. S. (1989b). The intergenerational transmission of violence. In N.A. Weiner & M.E. Wolfgang (Eds.), Pathway to criminal violence (pp. 137-201). Newbury Park, CA: Sage.

Wilson, G. D. (1967). Social desirability and sex differences in expressed fear. Behavior Research and Therapy, 5, 136-137.

Wolfe, D. A. (1987). Child abuse: Implications for child development and psychopathology. Newbury Park, CA: Sage.

Wolfe, D. A. & Mosk, M. D. (1983). Behavioral comparisons of children from abusive and distressed families. Journal of Consulting and Clinical Psychology, 51, 702-708.

Wolfe, D. A., Wolfe, V. V., & Best, C. L. (1988). Child victims of sexual abuse. In V. Van Hasselt, R. Morrison, A. Bellack, & M. Hersen (Eds.), Handbook of family violence (pp. 157-185). New York: Plenum Press.

Wortman, C. B. (1983). Coping with victimization: Conclusions and implications for future research.

Journal of Social Issues, 39(2), 195-221.

Wyatt, G. E. (1985). The sexual abuse of Afro-American and White American women in childhood. Child Abuse and Neglect, 9, 507-519.

Wyatt, G. & Mickey, M. (1987). Ameliorating the effects of child sexual abuse: An exploratory study of support by parents and others. Journal of Interpersonal Violence, 2(4), 403-414.

Zilberg, N., Weiss, D., & Horowitz, M. (1982). Impact of event scale: A cross-validation study and some empirical evidence supporting a conceptual model of stress response syndromes. Journal of Consulting and Clinical Psychology, 50, 407-414.

Zimrin, H. (1986). A profile of survival. Child Abuse and Neglect, 10, 339-349.

Appendix A: Questionnaire[1]

Dear Student:

We would like to ask you to participate in this study of attitudes and the family experiences by filling out this questionnaire. Some of the questions here are very personal. Because they are personal, social scientists have been reluctant to investigate them in the past. If social scientists are to help families and society to become healthier environments for growing up, if we are to help answer questions about important social issues like parent-child relationships, family discipline, child abuse, and so forth, we need to know more about these personal things.

We hope that with this in mind, and the knowledge that EVERYTHING YOU ANSWER HERE IS COMPLETELY ANONYMOUS, that you will decide to participate. Keep in mind that you are under no obligation to participate, however. As much as we would like your cooperation, you should feel free to not fill out a questionnaire. In fact, if at any point while filling out the questionnaire you decide that you no longer wish to participate, you may stop wherever you are and fill in no more. Simply turn in your questionnaire at the end of the period along with everyone else, and no one will be aware that your questionnaire is incomplete. If you choose to leave the experiment you will not lose your experimental credit.

All questionnaires are completely anonymous. Nowhere on the questionnaire do we ask for your name, and we have carefully avoided asking questions that might identify you indirectly. All questionnaires will be guarded carefully, and no one but the researcher will have access to them.

If you have chosen to answer this questionnaire, please proceed to the next page and begin. Please answer all questions as honestly as you can and remember not to put your name or student number on any of the forms. Please be sure to hand in the questionnaire plus the three IBM sheets together when you are finished.

Thank-you for your cooperation.

Marsha Runtz, M.A.
John Schallow, Ph.D.
Department of Psychology
University of Manitoba

---

[1] Note. The titles of the scales making up the questionnaire did not appear on the forms completed by the subjects. Also, the actual survey used in the study was only 18 pages long due to a smaller print used.

PART 1 (Demographic Information)

Demographic information is collected for statistical purposes only.

Please write your age at the top of the first IBM sheet and begin answering question 1 on IBM sheet number 1.

1) Sex: female = 1 male = 2

2) Marital status:
   single = 1
   married or living as married = 2
   separated or divorced = 3
   other = 4

3) Year in program at university: (e.g., 1, 2, or 3,...)

4) Living arrangements:
   with parents = 1
   alone = 2
   with friends or other family = 3
   with spouse or partner = 4
   residence = 5

5) Number of children in your family, including yourself, even if you don't live with them now.
   one=1 two=2 three=3 four=4 five or more=5

6) In your family, are you:
   the only child = 1
   the youngest child = 2
   in the middle = 3
   the oldest = 4

7) Estimated yearly family income when you were 18 years and younger.
   <$10,000/yr. = 1
   $10-20,000/yr. = 2
   $20-30,000/yr. = 3
   $30-40,000/yr. = 4
   >$40,000/yr. = 5

8) Estimated size of the town or city you lived in the longest when you were 18 years of age or younger.
   farm or town of 10,000 people or less = 1
   11-50,000 people = 2
   51-150,000 people = 3
   151-300,000 people = 4
   more than 300,000 people = 5

PART 2 (Provisions of Social Relations Scale)

We would like to know something about your relationships with other people. Please read each statement below and decide how well the statement describes you. For each statement, show your answer by indicating on the IBM sheet the number that best describes how you feel. The numbers represent the following answers.

not at all like me	not very much like me	somewhat like me	much like me	very much like me
1	2	3	4	5

9) When I'm with my friends I feel completely able to relax and be myself.

10) I share the same approach to life that many of my friends do.

11) People who know me trust me and respect me.

12) No matter what happens, I know that my family will always be there for me should I need them.

13) When I want to go out to do things I know that many of my friends would enjoy doing these things with me.

14) I have at least one friend that I could tell anything to.

15) Sometimes I'm not sure if I can completely rely on my family.

16) My family lets me know they think I'm a worthwhile person.

17) I feel very close to some of my friends.

18) People in my family have confidence in me.

19) People in my family provide me with help in finding solutions to my problems.

20) People who know me think I am good at what I do.

21) My friends would take the time to talk over my problems, should I ever want to.

22) I know my family will always stand by me.

23) Even when I am with my friends I feel alone.

PART 3 (Self-Efficacy Scale)

This questionnaire is a series of statements about your personal attitudes and traits. Each statement represents a commonly held belief. Read each statement and decide to what extent it describes you. There are no right or wrong answers. You will probably agree with some of the statements and disagree with others. Please indicate your own personal feelings about each statement below by marking the number that best describes your attitude or feeling. Please be very truthful and describe yourself as you really are, not as you would like to be.

disagree strongly	disagree moderately	undecided	agree moderately	agree strongly
1	2	3	4	5

24) I like to grow house plants.

25) When I make plans, I am certain I can make them work.

26) One of my problems is that I cannot get down to work when I should.

27) If I can't do a job the first time, I keep trying until I can.

28) Heredity plays the major role in determining one's personality.

29) It is difficult for me to make new friends.

30) When I set important goals for myself, I rarely achieve them.

31) I give up on things before completing them.

32) I like to cook.

33) If I see someone I would like to meet, I go to that person instead of waiting for him or her to come to me.

34) I avoid facing difficulties.

35) If something looks too complicated, I will not even bother to try it.

36) There is some good in everybody.

37) If I meet someone interesting who is very hard to make friends with, I'll soon stop trying to make friends with that person.

38) When I have something unpleasant to do, I stick to it until I finish it.

39) When I decide to do something, I go right to work on it.

40) I like science.

41) When trying to learn something new, I soon give up if I am not initially successful.

42) When I'm trying to become friends with someone who seems uninterested at first, I don't give up very easily.

43) When unexpected problems occur, I don't handle them well.

44) If I were an artist, I would like to draw children.

45) I avoid trying to learn new things when they look too difficult for me.

46) Failure just makes me try harder.

47) I do not handle myself well in social gatherings.

48) I very much like to ride horses.

49) I feel insecure about my ability to do things.

50) I am a self-reliant person.

51) I have acquired my friends through my personal abilities at making friends.

52) I give up easily.

53) I do not seem capable of dealing with most problems that come up in my life.

PART 4 (Locus of Control Scale)

This is a questionnaire to find out the way in which certain important events in our society affect different people. There are no right or wrong answers. Please indicate your own personal feelings about each statement below by marking the number that best describes your feeling or attitude.

disagree strongly	disagree moderately	undecided	agree moderately	agree strongly
1	2	3	4	5

54) Whether or not I get to be a leader depends mostly on my ability.

55) To a great extent my life is controlled by accidental happenings.

56) I feel like what happens in my life is mostly determined by powerful people.

57) Whether or not I get into a car accident depends mostly on how good a driver I am.

58) When I make plans, I am almost certain to make them work.

59) Often there is no chance of protecting my personal interest from bad luck happenings.

60) When I get what I want, it's usually because I'm lucky.

61) Although I might have good ability, I will not be given leadership responsibility without appealing to those in positions of power.

62) How many friends I have depends on how nice a person I am.

63) I have often found that what is going to happen will happen.

64) My life is chiefly controlled by powerful others.

65) Whether or not I get into a car accident is mostly a matter of luck.

66) People like myself have very little chance of protecting our personal interests when they conflict with those of strong pressure groups.

67) It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.

68) Getting what I want requires pleasing those people above me.

69) Whether or not I get to be a leader depends on whether I'm lucky enough to be in the right place at the right time.

70) If important people were to decide they didn't like me, I probably wouldn't make many friends.

71) I can pretty much determine what will happen in my life.

72) I am usually able to protect my personal interests.

73) Whether or not I get into a car accident depends mostly on the other driver.

74) When I get what I want, it's usually because I worked hard for it.

75) In order to have my plans work, I make sure that they fit in with the desires of people who have power over me.

76) My life is determined by my own actions.

77) It's chiefly a matter of fate whether or not I have a few friends or many friends.

PART 5 (Self-Esteem Scale and MMPI Lie Scale)

For the following questions, we would like you to indicate for each statement whether the statement is:

Like you = 1
Not like you = 2

78) Things don't usually bother me.

79) Once in a while I think of things too bad to talk about.

80) I find it very hard to talk in front of a group.

81) There are lots of things about myself I'd change if I could.

82) At times I feel like swearing.

83) I can make up my own mind without too much trouble.

84) I do not always tell the truth.

85) I'm a lot of fun to be with.

86) I get upset easily at home.

87) I do not read every editorial in the newspaper every day.

88) It takes me a long time to get used to anything new.

89) I'm popular with persons my own age.

90) I get angry sometimes.

91) My family usually considers my feelings.

92) Once in a while I put off until tomorrow what I ought to do today.

93) I give in very easily.

94) My family expects too much of me.

95) It's pretty tough to be me.

96) Sometimes when I am not feeling well I am cross.

97) Things are all mixed up in my life.

98) People usually follow my ideas.

99) My table manners are not quite as good at home as when I am out in company.

100) I have a low opinion of myself.

101) There are many times when I would like to leave home.

102) I often feel upset with my work.

103) If I could get into a movie without paying and be sure I was not seen I would probably do it.

104) I'm not as nice looking as most people.

105) If I have something to say, I usually say it.

106) I would rather win than lose in a game.

107) My family understands me.

108) I like to know some important people because it makes me feel important.

109) Most people are better liked than I am.

110) I do not like everyone I know.

111) I usually feel as if my family is pushing me.

112) I gossip a little at times.

113) I often get discouraged with what I am doing.

114) Sometimes at elections I vote for people about whom I know very little.

115) I often wish I were someone else.

116) Once in a while I laugh at a dirty joke.

117) I can't be depended on.

PART 6 (Coping Resources Scale)

In the following questionnaire, we would like you to think of a recent personal crisis or stressful life event that you have experienced. Please briefly indicate the nature of this event in the following space (e.g., failed an exam or argued with a friend).

____

Now we would like you to think about how you dealt with the above event. Using the IBM sheet try to answer the following questions as honestly as possible.

YES = 1
NO = 2

118) Tried to see the positive side.

119) Tried to step back from the situation and be more objective.

120) Prayed for guidance or strength.

121) Took things one step at a time.

122) Considered several alternatives for handling the problem.

123) Drew on my past experience; I was in a similar situation before.

124) Tried to find out more about the situation.

125) Talked with professional person (e.g., doctor, clergy, lawyer) about the situation.

126) Took some positive action.

127) Talked with my spouse or other relative about the problem.

128) Talked with a friend about the situation.

129) Exercised more.

130) Prepared for the worst.

131) Sometimes took it out on other people when I felt angry or depressed.

132) Tried to reduce the tension by eating more.

133) Tried to reduce the tension by smoking more.

134) Kept my feelings to myself.

135) Got busy with other things in order to keep my mind off the problem.

136) Didn't worry about it; figured everything would probably work out.

PART 7 (Brief Symptom Inventory)

Below are a list of problems and complaints that people sometimes have. Please read each one carefully. After you have done so, please choose a number that best describes how much that problem has bothered or distressed you during the past TWO MONTHS including today. Choose 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 Bit	Moderately	Quite a Bit	Extremely
1	2	3	4	5

HOW MUCH WERE YOU BOTHERED BY:

137) Nervousness or shakiness inside.

138) Faintness or dizziness.

139) The idea that someone else can control your thoughts.

140) Feeling others are to blame for most of your troubles.

141) Trouble remembering things.

142) Feeling easily annoyed or irritated.

143) Pains in heart or chest.

144) Feeling afraid in open spaces.

145) Thoughts of ending your life.

146) Feeling that most people cannot be trusted.

147) Feeling critical of others.

148) Suddenly scared for no reason.

149) Temper outbursts that you could not control.

150) Feeling lonely even when you are with people.

151) Feeling blocked in getting things done.

152) Feeling lonely.

153) Feeling blue.

154) Feeling no interest in things.

155) Feeling fearful.

156) Your feelings being easily hurt.

157) Feeling that people are unfriendly or dislike you.

158) Feeling inferior to others.

159) Nausea or upset stomach.

160) Feeling that you are being watched or talked about by others.

YOU SHOULD NOW BE FINISHED THE FIRST IBM SHEET. PLEASE CONTINUE ON THE SECOND IBM SHEET.

1) Feeling others do not understand you or are unsympathetic.

2) Having to check and double-check what you do.

3) Difficulty making decisions.

4) Feeling afraid to travel on buses, subways, or trains.

5) Trouble getting your breath.

6) Hot or cold spells.

7) Having to avoid certain things, places, or activities because they frighten you.

8) Your mind going blank.

9) Numbness or tingling in parts of your body.

10) The idea that you should be punished for your sins.

11) Feeling hopeless about the future.

12) Trouble concentrating.

13) Feeling weak in parts of your body.

14) Feeling tense or keyed up.

15) Feeling uneasy when people are watching or talking about you.

16) Having urges to beat, injure, or harm someone.

17) Having urges to break or smash things.

18) Feeling very self-conscious with others.

19) Feeling uneasy in crowds, such as shopping or at a movie.

20) Never feeling close to another person.

21) Spells of terror or panic.

22) Getting into frequent arguments.

23) Feeling nervous when you are left alone.

24) Others not giving you proper credit for your achievements.

25) Feeling so restless you couldn't sit still.

26) Feelings of worthlessness.

27) Feeling that people will take advantage of you if you let them.

28) Feeling uncomfortable about eating or drinking in public.

29) The idea that something is wrong with your mind.

PART 8 (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 indicate "yes" or "no" for the following questions with regard to any sexual experiences you had when you were **AGE 14 OR YOUNGER with someone at least 5 YEARS OLDER** than yourself.

YES = 1 NO = 2

30) An invitation or request to do something sexual.
31) Kissing and hugging in a sexual way.
32) Another person showing his/her sex organs to you.
33) You showing your sex organs to another person.
34) Another person fondling you in a sexual way.
35) You fondling another person in a sexual way.
36) Another person touching your sex organs.
37) You touching another person's sex organs.
38) Attempted intercourse.
39) Intercourse.

If you answered no to questions 30 to 39, then go on to **PART 9**. If you answered yes to any of questions 30 to 39, 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	______	uncle or aunt	______
an acquaintance	______	brother or sister	______
a friend of yours	______	cousin	______
a friend of your parents	______	a neighbour	______
your father or mother	______	your teacher	______
grandfather/grandmother	______	your babysitter	______
stepfather/stepmother	______	other(specify)	________
boyfriend/girlfriend	______		

NOW CONTINUE TO ANSWER ON THE IBM SHEET.

40) Was the other person: male = 1 female = 2

41) 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

42) How many times would you estimate that this sexual behaviour occurred?

only once or twice = 1
from 3-10 times = 2
from 11-25 times = 3
from 26-50 times = 4
more than 50 times = 5

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

YES = 1 NO = 2

43) threatened you
44) forced you
45) hurt you physically
46) convinced you to participate

47) Looking back at it now, would you say this experience was:

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

48) How confident do you feel about your memory of this experience?

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

49) Do you feel that you were sexually abused as a child?

yes = 1 no = 2

PART 9 (Adolescent Sexual Abuse Scale)

Now we would like you to answer the same questions for any sexual experiences you had as an adolescent. Please indicate if you had any of the following experiences when you were **between AGE 15 AND 18 with someone at least 10 YEARS OLDER than yourself, or with someone of any age if the experience was one you did not consent to.**

YES = 1   NO = 2

50) An invitation or request to do something sexual.
51) Kissing and hugging in a sexual way.
52) Another person showing his/her sex organs to you.
53) You showing your sex organs to another person.
54) Another person fondling you in a sexual way.
55) You fondling another person in a sexual way.
56) Another person touching your sex organs.
57) You touching another person's sex organs.
58) Attempted intercourse.
59) Intercourse.

If you answered <u>no</u> to questions 50 to 59, then go on to **PART 10.** If you answered yes to any of questions 50 to 59, 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	______	uncle or aunt	______
an acquaintance	______	brother or sister	______
a friend of yours	______	cousin	______
a friend of your parents	______	a neighbour	______
your father or mother	______	your teacher	______
grandfather/grandmother	______	your babysitter	______
stepfather/stepmother	______	other(specify)	________
boyfriend/girlfriend	______		

NOW CONTINUE TO ANSWER ON THE IBM SHEET.

60) Was the other person: male = 1   female = 2

61) 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

62) How many times would you estimate that this sexual behaviour occurred?

only once or twice = 1
from 3-10 times = 2
from 11-25 times = 3
from 26-50 times = 4
more than 50 times = 5

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

YES = 1 NO = 2

63) threatened you
64) forced you
65) hurt you physically
66) convinced you to participate

67) Looking back at it now, would you say this experience was:

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

68) How confident do you feel about your memory of this experience?

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

69) Do you feel that you were sexually abused as an adolescent?

yes = 1 no = 2

PART 10 (Child Physical Maltreatment 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 18**, 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:

70) Hit or slap you really hard.
71) Beat or kick you.
72) Push, throw, or knock you down.
73) Hit you with an object.
74) Pull your hair.
75) Burn or scald you.
76) Scratch or dig fingernails into you.
77) 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

78) mother
79) father
80) stepmother
81) stepfather
82) 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

83) bruises or scratches
84) cuts
85) injuries requiring medical treatment
86) other injury

Did any of the following people ever hit you or beat you before you were 18?

YES = 1 NO = 2

87) brother or sister
88) other child or adolescent
89) other adult non-family member

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

yes = 1 no = 2

If you answered "yes" for any of the previous questions on sexual experiences or physical treatment by your parents, (i.e., **PARTS 8, 9, or 10**), we would like to explore how you feel about these experiences now. If you had more than one such experience, please choose the experience that seems most significant to you now and answer the following questions with this experience in mind.

91) Please indicate which experience you are answering for:
child sexual experience = 1
adolescent sexual experience = 2
physical treatment by parents = 3

IF YOU HAD NO SUCH EXPERIENCES, GO ON TO PAGE 24 AND BEGIN AGAIN WITH PART 14.

PART 11 (Impact of Event Scale)

Below is a list of comments made by people about stressful life events and the context surrounding them. Read each item and decide how frequently each item was true for you during the past 7 days, with regard to any of the above indicated childhood experiences.

not at all	rarely	sometimes	often
1	2	3	4

92) I thought about it when I didn't mean to.

93) I avoided letting myself get upset when I thought about it or was reminded of it.

94) I tried to remove it from memory.

95) I had trouble falling asleep or staying asleep, because of pictures or thoughts that come into my mind.

96) I had waves of strong feelings about it.

97) I had dreams about it.

98) I stayed away from reminders of it.

99) I felt as if it hadn't happened or wasn't real.

100) I tried not to talk about it.

101) Pictures about it popped into my mind.

102) Other things kept making me think about it.

103) I was aware that I still had a lot of feelings about it, but I didn't deal with them.

104) I tried not to think about it.

105) Any reminder brought back feelings about it.

106) My feelings about it were kind of numb.

PART 12 ("How I deal with things now" Scale)

Please continue to answer the following items for the same experience as above. Using the following scale indicate HOW YOU DEAL WITH THINGS NOW.

never	rarely	occasionally	often	usually
1	2	3	4	5

107) Trying to rethink the situation and to see it from a different perspective.

108) Taking concrete actions to make positive changes in your life.

109) Changing your habitual ways of doing things, for example, things in your daily routine.

110) Sleeping a lot and trying not to think about what happened.

111) Finding out more information about other people's similar experiences.

112) Going over the situation again and again, trying to figure out why it happened and exactly what happened at each point.

113) Avoiding people, places, or situations that remind you of the experience.

114) Giving yourself permission to feel your feelings and considering any feelings to be "okay".

115) Crying, screaming, or giggling a lot when you are by yourself.

116) Directly showing your feelings when you are with others-- actually crying, screaming, expressing confusion, and so on.

117) Talking to family and friends about your feelings.

118) Doing things for yourself just because they make you feel good.

119) Trying to forget that the experience ever happened.

120) Trying to ignore all thoughts and feelings about the experience.

121) Blaming yourself for what happened, going over all the things you did wrong, holding yourself responsible for the experience, or chewing yourself out for having been "so dumb".

122) Snapping at people for no apparent reason, generally feeling irritable, or feeling like you are about to explode.

123) Trying intellectually to understand what happened to you and why you have felt the ways you have.

124) Drinking a lot of alcohol or taking other drugs more than usual.

125) Getting yourself into dangerous or risky situations more than you usually would.

126) Examining your life activities, relationships, and priorities, and getting rid of things that aren't really important to you.

127) Telling yourself and/or others that you are determined not to let the experience ruin your life or make you a victim forever, and that you are not going to let it defeat you emotionally.

128) Eating or smoking cigarettes a lot more than usual.

129) Going over all the things you did that were "good" and helped you get through the experience.

130) Thinking about killing yourself.

131) Getting more involved in your religion, changing religions, or becoming more religious.

132) Talking to a therapist or counsellor.

133) Taking prescription drugs (such as Valium) to help yourself relax.

134) Keeping busy and trying to distract yourself from being bothered by the experience.

135) Staying inside your house or apartment, and going out as little as possible.

PART 13 (Recovery from Abuse Scale)

Please answer the following items using this scale:

not at all like me	not very much like me	somewhat like me	much like me	very much like me
1	2	3	4	5

136) I feel that I have been able to put my childhood behind me and go on with my life.

137) I find myself thinking about my childhood all the time.

138) I feel that I have become a stronger person because of my life experiences.

139) I find that I get really upset or angry when ever I think about my childhood.

140) I blame myself for what happened to me as a child.

141) I keep finding myself in situations which make me feel the way I did as a child.

142) Whenever the topic of child abuse comes up I feel a strong need to tell about my own experiences.

143) I tend to live for today and try to forget about the past.

144) I read everything I can get my hands on that is about child abuse.

145) I really can't remember a lot about my childhood.

146) No one close to me knows what happened to me as a child.

147) I feel that I am able to help others who had experiences like mine as children.

148) No one knows the "real" me.

149) I have never told anyone about my childhood experiences.

150) Most of the time I just don't want to think about my childhood.

151) I have spoken to a therapist or counsellor about my childhood experiences.

152) I know that if I had to I could get by on my own.

153) I really prefer to have someone else to rely on when I have an important decision to make.

154) I managed to get to where I am today all on my own.

155) I don't feel comfortable letting others see how I really feel.

156) I wish I could go back and live my childhood over again, only differently.

157) I feel that I have always been very different from others because of my childhood.

158) Not very many people really understand me.

159) I had a lot of friends when I was a child.

160) I feel very, very sad when I see children who appear to be unhappy.

YOU SHOULD NOW BE FINISHED THE SECOND IBM SHEET.

PLEASE CONTINUE ON IBM SHEET 3.

IF YOU SKIPPED THE PREVIOUS SECTIONS, PLEASE BEGIN WITH

PART 14 ON THE NEXT PAGE.

PART 14 ("How I see myself now" Scale)

Please use the following scale to indicate HOW YOU SEE YOURSELF NOW.

never	rarely	occasionally	often	usually
1	2	3	4	5

1) self-confident
2) guilty
3) accepting of others
4) fearful
5) assertive
6) emotional relations are hard
7) happy
8) trusting of women
9) angry
10) needy
11) able to ask for help or support
12) clear about my values
13) feel good about getting help or support
14) timid
15) lonely
16) trusting of friends
17) independent
18) in good shape
19) pushed around
20) isolated
21) competent
22) deserving praise
23) effective
24) trusting of strangers
25) strong
26) self-respecting
27) worthy of getting help or support
28) self-sufficient
29) vulnerable
30) doing well
31) anxious
32) trusting of men
33) clear about my needs
34) able to take care of myself
35) autonomous
36) depressed
37) nervous
38) in control of my life
39) sexual relations are hard
40) trusting of myself
41) deserving of blame

THANK YOU FOR YOUR PARTICIPATION

Appendix B: Debriefing Sheet

COPING STUDY

As indicated at the beginning of this study, some of the questions you have been asked to answer have been of a sensitive nature. I would like to reassure you that all of your responses are strictly confidential, cannot be traced to you, and will be analyzed in terms of group rather than individual data. The study was designed to examine the many ways in which students deal with everyday life situations as well as with childhood experiences of physical or sexual maltreatment. The purpose of the study was to compare the effectiveness of various styles of coping and the use of social resources in dealing with current life situations and with past experiences of child abuse.

Your contribution to this research has been much appreciated. As this is a very important area of research, we would appreciate your willingness not to discuss this study with other students who have not yet completed the survey. If, as a result of your participation, you have questions about the study or its subject matter the primary investigator can be reached to answer your questions, by leaving a message at 474-9222. If you feel a need to anonymously discuss your feelings about child abuse or any other concerns you have become aware of during this study, telephone counselling is available through Klinic, at 786-8686.

Marsha Runtz, M.A.
John Schallow, Ph.D.
Department of Psychology
University of Manitoba
474-9222 (Psychological
Service Centre)

Appendix C: Correlation Matrices

Table C-1

Correlation Matrix of Variables: "Detached" to "Self-destructive" with "Upset" to "Family Support"

	1	2	3	4	5	6	7	8
1) DET	--							
2) UPS	.49*	--						
3) SUR	.22*	.07	--					
4) EXP	.14	.24*	.38*	--				
5) COG	.32*	.46*	.18*	.65*	--			
6) NER	.31*	.54*	.03	.56*	.72*	--		
7) AVO	.46*	.41*	.15	.46*	.68*	.64*	--	
8) SEL	.37*	.39*	-.00	.12	.48*	.64*	.53*	--
9) ACT	.02	.00	.01	-.08	.00	.03	.06	-.12
10) ORE	.24*	.12	-.09	-.15*	-.02	.06	.03	-.14*
11) ANE	-.12	-.18*	-.03	-.17*	-.19*	-.28*	-.24*	.23*
12) GSI	.36*	.31*	.00	.03	.18*	.35*	.32*	.40*
13) INT	-.09	-.15*	.18*	.19*	-.01	-.10	-.03	-.14*
14) POW	.27*	.16*	-.06	.00	.13	.16*	.22*	.23*
15) CHA	.26*	.17*	-.06	.00	.13	.22*	.24*	.26*
16) INR	.31*	.48*	.04	.30*	.55*	.53*	.54*	.40*
17) AVD	.45*	.44*	.13	.32*	.52*	.46*	.72*	.36*
18) EFG	-.18*	-.10	.19*	.15*	.03	-.12	-.10	-.20*
19) EFS	-.22*	-.11	.16*	.12	-.09	-.12	-.13	-.18*
20) FAM	-.29*	-.22*	.09	.02	-.15	-.19	-.18*	-.17*

(table continues)

Table C-1 (continued)

Correlation Matrix of Variables: "Detached" to "Self-destructive" with "Friend Support" to "Lie Scale"

	1	2	3	4	5	6	7	8
21) FRN	-.33*	-.21*	.15	.18*	-.08	-.15	-.13	-.22*
22) EST	-.44*	-.35*	.12	.08	-.15	-.28*	-.30*	-.36*
23) ANG	.33*	.39*	-.08	-.01	.28*	.41*	.37*	.49*
24) IND	-.26*	-.27*	.28*	.20*	-.10	-.25*	-.26*	-.39*
25) MEN	-.27*	-.28*	.30*	.15	-.14	-.30*	-.28*	-.43*
26) TRU	-.26*	-.26*	.27*	.18*	-.10	-.19*	-.23*	-.27*
27) HEL	-.33*	-.25*	.23*	.21*	-.08	-.17*	-.23*	-.41*
28) GUI	.25*	.29*	-.08	-.01	.23*	.32*	.39*	.44*
29) LIE	.02	.17*	-.03	.05	.08	.03	.08	-.09

Note. DET=detached, UPS=upset over abuse, SUR=survivor, EXP=expressive, COG=cognitive, NER=nervous, AVO=avoidance, SEL=self-destructive, ACT=active/object., ORE=other-reliance, ANE=angry/externalize, GSI=global symptom index, INT=internal locus, POW=power locus, CHA=chance locus, INR=intrusion, AVD=avoidance, EFG=general self-efficacy, EFS=social self-efficacy, FAM=family support, FRN=friend support, EST=self-esteem, ANG=anger, IND=independence, MEN=mental health, TRU=trust, HEL=help, GUI=guilt, LIE=lie scale.

* $p < .001$.

Table C-2
Correlation Matrix of Variables: "Active/Objective" to "Chance" with "Rely on others" to "Lie Scale"

	9	10	11	12	13	14	15
10) ORE	.09	--					
11) WOR	.07	.12	--				
12) GSI	.14	.15*	-.31*	--			
13) INT	-.10	-.04	.15*	-.22*	--		
14) POW	.07	.11	-.19*	.35*	-.26*	--	
15) CHA	.15*	.13*	-.20*	.40*	-.34*	.59*	--
16) INR	.00	.07	-.14	.27*	-.11	.08	.18*
17) AVD	.04	.05	-.22*	.28*	-.03	.13	.21*
18) EFG	-.28*	-.16*	.18*	-.39*	.44*	-.35*	-.43*
19) EFS	-.20*	-.14*	.01	-.23*	.23*	-.26*	-.22*
20) FAM	-.13*	-.18*	.01	-.27*	.20*	-.17*	-.18*
21) FRN	-.12	-.25*	.05	-.28*	.28*	-.25*	-.24*
22) EST	-.22*	-.21*	.28*	-.61*	.36*	-.41*	-.45*
23) ANG	-.14*	-.12*	.29*	.62*	-.30*	.35*	.40*
24) IND	.19*	.17*	-.18*	-.44*	.39*	-.32*	-.39*
25) MEN	.19*	.15*	-.23*	-.53*	.41*	-.34*	-.39*
26) TRU	.17*	.21*	-.13*	-.39*	.33*	-.30*	-.36*
27) HEL	.16*	.23*	-.09	-.40*	.34*	-.26*	-.34*
28) GUI	-.14*	-.09	.25*	.52*	-.28*	.30*	.35*
29) LIE	-.14*	.03	.08	-.19*	.03	-.18*	-.18*

Note. * $p < .001$.

Table C-3

Correlation Matrix of Variables: "Intrude" to "Self-esteem" with "Avoid" to " Lie Scale"

	16	17	18	19	20	21	22
17) AVD	.74*	--					
18) EFG	-.02	-.05	--				
19) EFS	-.06	-.05	.46*				
20) FAM	-.17*	-.13	.31*	--			
21) FRN	-.06	-.07	.40*	.43*	--		
22) EST	-.25*	-.30*	.62*	.47*	.46*	--	
23) ANG	.28*	.27*	-.43*	-.32*	-.34*	-.43*	-.61*
24) IND	-.17*	-.20*	.57*	.41*	.30*	.45*	.64*
25) MEN	-.18*	-.19*	.57*	.37*	.37*	.48*	.66*
26) TRU	-.16*	-.19*	.50*	.45*	.26*	.44*	.58*
27) HEL	-.14	-.15	.45*	.32*	.37*	.48*	.53*
28) GUI	.28*	.30*	-.40*	-.22*	-.25*	-.30*	-.53*
29) LIE	.03	.10	.16*	.07	-.01	-.03	.15*

Note. * $p < .001$.

Table C-4

Correlation Matrix of Variables: "Anger" to "Guilt" with "Independence" to "Lie Scale"

	23	24	25	26	27	28
24) IND	-.61*	--				
25) MEN	-.75*	.88*	--			
26) TRU	-.37*	.80*	.66*	--		
27) HEL	-.51*	.68*	.76*	.71*	--	
28) GUI	.79*	-.58*	-.66*	-.48*	-.52*	--
29) LIE	-.17*	.04	.12	.07	.05	-.17*

Note. * $p<.001$.

Appendix D: Factor Analyses

Table D-1

Factor Analysis of the Coping Resources Scale

Item	Mean(SD)	Factors[a]		
		1	2	3
1) Saw the positive side	1.29 (.45)	.64	-.29	-.01
2) Was objective	1.28 (.45)	.65	-.31	-.13
3) Prayed	1.52 (.50)	.18	.40	.15
4) One step at a time	1.19 (.39)	.44	-.06	.02
5) Considered alternatives	1.21 (.40)	.57	.20	-.02
6) Drew on past experience	1.58 (.49)	.18	.11	-.31
7) Found out more	1.27 (.44)	.47	.26	.26
8) Talked to a professional	1.80 (.40)	.14	.35	.20
9) Took action	1.26 (.44)	.51	.11	.12
10) Spouse	1.41 (.49)	.08	.10	.74
11) Friend	1.17 (.37)	.09	.14	.62
12) Exercised	1.63 (.48)	.30	.21	-.08
13) Prepared for the worst	1.38 (.48)	.17	.44	-.11
14) Took it out on others	1.44 (.50)	-.12	.63	.04
15) Ate more	1.74 (.44)	-.01	.45	-.06

Table D-1 (continued)

Factor Analysis of the Coping Resources Scale

Item	Mean(SD)	Factors[a]		
		1	2	3
16) Smoked more	1.85 (.36)	-.05	.26	-.08
17) Kept to self	1.47 (.50)	-.11	.13	-.71
18) Kept busy	1.39 (.49)	.20	-.01	.05
19) Didn't worry	1.35 (.48)	.05	-.54	-.11
Eigenvalue		2.3	2.0	1.5
Percent of variance		12.1%	10.2%	7.7%
Cumulative % of variance		12.1%	22.2%	30.0%

Note. N = 653.

[a]Factor 1 = "Active/objective" subscale; Factor 2 = "Angry/Worried" subscale; Factor 3 = "Rely on others" subscale.

Table D-2

Factor Analysis of the "How I see myself now" Scale

Item	Factors[a]					
	1	2	3	4	5	6
1) self-confident	.59	-.30	.12	.33	.01	.04
2) guilty	-.15	.49	-.07	-.06	.51	-.23
3) accept others	.30	-.02	.52	.20	-.03	-.02
4) fearful	-.10	.66	-.14	.12	.10	-.11
5) assertive	.56	-.22	-.10	.34	.25	.00
6) emotional relations are hard	-.03	.34	-.31	-.24	.00	.47
7) happy	.39	-.31	.51	.26	-.11	-.05
8) trust women	.20	-.13	.64	.08	-.01	-.15
9) angry	-.02	.58	-.33	-.04	.17	-.18
10) needy	-.17	.51	-.04	.08	.16	-.14
11) asks for help	.17	-.10	.27	.70	.01	-.12
12) values clear	.41	-.10	.36	.31	-.15	-.16
13) help is good	.08	-.02	.33	.71	-.14	-.09
14) timid	-.22	.55	.15	-.23	-.12	.14
15) lonely	-.12	.63	-.19	-.14	.04	.22
16) trust friends	.25	-.11	.61	.20	.02	-.10
17) independent	.70	-.16	.06	-.06	.06	-.15
18) in good shape	.52	-.17	.17	.04	-.16	-.03

Table D-2 (continued)

Factor Analysis of the "How I see myself now" Scale

Item	Factors[a]					
	1	2	3	4	5	6
19) pushed around	-.29	.52	-.05	-.08	.12	.10
20) isolated	-.20	.55	-.24	-.20	.07	.21
21) competent	.58	-.13	.27	.24	.05	.16
22) deserve praise	.44	-.05	.08	.41	.03	.29
23) effective	.69	-.16	.17	.26	.04	.18
24) trust strangers	.16	-.05	.43	.01	.40	.35
25) strong	.63	-.24	.14	.16	-.03	.15
26) self-respecting	.60	-.25	.35	.24	-.20	.01
27) worthy of help	.36	.07	.28	.56	-.26	.01
28) self-sufficient	.76	-.10	.11	.09	.10	-.01
29) vulnerable	-.05	.59	-.01	-.08	.09	.15
30) doing well	.61	-.14	.28	.20	.15	.06
31) anxious	.03	.55	.07	.00	-.11	.16
32) trust men	.19	-.17	.65	.17	.02	.08
33) needs clear	.50	-.03	.47	.14	-.12	-.17
34) self-care	.70	-.01	.26	-.12	.00	-.27
35) autonomous	.47	.17	.10	-.08	.03	-.08
36) depressed	-.13	.68	-.28	-.05	.09	.02
37) nervous	-.06	.71	-.07	.00	.04	.02
38) in control	.56	-.25	.30	.21	-.18	-.09

Table D-2 (continued)

Factor Analysis of the "How I see myself now" Scale

Item	Factors[a]					
	1	2	3	4	5	6
39) sexual relations are hard	-.09	.34	-.12	-.05	.04	.53
40) trust self	.48	-.10	.34	.13	-.45	-.03
41) deserve blame	-.09	.26	.03	-.12	.63	.08
Eigenvalue:	11.8	3.5	1.9	1.3	1.2	1.2
% of variance:	28.8%	8.6%	4.6%	3.1%	2.9%	2.9%
cum. % variance:	28.8%	37.4%	42.1%	45.2%	48.1%	51.0%

Note. *N* = 653.

[a]Factor 1 = "Independent"; Factor 2 = "Angry"; Factor 3 = "Trust"; Factor 4 = "Help"; Factor 5 = "Guilt"; Factor 6 = "Relationship problems".

Table D-3

Factor Analysis of the "How I deal with things" Scale

Item	Factors[a]					
	1	2	3	4	5	6
1) Rethink it	.40	-.04	.21	.64	.13	.07
2) Make changes	.64	.10	.07	.40	.22	.04
3) Change habits	.33	.05	-.06	.65	.22	.17
4) Sleep a lot	-.03	.36	.14	.65	.08	.26
5) Find out more	.17	.08	.23	.61	.24	.03
6) Figure it out	.08	.28	.30	.57	.18	.12
7) Avoid reminders	-.01	.65	.21	.32	.17	.11
8) Okay to feel	.66	.04	.03	.22	.22	.06
9) Crying alone	.06	.23	.21	.23	.47	.22
10) Cry with others	.18	.04	.08	.11	.81	.05
11) Talk to others	.41	-.06	.01	.16	.64	.04
12) Doing for self	.72	.12	-.05	.08	.18	-.09
13) Try to forget	.13	.87	.06	.04	.06	.12
14) Ignore feelings	.15	.88	.12	.00	.08	.06
15) Blame self	.07	.34	.53	.27	.06	.06
16) Irritability	.05	.21	.60	.20	.41	.00
17) Try understand	.53	.11	.37	.29	.25	.08
18) Alcohol/drugs	.01	.09	.66	.16	.06	.33
19) Take risks	.10	.12	.73	.12	.17	.19
20) Examine life	.60	.21	.14	.11	.39	.05

Table D-3 (continued)

Factor Analysis of the "How I deal with things" Scale

Item	Factors[a]					
	1	2	3	4	5	6
21) Not defeated	.61	.44	.23	.07	.08	.01
22) Eat/smoke more	.19	.04	.69	.03	-.07	.25
23) Review good	.56	.30	.22	.19	.12	.20
24) Think suicide	-.20	.23	.42	.20	.30	.38
25) Seek religion	.11	.19	-.09	.07	.42	.49
26) See a therapist	.01	.03	.15	.09	.32	.56
27) Rx. drugs	.03	-.01	.21	-.07	-.07	.80
28) Keep busy	.27	.55	.12	.24	.06	.25
29) Stay at home	-.02	.20	.17	.26	-.04	.68
Eigenvalue:	8.9	2.8	1.9	1.3	1.2	1.1
% of variance:	30.7%	9.7%	6.5%	4.5%	4.1%	3.7%
% cum. variance:	30.7%	40.3%	46.9%	51.4%	55.5%	59.3%

Note. *N* = 279.

[a]Subscales: Factor 1 = "Expressive"; Factor 2 = "Avoidance"; Factor 3 = "Self-destructive"; Factor 4 = "Cognitive"; Factor 5 = "Nervous"; Factor 6 = "Depressed".

Table D-4

Factor Analysis of the Recovery from Abuse Scale

Item	Mean (SD)	Factors[a]		
		1	2	3
1) Go on with life	3.45(1.26)	.14	-.13	.54
2) Thinking about it	2.44(1.07)	.04	.32	.12
3) Stronger	3.66(1.22)	-.05	-.05	.70
4) Upset	1.92(1.09)	.35	.65	-.14
5) Blame self	1.76(1.02)	.24	.47	-.04
6) Feel as a child	1.81(1.04)	.36	.60	-.07
7) Need to tell	1.46(0.84)	.12	.61	-.19
8) Live for today	2.85(1.34)	.31	.07	.48
9) Read about it	1.41(0.78)	-.02	.69	.00
10) Can't recall	2.16(1.08)	.35	.14	.03
11) No one knows	2.12(1.34)	.67	.02	.04
12) Help others	1.97(1.15)	.07	.64	.16
13) No one knows me	2.40(1.41)	.76	.18	.06
14) Never told	1.96(1.27)	.78	-.03	-.03
15) Don't think	1.95(1.12)	.63	.31	.08
16) Therapist	1.43(0.98)	-.03	.60	-.05
17) Could get by	3.70(1.30)	.18	.03	.71
18) Rely on others	2.61(1.24)	.12	.26	.13

Table D-4 (continued)

Factor Analysis of the Recovery from Abuse Scale

Item	Mean (SD)	Factors[a]		
		1	2	3
19) All on my own	2.85(1.16)	.26	.15	.49
20) Hide feelings	2.61(1.26)	.53	.02	.24
21) Wish to go back	2.27(1.31)	.45	.36	.08
22) Feel different	2.17(1.27)	.45	.53	.04
23) Not understood	2.47(1.28)	.70	.21	.17
24) A lot of friends	3.49(1.34)	-.32	-.18	.53
25) Feel sad	3.64(1.25)	-.07	.37	.59
Eigenvalue:		5.6	2.6	2.0
% of variance:		22.4%	10.6%	7.9%
% cumulative variance:		22.4%	33.0%	40.9%

Note. *N* = 274.

[a]Factor 1 = "Detached" subscale; Factor 2 ="Upset/emotional" subscale; Factor 3 = "Survivor" subscale.