PSYCHOLOGICAL, PHYSICAL, AND SEXUAL CHILDHOOD MALTREATMENT EXPERIENCES: CREATION OF RETROSPECTIVE-REPORT QUESTIONNAIRES FOR ADULTS AND EXAMINATION OF POTENTIAL LONG-TERM PSYCHOLOGICAL CONSEQUENCES OF MALTREATMENT

by

Dano Demaré

A Thesis presented to the University of Manitoba in partial fulfilment of the requirements for the degree of Master of Arts in the Department of Psychology

Winnipeg, Manitoba, Canada

ISBN 0-315-86033-2

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BY

DANO DEMARÉ

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

MASTER OF ARTS

ABSTRACT

The present study investigated forms of maltreatment that university students reported having had experienced during childhood or adolescence, as perpetrated by one or more of their parental figures. Participants were 1,179 female (55%) and male (45%) Introductory Psychology students who ranged in age from 17 to 49 years. Childhood histories of three major forms of maltreatment (i.e., psychological, physical, and sexual) were assessed and the associations of such histories with three measures of subjects' current levels of psychological functioning were examined. Because of the lack of an adequate instrument for assessing various subforms of psychological maltreatment, the present investigator created such an instrument and its refinement served as a major focus of this study. Psychological maltreatment was conceptualized broadly as consisting of various types of parental behaviors that are thought by professionals to be psychologically damaging to children. The 12 subforms of psychological maltreatment identified, and for which measures were created, are *Rejecting*, *Degrading*, *Isolating*, *Corrupting*, *Denying Emotional Responsiveness*, *Exploiting (Nonsexual)*, *Verbal Terrorism*, *Physical Terrorism*, *Witness to Family Violence*, *Unreliable and Inconsistent Care*, *Controlling or Stifling Independence*, and *Physical Neglect*. Questionnaires for assessing physical abuse and sexual abuse were also created, but these

essentially represent modified and expanded versions of existing questionnaires. Results indicate that all scales and subscales created for this study have high internal consistency reliabilities. Although principal components analyses successfully discriminated psychological and physical forms of maltreatment from sexual forms, and sexual abuse by a non-parent from all other forms of maltreatment, these analyses failed to discriminate psychological maltreatment from physical abuse. In addition, perhaps due to the specificity of the university student sample used, the analyses failed to provide evidence that the 12 subforms of psychological maltreatment assessed are distinct from one another or that the three subforms of sexual abuse assessed are distinct from each other. Whereas 66% of students reported having experienced at least one incident of childhood physical abuse and 13% reported at least one experience of contact sexual abuse at the hand of a parent figure, almost all students (99%) experienced some degree of psychological maltreatment. Nearly two-thirds of students, furthermore, experienced some form of psychological maltreatment *often* or *very often* during childhood. In addition, as with physical abuse and subforms of sexual abuse, each subform of psychological maltreatment assessed was found to be related significantly to higher levels of subjects' self-reports of current psychological symptom status, as measured by the Brief Symptom Inventory, trauma symptomatology, as measured by the

Trauma Symptom Checklist-40, and lower levels of self-esteem, as measured by the Adult Form of the Coopersmith Self-Esteem Inventory. The evidence that psychological maltreatment was more prevalent than and tended to co-exist with physical and sexual forms of abuse, in combination with findings that it was more strongly associated with greater symptomatology and lower self-esteem than were physical or sexual abuse, suggests support for the hypothesis that psychological maltreatment is the "core component" of all forms of childhood maltreatment and is the form of maltreatment most responsible for long-term negative sequelae in the victims of maltreatment.

ACKNOWLEDGEMENTS

This was a large project that involved the generous contributions of several talented individuals. First, I could not have wished for a more adept and supportive committee. Dr. John Schallow, as my advisor, served brilliantly as guide and expert consultant throughout the many phases of the project. John carefully explored options with me and offered insightful suggestions when important decisions needed to be made, but ultimately offered me the respect and freedom to determine my own directions. The wisdom he shared and his encouragement of my independent efforts have made me a more capable researcher.

Dr. Marianne Johnson, as my committee member within the Department of Psychology, inspired my efforts with her genuine interest in and support of the project. In addition, her meticulous review of the manuscript and insightful comments at various stages of the project contributed to the overall integrity of the study.

Dr. Robert McIlwraith (Department of Psychiatry), as external committee member, offered me a valuable combination of constructive criticism, friendly advice, and emotional support. In many instances Bob helped me to think about my project in a broader research and clinical context.

I wish to acknowledge, as well, the substantial contribution of Dr. John Briere, who in important respects served as "unofficial committee

member" for this project. As my colleague and sometimes mentor, but most importantly as my friend, John has consistently supported my research efforts over the years and has shared with me his extensive wisdom and insight in the area of family violence research. John generously made himself available for consultation and expert advice at crucial stages of the project, when I most needed his support.

The four individuals mentioned above also served as expert reviewers for the maltreatment questionnaires I created for this study. Six equally distinguished clinicians, many of whom I also have the good fortune to call my friends, also reviewed these questionnaires. My appreciation and admiration, therefore, are also due Drs. Rayleen De Luca, Jule Henderson, Cynthia Jordan, Cheryl Lanktree, Jaye Miles, and Marsha Runtz.

I wish to thank, as well, Pamela Chenhall, Dorothy Chitty, Kathleen de Leon-Demaré, Edna Haynes, Mel Haynes, Wiebke Peschken, Donna Reid, and Mary-Anne Wilbon, all of whom assisted with the many tasks required for collection of data. The friendly support of Computer Services staff, Diane Boulay, Diane Cox, Dan Hiebert, and Debbie Norman was also very much appreciated.

In a very real sense, my interest in this research area was inspired by my early clinical experience at Klinic Community Health Centre. I wish to acknowledge the work of the caring staff and volunteers at

Klinic, as well as my former clients who shared their very personal stories with me.

I also wish to acknowledge the considerable contributions of my family members, all of whom have supported my academic achievements in many ways tangible and intangible. In particular, my wife Kathleen both provided emotional support and assisted me directly with important phases of the project. Similarly, family members assisted in precoding the thousands of computer data forms required for analyses.

Finally, with deep respect and sadness, I wish to acknowledge the contribution of the late Dr. Judith Defren to my academic achievements. As my first university professor and later as my friend, Judith inspired in me a love and enthusiasm for academic pursuits, which have endured for many years.

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INTRODUCTION

The present study is concerned with assessment of maltreatment[1] that university students might have experienced during childhood or adolescence and with examining relationships among these experiences and measures of students' current levels of psychological functioning. Although physical abuse and sexual abuse experiences were assessed, the study is concerned primarily with psychological maltreatment. This is because, unlike physical abuse and sexual abuse which have been subjects of considerable research in recent years, psychological maltreatment has received very little empirical attention.

A great deal of attention is devoted in the present analysis to exploring the major issues involved in the study of psychological maltreatment and to detailing the steps I followed in the creation of a questionnaire that was used to assess histories of psychological

[1] It is common in the child maltreatment literature for the term "abuse" to be used in referring to negative acts of *commission* whereas the term "maltreatment" may refer to negative acts of either *commission* or *omission*. Although this convention will be followed generally in the present manuscript, the terms will also be used interchangeably at times.

maltreatment among university students. Although questionnaires to assess histories of physical abuse and sexual abuse were also created for this study, these latter questionnaires represent modified and expanded versions of existing questionnaires.

Rationale for Studying Childhood Maltreatment

Despite the fact that developments related to the active protection of children in North America occurred as early as the turn of the century (Garrison, 1987), child maltreatment has a rather short history as an area of serious empirical inquiry. Early attention directed toward child maltreatment in the 1960s focused on physical abuse and neglect (e.g., Gelles, 1975; Gil, 1970; Helfer & Kempe, 1968; Kempe, Silverman, Steele, Droegemueller & Silver, 1962), whereas research in this area later broadened to include the incidence and effects of child sexual abuse (e.g., Finkelhor, 1979; Herman, 1981). As later sections will detail, psychological forms of child maltreatment have been targeted for research in only very recent years and investigation into their consequences is in its infancy.

National statistics available on the incidence of physical and sexual child abuse make it abundantly clear that the problem is one of epidemic proportions in North America. In the United States, for example, an estimated 2.7 million children, or 42 per 1,000 children, were reported

to Child Protective Service agencies as victims of child maltreatment in 1991 (Daro & McCurdy, 1992). This rate represents an increase of 40% since 1985, and the steady nationwide increase of 6% per year over these years suggests that reports will continue to grow in the years ahead. Although no national statistics for child maltreatment are compiled currently in Canada, data collected by individual provinces and territories (according to the unique definitions generated by each) reflect the general trend toward increased reporting evidenced in the U.S.

The question of whether an increase in reports over recent years reflects an actual increase in the occurrence of child maltreatment or the presence of other factors, such as increased public awareness of the problem or changes in reporting systems, is not an easy one to answer. Expert opinion, however, suggests that all these factors are relevant. With respect to the belief that the incidence of child maltreatment is, in fact, increasing, federally appointed liaisons for child abuse and neglect in roughly half of the states in the U.S. cite economic stress due to poverty, unemployment, and related work concerns as the primary contributing factor (Daro & McCurdy, 1992).

It is important to bear in mind that, although even these official child maltreatment statistics are disturbing, under-reporting of child abuse and neglect is considered a major problem in obtaining an accurate

assessment of its prevalence (e.g., Daro, 1988; Wachtel, 1989). In addition, the existence of different definitions of child abuse and neglect held by the various states in the U.S. and provinces and territories in Canada means that parental acts defined as maltreatment in some jurisdictions might not be defined as such in others. An example illustrating the impact of both these points on child abuse incidence statistics is provided by the results of a national family violence survey conducted in the U.S. (Straus & Gelles, 1988). The study revealed that each year approximately 1.5 million children experience very severe abuse, defined as kicking, burning, scalding, or threatening or attacking the child with a knife or a gun. When an act of severe violence, defined as "hitting a child with an object" was added to the definition of child abuse, the estimated rate increased to 6.9 million. In total, 10.7 percent of parents surveyed admitted to having perpetrated a "severe violent act" against their children in the previous year (Straus & Gelles, 1986).

Prevalence rates of sexual abuse have also varied according to the sources of data and the definitions employed. For example, whereas the National Committee for Prevention of Child Abuse (NCPCA) reported an "official" sexual abuse rate of 15% in 1991, this rate has been estimated to be as high as 62 percent for girls and 31 percent for boys (Dubowitz, 1986).

In studies involving retrospective reports of childhood abuse experiences by university students, between 12 and 24 percent of students have reported experiencing physical abuse leading to, at minimum, bruises or bleeding (e.g., Graziano & Namaste, 1990; Henschel, Briere, Magallenes, & Smiljanich, 1990; Runtz, 1992). When criteria for behaviors constituting physical abuse are relaxed only slightly, these rates are found to be even higher. For example, Graziano and Namaste (1990) found that 28% of college students reported having experienced either severe pain, or welts and bruises as a result of treatment by their parents, and Runtz (1987) ascertained that 29% of university women reported having been beaten, kicked, pushed, and/or injured by their parents.

As Cicchetti and Carlson (1989) have pointed out, the costs of such maltreatment, both in economic and human terms, are astronomical. These costs involve perhaps billions of dollars spent in treatment and social services, lessened productivity for victims of maltreatment, and a host of "psychological tragedies" for these individuals.

The long-term effects hypothesized to result from a history of childhood maltreatment are many and varied. For individuals who were sexually abused, these include interpersonal problems (e.g., Briere & Runtz, 1990; Briere & Zaidi, 1989; Herman, 1981), sexual problems

(e.g., Jehu, Gazan, & Klassen, 1985; Maltz & Holman, 1987; Meiselman, 1978), and a variety of psychiatric sequelae such as depression (Briere & Runtz, 1987; Gold, 1986; Peters, 1988), anxiety (e.g., Briere, 1984; Herman & Schatzow, 1987; Murphy *et al.*, 1988), fear (e.g., Gorcey, Santiago, & McCall-Perez, 1986), personality disorders (e.g., Bliss, 1984; Coons & Milstein, 1986), post-traumatic symptoms (e.g., Briere, 1984; Craine, Henson, Colliver, & MacLean, 1988; Linberg & Distad, 1985), and suicidal feelings (e.g., Briere & Runtz, 1986; Bryer, Nelson, Miller, & Kroll, 1987; Sedney & Brooks, 1984). Such individuals have also been found to suffer from cognitive distortions such as guilt, self-blame, and low self-esteem (e.g., Burt & Katz, 1987; Jehu, 1989; Jehu, Gazan, & Klassen, 1985).

Although research on the possible long-term effects of childhood physical abuse has not been as profuse as that of childhood sexual abuse, a number of possible consequences of this former type of abuse have also been identified. These are remarkably similar to those observed for sexual abuse, and include low self-esteem (Cole, 1986), psychiatric sequelae (e.g., Briere & Runtz, 1988; Bryer, Nelson, Miller, & Kroll, 1984; Cole, 1986; Swett, Surrey, & Cohen, 1990), sexual problems (Cole, 1986), borderline personality disorder (Brown & Anderson, 1991), substance abuse (e.g., Brown & Anderson, 1991; McCord,

1983), suicidal feelings (Briere & Runtz, 1988; Brown & Anderson, 1991), self-injurious behavior (Briere, Henschel, Smiljanich, & Morlan-Magallanes, 1990), antisocial behavior (Pollock, Briere, Schneider, Knop, Mednick, & Goodwin, 1990), and interpersonal aggression and criminal behavior (Briere & Runtz, 1990; McCord, 1983; Pollock *et al.*, 1990).

Rationale for Studying Psychological Maltreatment

Unlike physical abuse and sexual abuse, with their burgeoning research literature, psychological child maltreatment has received little attention as a topic of public or professional concern. This is due in large part to difficulties encountered in arriving at and agreeing upon definitions of psychological maltreatment (e.g., Corson & Davidson, 1987; Daro, 1988; Frost, 1982; Garbarino, Guttmann, & Seeley, 1986, Hart, Germain, & Brassard, 1987). The lack of consensus concerning the definition of psychological maltreatment has rendered research, policy planning, identification of cases, and, ultimately, intervention with children and families problematic at best.

Despite a paucity of research devoted to such maltreatment, there appears to be a general perception among lay persons and professionals alike that emotional abuse and neglect can have deleterious effects upon their victims. For example, textbooks and professional literature

concerned with child-rearing practices have pointed to possible consequences of emotionally abusive acts directed toward children, such as lowered self-esteem and behavioral disturbances (Martin & Beezley, 1976). In addition, clinicians working with adults who were psychologically maltreated during childhood have long been aware of the detrimental effects such maltreatment can produce (e.g., Cook, 1991; Forward, 1989; Miller, 1981; Shengold, 1989). Because of the scarcity of research findings, however, intervention strategies directed toward survivors of child psychological maltreatment have tended to rely more on intuitive rather than empirical underpinnings (Rosenberg, 1987).

In the public sector, results of a recent public opinion poll commissioned by the National Committee for the Prevention of Child Abuse (NCPCA) indicated that nearly three-quarters of respondents believed that "repeated yelling and swearing" at a child often or very often results in long-term emotional problems for the child. These results are particularly striking when compared to the additional finding that only 42% of respondents believed that the use of corporal punishment would result in a similar level of harm to the child (Daro & Mitchell, 1987).

Although the limited research findings available tend to confirm the belief by clinicians and the general public that psychological

maltreatment is indeed harmful, a great number of difficulties plague both research efforts and the gathering of incidence data in this area. Not the least of these problems is that of identifying the acts that constitute psychological maltreatment.

What is Psychological Maltreatment?

It is apparent from the different "definitions" of psychological maltreatment used in the theoretical writings and in the few studies of psychological maltreatment that have been conducted to date, that no one definition of psychological maltreatment has been accepted as a standard. In general, child abuse and neglect definitions have evolved slowly over the years to recognize more behaviors on the part of caretakers as abusive or "damaging" to children.

Kempe and his colleagues defined child abuse narrowly and in strictly physical terms when reporting on the "battered child syndrome" in 1962. They considered this to be "a clinical condition in young children who have received serious physical abuse, generally from a parent or foster-parent" (Kempe *et al.*, 1962, p. 4). The recognition in formal child abuse definitions of sexual abuse, less "serious" types of physical harm, and various forms of neglect, occurred gradually. Psychological maltreatment, when it was considered, tended to be

described in terms of emotional neglect (Falconer & Swift, 1983; Wachtel, 1989).

Probably the first formal recognition in North America of psychological forms of child maltreatment occurred when the U.S. Government enacted its Federal child abuse statute in 1974. The U.S. Child Abuse and Prevention Act defined child abuse and neglect rather broadly, as follows:

> The physical or mental injury, sexual abuse, negligent treatment, or maltreatment of a child under the age of eighteen by a person who is responsible for the child's welfare under circumstances which indicate that the child's health or welfare is harmed or threatened thereby as determined in accordance with regulations prescribed by the Secretary. (History of child abuse prevention and treatment act Public Law 93-247, 1978.)

Although the broad nature of this definition might be considered by some to be favorable, it is also problematic. Criticisms of such a definition include confusion between the acts committed and the intent of the perpetrator, failure to consider cultural relativism, the dynamic nature of societal views of potentially injurious behavior, and the existence of inconsistent standards of behavior within society, such as the condoning of corporal punishment in some schools (Wachtel, 1989).

The difficulties inherent in applying such a definition generally in the process of identifying and prosecuting cases of child abuse are considerably pronounced when applied specifically to psychological maltreatment. Although the U.S. Federal statute recognizes "mental injury" as a category of child abuse, no clarification is provided as to what phenomena constitute such injury. Essentially, the task of developing clearer definitions and guidelines for enforcement is left to each state. The unfortunate result is that most of the state child abuse and neglect statutes either fail to define the category of "mental injury", or do so ambiguously (Corson & Davidson, 1987; Hart, Geraldo, & Brassard, 1986).

A similar situation exists in Canada, where child welfare is considered to be a provincial matter. Individual provinces and territories are thus charged with the responsibility of developing their own definitions and guidelines concerning child abuse. Unfortunately, like many states in the U.S., provinces and territories in Canada do not clearly define psychological forms of maltreatment. It is not surprising therefore that psychological maltreatment cases in Canada and the U.S. tend not to be pursued unless they are associated with physical abuse, sexual abuse, or neglect (Corson & Davidson, 1987; G. F. Phaneuf, personal communication, April 1, 1992).

Recent Definitions of Psychological Maltreatment

Despite the problematic nature of definitions of psychological maltreatment, a number of occurrences in recent years have resulted in some progress toward clearer definitions since the U.S. Federal Statute was drafted. First, U.S. organizations concerned with gathering national incidence data on child abuse developed their own definitions of psychological maltreatment and these have provided some guidance for individual states attempting to clarify their own definitions. For example, the American Humane Association (1980) definitions read as follows:

> Emotional maltreatment: includes behavior on the part of the caretaker which causes low self-esteem in the child, undue fear or anxiety, or other damage to the child's emotional well-being.
>
> Emotional Abuse: active, intentional berating, disparaging or other abuse behavior toward the child which impacts upon emotional well-being of the child.
>
> Emotional Neglect: passive or passive/aggressive inattention to the child's emotional needs, nurturing, or emotional well-being (pp. 336-337).

In comparison, the National Center on Child Abuse and Neglect (1981) definitions read:

Emotional Abuse: verbal or emotional assault (e.g., threatening, belittling); close confinement (e.g., tying, locking in closet); other or unknown (e.g., attempted physical or sexual assault).

Emotional Neglect: inadequate nurturance/affection (e.g., failure to thrive); knowingly "permitted" maladaptive behavior (e.g., delinquency, serious drug/alcohol abuse), and; other (e.g., refusal to allow needed remedial care for diagnosed emotional problem).

Both of these definition sets reflect the tradition in the field of child protective services to distinguish between "abuse" and "neglect" (Garbarino *et al.*, 1986; Whiting, 1976). Abuse is usually considered to involve direct actions on the part of the parent or guardian (i.e., acts of commission), whereas neglect is typically considered to involve a failure on the part of the guardian to provide essential care (i.e., acts of omission). Some authors, however, (e.g., Garbarino *et al.*, 1986) choose not to emphasize the dichotomy between abuse and neglect", claiming that the "'active'/'passive' abuse/neglect distinction may obscure the multifaceted nature of much psychological maltreatment" (p. 3). Garbarino and his colleagues base their argument on the claim that an abusive act such as rejecting a child may involve both active elements, such as verbal assault, and passive elements, such as withdrawal of attention. Rather than refer to abuse and neglect, then,

and especially where psychological maltreatment is considered they prefer to refer to the broader concept of child "maltreatment." Many other writers in this area have adopted this concept, including the present author.

Another important development in the "movement" to clarify and understand psychological maltreatment was the establishment of the Declaration of the Psychological Rights of the Child in 1979. This document, which recognizes such rights of children as love and freedom from fear, personal, spiritual, and social development, and education and play, was prepared by child, educational, and school psychologists in recognition of the International Year of the Child (Catterall, 1982; Hart *et al.*, 1986). In 1980, the Office for the Study of the Psychological Rights of the Child (OSPRC) was established at Indiana University (Purdue University at Indianapolis) as a means of promoting the basic principles of this Declaration. The OSPRC has functioned since that time as a clearing house and coordinating center for issues and projects related to psychological needs and rights of children and adolescents (Hart *et al.*, 1987).

Among the accomplishments of the OSPRC was the organization of the 1983 International Conference on Psychological Abuse of Children and Youth. This was the first major conference devoted to psychological

maltreatment, and had as its main purpose to "establish the present state of knowledge and most promising directions for future work regarding psychological maltreatment" (Hart *et al.*, 1986, p. 140). In preparing for the Conference, the OSPRC conducted a review of the literature relevant to psychological maltreatment. This review led to delineation of eight major domains of psychological maltreatment around which the Conference was organized: mental cruelty; sexual abuse and exploitation; living in dangerous and unstable environments; drug and substance abuse; influence by negative and limiting models; cultural bias and prejudice; emotional neglect and stimulus deprivation; and institutional abuse.

An obvious benefit of describing these domains was the recognition they gave to the extensive and pervasive nature of psychological maltreatment. As conceptualized by these domains, psychological maltreatment is "complex, multifaceted and manifested in both blatant and subtle ways" (Hart *et al.*, 1986, p. 142). Identification and description of these domains also assisted in the development during the Conference of a generic working definition for psychological maltreatment. This definition, an enhanced version of that initially proposed by Garbarino and Gilliam (1980) reads as follows:

> Psychological maltreatment of children and youth consists of acts of omission and commission which are judged on the basis of a combination of community standards and professional expertise to be psychologically damaging. Such acts are committed by individuals, singly or collectively, who by their characteristics (e.g., age, status, knowledge, organizational form) are in a position of differential power that renders a child vulnerable. Such acts damage immediately or ultimately the behavioral, cognitive, affective, or physical functioning of the child. Examples of psychological maltreatment include acts of rejecting, terrorizing, isolating, exploiting, mis-socializing. (Proceedings Summary, 1983).

Although subject to some of the criticisms levelled at other "broad" definitions of child maltreatment, this definition is noteworthy for a number of reasons. First, it recognizes that the acts considered to be psychologically damaging must be judged on the bases of both societal standards and professional opinion. This allows for cultural relativism and changing societal views of what acts might be considered "damaging" to be considered, and, additionally, implies that expert opinion is important in this regard--with or without the existence of

substantiating empirical data. Second, the definition expands the view of psychological maltreatment of children by recognizing that groups of individuals, including organizations and systems (e.g., school policies related to punishment practices), can contribute to such maltreatment. Third, effects on the child of such maltreatment are recognized as occurring not only immediately but potentially at some point in the future. Finally, the definition is valuable in that, like the NCCAN (1981) definition, specific examples of psychological maltreatment are provided: Rejecting; Terrorizing; Isolating; Exploiting, and; Mis-socializing. These five forms of psychological maltreatment are very similar to those proposed by Garbarino *et al.* (1986) (i.e., Rejecting, Isolating, Terrorizing, Ignoring, and Corrupting). The identification of such acts is an important first step in the process of operationalizing definitions of psychological maltreatment (Garbarino *et al.*, 1986; Hart *et al.*, 1987).

The Acts of Psychological Maltreatment

As a result of recommendations received by the OSPRC from interested professionals and organizations, the list of acts thought to constitute psychological maltreatment was expanded. This modified list includes the following seven behaviors: Rejecting; Degrading; Terrorizing; Isolating; Corrupting; Exploiting; and Denying Emotional

Responsiveness. The subcategory[2] of "Corrupting" in this new list is equivalent to that of "Mis-socializing," which appears in the OSPRC definition. In addition, "Degrading" and "Denying Emotional Responsiveness" (arguably forms of rejection) were recognized as separate subcategories; "Denying Emotional Responsiveness", equivalent to "Ignoring" in Garbarino *et al.*'s (1986) categorization scheme, is distinguished from "Rejecting" primarily in terms of passive and active motives, respectively, implied by each behavior subcategory (Hart *et al.*, 1987).

In contrast to the recognition of these seven acts by the OSPRC, Baily and Baily (1986) have identified a much larger set of 16 behavior subcategories thought to represent psychological maltreatment. These behavior clusters were created as a result of responses from 207 protective service professionals surveyed by Baily and Baily with respect to what behaviors constitute emotional maltreatment and, if continued, would result in emotional deficits in children. The resulting subcategories have been criticized, however, as suffering from lack of clarity and distinctness (e.g., McGee & Wolfe, 1991a). For example, parental behaviors comprising one subcategory clearly overlap with those

[2] In the remainder of this manuscript, the broad forms of Psychological, Physical, and Sexual childhood maltreatment will be referred to as *categories*; subforms of any these broad forms will be referred to as *subcategories*.

comprising another, as evidenced by the similarity of the following statements from different subcategories:

> The child is frequently called derogatory, offensive and obscene names and also told that s/he is worthless and unwanted (Baily & Baily, 1986, p. 15), and;
>
> Although innocent, the parent frequently calls him/her names, such as liar, thief, or whore, and regularly tells the child that s/he is physically unacceptable, such as too fat, too thin, or uncoordinated. (Baily & Baily, 1986, p. 16).

In addition, as McGee and Wolfe (1991a) pointed out, some of the subcategories described by Baily and Baily (1986) are vague and tautological (e.g., "The parent uses excessive threats and *psychological punishments*," italics added). Upon close analysis furthermore, most, if not all of these behavior clusters can easily be subsumed within the major subcategories identified by the OSPRC.

A reflection of the imperfect state of definitional standards in this area, some researchers investigating potential effects of psychological maltreatment have defined the phenomenon broadly (e.g., Claussen & Crittenden, 1991), while others have targeted specific acts for study, such as rejection (e.g., George & Main, 1979; Main & George, 1985; Rohner & Rohner, 1980), verbal abusiveness and psychological

unavailability (e.g., Egeland & Sroufe, 1981; Egeland, Sroufe, & Erikson, 1983), and verbal aggression (e.g., Ney, 1987; Vissing, Straus, Gelles, & Harrop, 1991). Regardless of the scope of research emphasis, however, the fact that specific acts of psychological maltreatment have been identified and targeted for empirical study represents significant advancement toward the operationalization of such acts.

Despite progress achieved to date, however, a great debate continues to rage over how psychological maltreatment should be defined, witness the recent publication of an issue of Development and Psychopathology devoted entirely to definitional issues of psychological maltreatment. A dozen invited articles from prominent researchers, clinicians, and policy advocates in the area of childhood maltreatment make it clear that, although common views exist, the controversy over how psychological maltreatment should be defined is likely to continue for some time yet.

An obvious theme that emerged from these commentaries, however, is that psychological maltreatment is an area of prominent investigative importance for professionals from many varied fields of expertise, and additionally, that research in this area can and should continue despite the lack of definitional consensus. In fact, some authors believe, as Haugaard (1991) argued, that definitions of psychological

maltreatment should be delayed "until an accumulation of the results of empirical studies show which parent-child interactions result in psychological harm" (p. 75). In this view, a definition of psychological maltreatment would evolve as a result of the "contribution of research findings to existing social definitions, and to the incorporation of social definition into research" (McGee & Wolfe, 1991b, p. 121). What these authors are suggesting, then, is a dynamic process--one that is based on both a sociological perspective, which involves societal standards, opinions, and beliefs about what parental behaviors are acceptable or "proper," and a scientific perspective, which demands that harmful effects of a given behavior be demonstrated empirically.

Incidence of Psychological Maltreatment

As discussed earlier, it has been argued that only a small percentage of child maltreatment cases in general are reported to child protective services or police (e.g., Daro, 1988). It appears that this is especially true for cases of psychological maltreatment, perhaps due to poor definitional consensus. Formal definitions of psychological maltreatment, for example, do not exist in some U.S. states or Canadian provinces; in fact, some states do not even formally accept reports of psychological maltreatment (Daro & McCurdy, 1991).

Even when acts thought to represent psychological maltreatment have been identified, there are no standards for determining the "critical threshold" where low levels of such behaviors cease to be simply aversive or annoying and become "damaging" to the victim. A similar situation has existed for years with respect to controversy over corporal punishment, yet as a result of both professional and public attention directed to this topic, various physical acts on the part of adults, such as striking a child with an object or shaking an infant, have come to be recognized as high-risk abusive behaviors.

Evidence for the argument that relatively few cases of psychological maltreatment are reported has been presented by Hart *et al.* (1987), who pointed out that data collected by the National Centre on Child Abuse and Neglect (NCCAN, 1981) through its National Study of Incidence and Severity of Child Abuse and Neglect are at variance with state-reported data collected for a similar time period by the American Humane Association (AHA, 1981). Specifically, analyses of these data indicate that roughly half of psychological maltreatment cases that could have been reported, in fact, are reported.

An additional problem encountered in identifying psychological maltreatment is that financial resources available to child protective services in North America are limited; thus, if psychological

maltreatment is poorly defined and its effects are unclear, there may be bias at both a systems and service worker level toward focusing on the better defined and more "visible" forms of maltreatment. As a point of fact, Giovannoni (1991) referred to findings from the latest NCCAN National Study (NCCAN, 1988) to suggest that an imbalance between financial resources available to Child Protective Services in the U.S. and increased demand for these services in recent years has resulted in the use of a higher threshold for the establishment of maltreatment by service workers. She also presented findings from her own research (i.e., Giovannoni, 1989) to indicate that substantiated cases of child maltreatment are "distinguishable from those not taken into the system by the presence not only of more serious maltreatment but also by the presence of multiple kinds of maltreatment" (Giovannoni, 1991, p. 56).

This latter point is an important one. The fact that psychological maltreatment tends to co-exist with other forms of maltreatment (i.e., physical and sexual abuse, and neglect) that have been viewed historically as more *serious* also presents a problem for identifying psychological maltreatment cases; formal recognition of the psychological aspects of maltreatment in such cases is unlikely to occur.

When psychological maltreatment does occur in severe enough forms to be both recognized and to warrant reporting on its own merit,

however, such cases might still be ignored by professionals or citizens who have only occasional contact with the child or family. In such cases, corroborating evidence would typically be lacking and, thus, insufficient information would be available for a valid report to be made (Daro, 1988).

Despite limitations inherent in the reporting of this form of maltreatment, the incidence of emotional abuse reported by NCCAN in its first National Study from May of 1979 through April of 1980 represented a rate of approximately 2.2 per 1,000 children under the age of 18 in the United States (NCCAN, 1981). In a second National Incidence Study sponsored by NCCAN in 1988, an emotional abuse and neglect rate of 2.8 per 1,000 children in the U.S. was reported (NCCAN, 1988).

Records kept by the American Association for Protecting Children (AAPC), a division of the American Humane Association charged with keeping national statistics on child maltreatment from 1976 to 1987, indicate that over 2.1 million cases of child maltreatment were reported in 1986, the last year for which AAPC statistics were published. Whereas most of the cases reported dealt with neglect (55%), physical abuse (27.6%), and sexual abuse (15.7%), psychological maltreatment,

(e.g., emotional maltreatment, mental cruelty/injury) accounted for a mere 8.3% of these cases (AAPC, 1987).

Unfortunately, detailed analysis of state level data has not been conducted since Federal funding to the AAPC was eliminated in 1987. Since that time, the National Committee for the Prevention of Child Abuse (NCPCA) has conducted annual surveys of child welfare administrators in all fifty states in an attempt to fill this void (Daro, 1992). The most recently published findings from these surveys indicate that the rate of emotional maltreatment in 1990 was 9% of the 2.5 million reports of maltreatment received by child protection service agencies across the U.S. (Daro, & McCurdy, 1991). This rate is similar to that reported by the AAPC for 1986.

It is apparent that these data are fraught with difficulties, however, and should not be considered to be accurate incidence estimates. First, only 22 states classified maltreatment cases according to all four types reported by AAPC and NCPCA (i.e., physical abuse, sexual abuse, neglect, and emotional maltreatment). Statistics reported for emotional maltreatment, then, are with respect only to these states. Second, most states report only the primary maltreatment allegation presented in each case. Because emotional maltreatment tends to occur in conjunction with other forms of maltreatment, the true incidence of emotional

maltreatment even in reported cases is likely to be underestimated (Daro & McCurdy, 1991). Last, and probably most important, these data represent only those cases of maltreatment reported to child protective services. It is almost certain that the true incidences of all forms of child maltreatment are much greater than those indicated by formal reports. For reasons discussed earlier in this paper, this is likely to be especially true for psychological maltreatment.

Additional evidence for the argument that the incidence of psychological maltreatment might be greater than formal reports indicate has been presented by Vissing, Straus, Gelles, and Harrop (1991). Results from their interviews with respondents in the Second National Family Violence Survey (Straus & Gelles, 1986, 1990) indicate that the rate of verbal aggression by parents toward their children could be as high as 267 per 1,000 children. This is a rate enormously greater than the emotional maltreatment rate of 2.8 per 1,000 children estimated by NCCAN for 1988. Although Vissing *et al.* (1991) used a conceptualization of emotional maltreatment that could be considered controversial (i.e., verbal/symbolic aggression involving acts such as insulting or swearing at the child, or saying something to spite the child), these acts are in line with those considered by many to be emotionally

damaging to the child (e.g., Garbarino *et al.*, 1986; Garbarino & Vondra, 1987; Hart *et al.*, 1987).

Despite the high incidence rate reported in their study, Vissing *et al.* (1991) argued that, in fact, their data represent lower bound estimates of parental verbal abusiveness because of the difficulty parents were thought to have had in remembering the number of times during the previous year they engaged in such behavior. The investigators suggested that the actual number of children who are victims of verbal abuse by their parents is probably even greater than these reported estimates.

In summary, current estimates of the incidence of child psychological maltreatment are problematic and should be considered conjectural; much work has yet to be done at all levels of child maltreatment investigation before a more accurate picture of incidence is available. Despite the problems inherent in assessing incidence however, it is obvious that psychological maltreatment of children is a significant problem in North America and one worthy of concerted research efforts.

Possible Consequences of Psychological Maltreatment

Although the present study is concerned with the possible consequences for adults who experienced childhood psychological maltreatment, research findings for this group are scarce. Therefore, the

findings relevant to possible psychological consequences for children will be described, followed by a presentation of the few available findings pertaining to adults. Where possible, implications of child research for adult outcome will be discussed.

It has been suggested that psychological maltreatment is so potentially destructive because it constitutes an attack by the perpetrator on the child's ability to fulfil basic psychological needs (e.g., Gil, 1987; Hart *et al.*, 1987). The result of such an attack is "negative stress, producing various types and levels of destructiveness to the victim's functioning dependent on the influence of mediating variables" (Hart & Brassard, 1987, p. 161). Maslow's (1968, 1970) theory of needs hierarchy in the explanation of human motivation and behavior is considered an important basis for understanding the negative effects that psychological maltreatment may have on children. Specifically, the "deficiency needs," which include physiological needs, safety needs, belongingness and love needs, and esteem needs, are deemed most relevant because efforts by the child to fulfil these needs are most likely to be compromised by the occurrence of psychological maltreatment. For example, terrorizing behaviors threaten a child's safety needs and possibly even physiological needs, whereas rejecting or ignoring a child are likely to compromise belongingness and love needs. Degrading and

exploiting a child, furthermore, could jeopardize her or his esteem needs (Hart *et al.*, 1986).

The knowledge base concerning effects of psychological maltreatment upon children is comprised of two main sources: expert opinion based both on theory and clinical experience, and isolated research findings. Long lists of possible consequences have been generated by professionals who have contributed to the first source. These consequences tend to fall within the following categories: habit disorders (e.g., sucking, biting, rocking); conduct disorders (e.g., withdrawal, antisocial behavior); neurotic traits (e.g., sleep disorders, inhibition of play); psychoneurotic reactions (e.g., hysteria, obsessions, compulsions, phobias); behavior extremes (e.g., extreme passivity or aggressiveness); overly adaptive behaviors that are either inappropriately adult or infantile; lags in cognitive or emotional development, and; self-destructive behavior, including suicide attempts (Broadhurst, 1984; Hart *et al.*, 1987; Wald, 1961). As Garbarino *et al.* (1986) suggested, however, the effects of psychological maltreatment will vary as a result of important situational characteristics, such as the developmental stage of the child and the severity and chronicity of the maltreating behaviors. In addition, the presence of situational or characterological moderating factors may play an important role in determining child outcome. The

literature concerning so-called "stress-resistant" children is of particular interest in this regard (e.g., Anthony & Cohler, 1987; Garmezy, 1981; Pines, 1979), but these factors were not examined in the present study.

Research Findings

The second main source of knowledge concerning psychological maltreatment effects on children is derived from empirical studies. In a review of the literature, Hart *et al.* (1987) generated a list of possible consequences of psychological maltreatment that are supported by some research evidence. The behaviors appearing in this list are remarkably similar to those generated by expert opinion.

Of the controlled empirical studies that have been conducted on the potential effects of psychological maltreatment, those most relevant to the present analysis include the study of parental rejection (George & Main, 1979; Main & George 1985; Rohner & Rohner, 1980), parental verbal abuse and psychological unavailability (Egeland & Sroufe, 1981; Egeland, Sroufe, & Erikson, 1983), parental verbal aggression (Vissing *et al.*, 1991), and psychologically maltreating parental behaviors, more generally defined (Claussen & Crittenden, 1991). Results from studies in each of these areas will be summarized in turn.

Rohner and Rohner (1980) compared parenting behaviors cross-culturally in an effort to examine the antecedents and consequences of

parental rejection. Cultures studied were diverse, ranging from Americans to Columbian Mestizo, the Ik of Africa, and villagers of Tepoztlan, Mexico. These researchers determined that "rejection is manifested around the world in two principle ways, in the form of parental hostility and aggression on the one hand, and in the form of parental indifference and neglect on the other" (p. 190). The (universal) consequences of parental rejection they described include anxious attachment of the child to the parent, hostility, dependence, negative self-evaluation, emotional instability, emotional unresponsiveness, and a negative world view. As these researchers indicated, their results do not represent an exhaustive listing of the effects of parental rejection. They concluded, however, that these personality traits, at least, can be expected to occur as a result of parental rejection.

The work of George and Main (1979) and Main and George (1985) and their colleagues (e.g., Main & Goldwyn, 1984) also concerned parental rejection. The primary focus of these studies, however, was "a search for inter-generational similarities between abuse-related behavior patterns characterizing child-abusing parents and the potential development of similar behavior patterns in their young children" (Main & George, 1985, p. 411). Interestingly, these researchers conceptualized physical abuse as a form of rejection, and

hypothesized that: (a) children who were physically abused behave in ways similar to rejected children (i.e., avoidance of others) (George & Main, 1979); (b) physically abused children behave toward distressed age-mates in ways characteristic of abusive parents (i.e., avoidant, threatening and abusive) (Main & George, 1985), and; (c) parental rejection of children is related to the parents' experiences of having been rejected as children by their own parents (Main & Goldwyn, 1984). Support was found for all these hypotheses. In general, physically abused children were observed to engage in isolating behaviors by physically avoiding their care-givers and peers, ambivalent "approach/avoidance" behaviors in response to friendly gestures by care-givers and peers, response with anger, fear, or aggression to distress (e.g., crying) in peers, and physically threatening or assaultive behaviors toward care-givers and peers. In addition, mothers who had apparently been rejected by their own mothers were found more likely to be rejecting of their children.

Probably the most compelling empirical evidence for the anticipated negative consequences of psychological child maltreatment, however, is provided by a longitudinal prospective study by Egeland and his colleagues (Egeland & Sroufe, 1981; Egeland, Sroufe, & Erikson, 1983; Erickson, Egeland, & Pianta, 1989; Farber & Egeland, 1987).

These researchers were interested primarily in the relationship between early child maltreatment and developmental outcomes. Subjects were 267 mother-child dyads in which the investigators determined the children were at risk for developmental problems due to such factors as poverty, and limited education and youth of the mothers. In addition to a non-abused control group, four maltreatment groups were defined: physically abusive; hostile/verbally abusive; psychologically unavailable; and neglectful. In the recognition that physical abuse often accompanies other forms of maltreatment, the latter three groups were divided into "with physical abuse" and "without physical abuse." Mothers in the hostile/verbally abusive groups were characterized as criticizing and chronically finding fault with their children, and engaging in constant berating and harassment of them. Mothers judged to be psychologically unavailable were unresponsive to their children and passively rejecting of them. Neglectful mothers were described as irresponsible or incompetent in managing day-to-day child care activities (Egeland *et al.*, 1983). Investigators became involved with the mothers in their third trimester of pregnancy and assessed mother and child behaviors and interactions in a variety of situations. Measures used were considered to be appropriate for the different developmental stages at which the children were assessed.

The first phase of the study (Egeland & Sroufe, 1981) involved assessments when the children were 3, 6, 12, 18, and 24 months of age. Although maltreated infants did not differ significantly from controls at 3 and 6 months, differences were observed by 12 months and became most evident by 18 months. These differences included: a higher rate of anxious attachment to the mother and greater frequency of anger, frustration, noncompliance, and aggression among all groups of maltreated children; more whining and negative affect, and less positive affect among children with psychologically unavailable mothers, and; greater negative affect among children with neglectful mothers.

In a follow-up study (Egeland *et al.*, 1983), the children were assessed alone at 42 months in their reaction to a frustrating situation (i.e., the "barrier box" task), and with their mothers in a series of teaching tasks. At 4½ to 5 years of age, 80 of the children were observed in their normal preschool or day-care settings. Compared with controls, all four groups of maltreated children in this follow-up investigation demonstrated a continued pattern of poor emotional, behavioral, and cognitive functioning. Children in all maltreatment groups evidenced greater difficulty in coping with a frustrating situation, had poorer interaction with their mothers and inferior performance in the teaching situation, displayed lower social competence, and had

difficulties in adapting to preschool. At 42 months, children whose mothers were verbally abusive were observed to express the most anger and to be the most avoidant of their mothers. Children in the physically abused group were the most distractible and non-compliant, and expressed a great deal of negative emotions in all situations. Children whose mothers were psychologically unavailable were typically angry and non-compliant and exhibited a large number of pathological behaviors in preschool, including high levels of dependency and poor ego control. The neglected children, finally, received the lowest ratings of all groups in both measures of self-esteem and agency (defined as confidence and assertiveness in dealing with the environment). They were also the least flexible and creative of all groups in their attempts to solve the frustration task. In general, these patterns of negative effects observed in all maltreatment groups were found to persist when children were again followed up at four to six years of age (Erickson *et al.*, 1989).

Recently, Vissing *et al.* (1991) studied the incidence and effects of parental verbal aggression in a sample more representative of the North American population. Participants included 3,346 respondents in the Second National Family Violence Survey (Straus & Gelles, 1986, 1990) who had a child under 18 living at home. The researchers determined

that parental verbal/symbolic aggression, which involved such acts as insulting or swearing at the child, doing something to spite her or him, or throwing, smashing, or hitting something, was quite common among American families. Roughly two-thirds of parents in the sample reported one or more such incidents in the years prior to the study; parents who used verbal aggression, furthermore, did so an average of 12.6 times during the year studied, and over one-third of the parents reported 11 or more instances.

The investigators discovered that a higher rate of verbal aggression used by the parent was associated with a greater likelihood in the child of interpersonal problems, delinquency, or physical aggressiveness. Such behavioral problems were found to occur even when physical abuse did not also occur. This relationship was demonstrated across all age groups and in both sexes of children, as well as in both high and low family socioeconomic levels.

Additional findings were that, when compared with physical aggression, parental verbal aggression tended to be associated more closely with the child's psychosocial problems. Experiencing both verbal aggression and physical violence, finally, was reported to be more strongly related to child behavioral problems than experiencing either of these forms of maltreatment alone.

A common assumption among professionals in the child maltreatment area is that psychological maltreatment co-exists with physical forms of maltreatment. Claussen and Crittenden (1991) investigated this hypothesis and, in addition, hypothesized that this combination would be more strongly related to negative child outcome (e.g., behavioral disorders) than severity of physical injury. Their sample consisted of 175 families that had been reported to child protective services for suspected child physical abuse or neglect. Controls were 175 "normative" families recruited from the community and 39 "disturbed" families recruited from mental health treatment centres where a child in the family was receiving treatment. Each family was visited from two to four times at home, and reported families were also investigated by child protective service workers. Various assessment methods were used, including rating scales concerning effects of maltreatment on the child's well-being and development, checklists of any maltreating behaviors used by parents, and diagnostic codes used by the local Department of Health and Rehabilitative Services for maltreatment reports.

In general, both of the primary hypotheses in their study were supported. The investigators determined that physical abuse and psychological maltreatment typically were present together in cases

reported to child protective services. In fact, physical abuse was rarely found to occur without concomitant psychological maltreatment in either the reported or the community sample. Overall, however, psychological maltreatment was more often found to occur alone in the community sample, where stronger relations among severities of different types of maltreatment were also observed (i.e., a mild correlation between parental maltreating behaviors and severity of child injury). As the researchers suggested, results from the community sample, in particular, provided "further support for Egeland's (1985) finding that maltreatment which is not sufficiently severe to result in a need for protective services still results in developmental disorders in children" (Claussen & Crittenden, 1991, p. 14).

Another valuable source of evidence pointing to the harmful effects of psychological maltreatment on children is provided by clinical case studies concerning this form of maltreatment by school teachers. Studies by Hyman (1985) and Krugman and Krugman (1984), for example, revealed that children can demonstrate a wide range of behavioral and emotional symptoms as a result of psychologically maltreating acts perpetrated by their teachers. In these studies, teacher behaviors took such forms as verbal put-downs, harassment, name-calling, screaming at children until they cried, and physical punishment

(e.g., pulling ears, pinching, slapping). Consequences of this maltreatment for many of the 3rd and 4th grade children in the Krugman and Krugman (1984) study included (in addition to fear of the teacher) excessive worry about school performance and negative perception of school, negative self-image, decreased functioning in social situations outside of class, and nightmares, sleep disturbances, and depression. The 1st grade children in the Hyman (1985) study displayed symptoms more appropriate to their own developmental level, such as excessive dependency, withdrawal, fear of strangers and the dark, anxiety, hyperactivity, thumbsucking, crying and hairpulling, and gastrointestinal problems such as stomach aches, nausea, and vomiting.

As discussed earlier, studies concerned with outcomes in adults who experienced childhood psychological maltreatment are rare. This is despite the fact that a voluminous professional literature exists on the purported effects on adults of physical and sexual abuse. The available findings pertaining to adults, however, suggest that the negative consequences of psychological maltreatment observed in children persist in adulthood. For example, using two brief maltreatment scales they created for their study, Briere and Runtz (1988) examined the relationships of retrospective reports of physical and psychological maltreatment experiences among university women with a number of

measures of psychological symptoms. In general, the investigators found that behaviors they determined to be reflective of psychological and physical maltreatment by mothers and fathers were significantly inter-correlated. A general measure of parental abusiveness, comprised of both psychological and physical maltreating parental behaviors, was found to be associated with the measures of psychological symptomatology used by these investigators. These measures included five sub-scales of the Hopkins Symptom Checklist (i.e., Somatization; Anxiety; Depression; Interpersonal Sensitivity, and; Obsessive Compulsiveness), as well as indices of dissociation and suicidal ideation. In addition to a "global" abuse-symptom relationship, these investigators described unique associations of specific forms of maltreatment with the psychological symptom variables. Specifically, they determined that childhood physical abuse by mothers is uniquely related to subsequent interpersonal sensitivity, dissociation, and suicidal ideation, whereas childhood psychological maltreatment by fathers is uniquely associated with adult anxiety, depression, interpersonal sensitivity, and dissociation.

In a related study, these investigators examined relationships among university women's retrospective reports of childhood sexual, physical, and psychological maltreatment with three measures of

psychosocial dysfunction (i.e., self-esteem; dysfunctional sexual behavior, and; aggression) which the investigators created for the study (Briere & Runtz, 1990). After controlling for contributions of all other forms of maltreatment and symptoms, the investigators observed unique relationships between parental psychological maltreatment and subsequent low self-esteem, between sexual abuse and dysfunctional sexual behavior, and between physical abuse and anger/aggression. The investigators also observed that physical and psychological maltreatment tended to occur together and that the combination of these forms of maltreatment were associated with all three measures of symptomatology examined. An additional finding of this study was that, despite the tendency for both physical abuse and sexual abuse to be present in the histories of clinical samples of adults (e.g., Briere, 1988), university women who had experienced one of these latter forms of maltreatment typically had not also experienced the other.

In summary, results from these two studies suggest, as the investigators argued (Briere & Runtz, 1988), that it may be inappropriate to focus research efforts on a single form of child maltreatment when it is apparent that other forms are often present as well. Rather, the results suggest, as others have advanced (e.g., Garbarino *et al.*, 1986; Rosenberg, 1987), the efficacy of an ecological perspective, "where the

child's total experience of victimization or maltreatment from a variety of sources in taken into account" (Briere & Runtz, 1988, p. 336).

Another body of research related to consequences for adults of childhood psychological maltreatment is Ronald Rohner's work on parental acceptance and rejection (e.g., Rohner, 1986). Although his research, and that of others based on his theory, has primarily been concerned with children, a limited number of studies have involved retrospective recollections by adults of parenting they received as children. In general, these studies have found parental hostility (a principal expression of rejection according to Rohner, which consists of both physically and psychologically maltreating behaviors) to be related to subsequent dependency, emotional unresponsiveness, hostility and aggression, negative self-esteem, negative self-adequacy, negative world view, and emotional instability. The fact that these consequences of parental rejection observed in adults are the same as those found by Rohner (1986) in child respondents may be viewed as evidence of the enduring nature of such consequences.

The final source of research findings known to the present author to involve examination of long-term consequences of childhood psychological maltreatment are reported by Moisan and Engels (1992). In their attempt to develop a measure of psychological maltreatment for

use by adults reporting retrospectively about their childhoods, the investigators identified three sub-forms of this type of maltreatment, which they named Emotional Neglect, Hostile Rejection, and Isolation. They determined that Emotional Neglect and Hostile Rejection were related to prior psychiatric consultation, presence of a DSM-III Axis II diagnosis, and elevated scores on a measure of psychological symptomatology (i.e., the SCL-90) in a sample of psychiatric outpatients. These sub-forms of psychological maltreatment were also found to be associated with subjects' reports of physical and sexual abuse in childhood, as well as with the presence of physical conflict and drug and alcohol abuse among members of their families of origin. The Isolation factor was found to be related only to respondents' reports of physical and sexual abuse in childhood. These results, although intriguing, represent only preliminary findings, however, and the authors have pointed out that further research on their instrument "with other and larger populations is required in order to develop norms and to establish more precisely its clinical significance" (p. 1).

Considered together, the results of the empirical and case studies presented, in addition to scholarly reports from other sources, for example, Elkind's (1981) description of the "hurried child," Long and Long's (1983) account of "latchkey children", and reports of the

emotional impact on children of phenomena such as the "Munchausen syndrome" (Woollcott, Aceto, Rutt, Bloom, & Glick, 1982), provide abundant evidence that psychological maltreatment of children is both prevalent and potentially destructive to their well-being. In this regard, many writers and professional organizations, including the American Psychological Association, have called for additional and more comprehensive research in this area (e.g., Abeles, 1984; Garrison, 1987; Hart *et al.*, 1987; Rosenberg, 1987). Areas prioritized for such research include definitional issues, ecological processes and child outcomes, and protective factors and child outcomes (Rosenberg, 1987).

General Goals and Overview of the Present Study

The present study sought to contribute to the knowledge base concerning identification of parental behaviors that might be considered to constitute psychological maltreatment. Because psychological maltreatment has been conceptualized as a broad category of parental behaviors that is comprised of a number of subforms (e.g., Hart *et al.*, 1987; Garbarino *et al.*, 1986), one of the tasks of the present study was to test the efficacy of this model. In this regard, the study was concerned with identifying a large number of theoretically distinct subcategories of childhood psychological maltreatment and then testing empirically whether these subcategories are in fact distinct, or if

psychological maltreatment is better conceptualized as consisting of a smaller number of more heterogenous subforms, or perhaps even as a unidimensional construct.

Additional goals of the study were to: (a) obtain an estimate of the extent to which psychological maltreatment might have occurred in the childhood experiences of university students; (b) discover the extent to which psychological maltreatment occurred with sexual and physical forms of maltreatment in a given subject's childhood experience; and (c) examine the combined and unique associations of each of these major forms of maltreatment with three measures of subjects' current levels of psychological functioning. With respect to this latter point, the evidence for the contention that psychological maltreatment is the "core component" of childhood maltreatment (e.g., Hart *et al.*, 1987) was examined. If it is to be conceptualized as such, psychological maltreatment should be found to be at least as prevalent as other forms of childhood maltreatment and, additionally, should demonstrate stronger association than these other forms with measures of subjects' current levels of psychological functioning.

It is clear from the available research findings that the possible consequences for adult victims of childhood maltreatment are many and varied. Therefore, it would be reasonable to investigate a great number

of such consequences in a study of this nature. Because the primary focus of the present study was on the development of an instrument for assessing the prevalence of a variety of forms of maltreatment, however, a limited set of three measures of psychological functioning were used. These measures were included as a first step in examining (a) possible relationships of such measures to childhood maltreatment experiences in general, and (b) indications of possible differential "effects" of various forms and combinations of forms of maltreatment that might prove fruitful for investigation in subsequent studies.

The measures of psychological functioning that were chosen for study in the present investigation are psychological symptom status, as measured by the Brief Symptom Inventory (BSI) (Derogatis & Melisaratos, 1985; Derogatis & Spencer, 1982), trauma symptom status, as measured by the Trauma Symptom Inventory-40 (TSC-40) (Briere & Runtz, 1989; Elliott & Briere, 1991), and self-esteem, as measured by the Adult Form of the Coopersmith Self-Esteem Inventory (CSEI) (Coopersmith, 1990).

These three types of measures were chosen for inclusion in the present study because of the broad nature of psychological symptom status, and the specific natures of trauma symptom status and self-esteem. Psychological symptom status, for example, as assessed by the

BSI, provides valuable information about a subject's general level of mental health relative to established norms. Although a general index of distress (i.e., the Global Severity Index) is commonly used as the best indicator of symptomatic distress (Derogatis & Melisaratos, 1983), and was used as such in the present study, the BSI is conceived as measuring the following nine primary symptom dimensions or constructs: Somatization; Obsessive-Compulsive; Interpersonal Sensitivity; Depression; Anxiety; Hostility; Phobic Anxiety; Paranoid Ideation; and Psychoticism. Given the findings described earlier linking all forms of childhood maltreatment with one or more of these symptom clusters, the BSI seems an appropriate tool for examining broad associations of various forms of childhood maltreatment with psychological functioning. In addition, the BSI was chosen as a measure of psychological symptom status because it is a relatively well-accepted instrument suitable for assessing the psychological symptom status of non-clinical samples, including college students (Cochran & Hale, 1985). The BSI, furthermore, has good psychometric properties (e.g., Derogatis & Melisaratos, 1983), can be administered in a very short period of time, and has been used successfully by a number of researchers concerned with investigating psychological functioning of adults with histories of childhood victimization (e.g., Runtz, 1992).

Although long-term correlates of childhood maltreatment, particularly sexual abuse, have been found to include such psychological symptoms as nightmares, flashbacks, dissociative episodes, and sexual dysfunction, the BSI does not assess such sequelae. Thus, the TSC-40, which was created as a measure of the traumatic impact of abuse, was included in the present study as an adjunct to the BSI. Similar to the BSI, the TSC-40 is conceived as measuring several dimensions of psychological symptoms, namely Anxiety, Depression, Dissociation, Sleep Disturbance, Sexual Problems, and Sexual Abuse Trauma. As with the BSI, however, the total score for the TSC-40 was used in the present study as a global index of trauma symptomatology.

Self-esteem was chosen as a specific psychological attribute worthy of investigation because of the abundant theoretical and empirical evidence that all forms of child maltreatment might result in impaired self-esteem for the victim. In addition, self-esteem has been described as a relatively enduring attribute, and one which has been linked to numerous variables thought to be important to psychological health (e.g., anxiety, creativity, academic achievement, resistance to group pressure, perceived popularity, and family communication and adjustment) (Coopersmith, 1967; 1990).

Of direct relevance to this study is a model presented by Coopersmith (1967) in which domination, rejection, and severe punishment of children result in lowered self-esteem. "Under such conditions, they have fewer experiences of love and success and tend to become generally submissive and withdrawn (although occasionally veering to the opposite extreme of aggression and domination)" (p. 4). Poor effectiveness in everyday functioning and manifestation of deviant behavior patterns are correlates of low self-esteem that are further possible consequences for the child victim of parental maltreatment, according to Coopersmith (1967).

Because of the enduring nature of self-esteem, it is reasonable to expect that developmentally early modifications to this personality attribute will persist in adulthood. In fact, the conceptual model presented by Coopersmith (1967) suggests that lowered self-esteem may set into motion for the individual a downward spiral of social and emotional functioning that might endure for a lifetime. Therefore, self-esteem seems a factor of critical importance when studying possible consequences of childhood maltreatment.

The CSEI was chosen to measure self-esteem in the present study because of its acceptable psychometric properties, its short administration time, and the fact that it has been used successfully in other studies

concerned with investigating consequences of childhood maltreatment (e.g., Bagley & Ramsay, 1986; Carson, Council, & Volk, 1987; Kazdin, Moser, Colbus, & Bell, 1985; Runtz, 1992).

In addition to the primary measures of interest, a number of demographic and related background variables were assessed in the present study. These were used primarily for purposes of describing the sample, but some were expected to be related to the primary measures. For example, sex differences with respect to prevalence rates of childhood sexual abuse have been reported frequently in the literature. Specifically, from 20 to 30 percent of college females have reported a history of childhood sexual abuse, compared to 10 to 15 percent of males who have reported this form of abuse. Findings with respect to physical abuse, however, suggest somewhat more evenly distributed prevalence rates of approximately 20 to 25 percent of university males and females reporting such histories.

Two sets of family background variables that were assessed in this study were also thought to be relevant to subjects' levels of psychological functioning, and possibly even to the occurrence of child maltreatment. The first set assessed various "losses" that participants might have experienced during childhood, such as parental separation or divorce, desertion of the family by a parent, death of a parent or other close

relative, and adoption, or placement in foster care of the respondent. The second set assessed whether participants had experienced any of a number of traumatic life events, such as a serious accident, natural disaster, or physical or sexual assault.

METHOD

Preparation for the Present Study

In preparation for the present study, the first task was to create comprehensive questionnaires that could be used to assess a wide range of psychologically maltreating behaviors that adults might have experienced during childhood. Although questionnaires exist to assess physical abuse (e.g., Gelles & Straus, 1988; Runtz, 1992) and sexual abuse (e.g., Finkelhor, 1979), these are limited in the number and types of behaviors assessed. Because of this, I believe that such measures might not adequately assess the range of behaviors that could be considered physically or sexually abusive. Thus, using items from existing questionnaires as a starting point, I created more comprehensive questionnaires for assessing these latter forms of maltreatment. In order to maximize comparability among the maltreatment questionnaires created for this study, the weighted response scales used for each are identical (i.e., ranging from *never* to *very often*).

Creation of the Childhood Maltreatment Questionnaires

Different procedures were employed in the process of creating the Psychological Maltreatment, Physical Abuse, and Sexual Abuse Questionnaires and these will be described in turn.

Psychological Maltreatment Questionnaire

Creation of the Psychological Maltreatment Questionnaire proceeded in various stages. First, the relevant literature was carefully examined and the seven domains of psychological maltreatment identified by the OSPRC were judged to be the best starting point for creating a structural framework for examining psychologically maltreating parental behaviors. Some modifications were made to the OSPRC subcategories before proceeding, however. First, an attempt was made to define subcategories of psychological maltreatment for use in the present study that were as homogeneous as possible. This involved dividing some of the OSPRC subcategories in order to reduce content overlap. Second, I added some subcategories to the list of psychologically maltreating parental behaviors identified by the OSPRC. This was done in an attempt to more comprehensively define the domain of psychological maltreatment.

The first modification made to the OSPRC subcategories involved dividing the apparently heterogenous subcategory of "Terrorizing" into three more homogenous forms. The new subcategories created are: (a) *Verbal Terrorism*, which is defined for the purposes of this study as verbal threats directed toward the child of harm or of other severely negative or frightening consequences; (b) *Physical Terrorism*, which

consists of two forms of physically threatening behaviors, namely those that occur with physical, verbal, or symbolic reference to the child but that do not involve physical contact with him or her (e.g., using physically threatening gestures, striking an object while emotionally engaging the child), and those that do involve physical contact with the child, but are very low-risk in terms of immediate or lasting physical harm to the child and, additionally, have emotional versus physical harm at their core (e.g., holding a child down as a means of aggravating him or her; touching or handling a child in a rough way), and; (c) *Witness to Family Violence*, involving violent parental behaviors (including verbal violence and threats of harm) directed toward a person or object other than the child, but without physical, verbal, or symbolic reference to the child.

Acts of physical assault directed toward the child, also included by the OSPRC within the "Terrorizing" domain were conceptualized more specifically in the present study as physically abusive and were included in a separate Physical Abuse questionnaire. This latter category identifies assaultive acts which result in some physical, and generally observable, harm to the child. The rationale for dividing the "Terrorizing" subcategory into these smaller components is that each component appears to be qualitatively different, at least in level of threat

posed to the child. Although it is likely that some parents who engage in one of these subforms of "Terrorizing" also engage in one or more of the others, this is not necessarily the case. More importantly, because of the ostensibly different level of threat to the child inherent in each, it seems reasonable to expect that psychological consequences for the child may differ depending on which of these subforms, or combinations of subforms, the child experiences.

A similar modification was made to the OSPRC "Exploiting" subcategory for the purposes of this study. Specifically, the sexual component was removed from this subcategory in order to separate behaviors that seemed qualitatively different, both in nature and potential for harm to the child. Thus, the subcategory was renamed to *Exploiting (Nonsexual)*. I classified sexually exploiting parental behaviors as sexually abusive, and included these within a Sexual Abuse questionnaire, which will be described later.

Finally, I identified three subcategories of Psychological Maltreatment that I believe are not adequately represented by the OSPRC domains, yet I judge to be important and distinct enough in nature to warrant representation as viable subcategories. The first of these, *Unreliable and Inconsistent Care* is represented to some degree in the Baily and Baily (1986) project by the statement, "The parent provides no

stability or security for the child inasmuch as expectations are unpredictable and change frequently, resulting in rigid requirements at one time to indifference to behavioral standards later" (p. 20). Briere (1992a), who named this subcategory "Unreliable and Inconsistent Parenting," described it as follows: "Contradictory and ambivalent demands are made of the child, parental support or caregiving is inconsistent and unreliable, familial stability is denied to her or him" (p. 8). This latter definition, because it is congruent with my conceptualization of the domain, will be the one employed for purposes of this study.

Another subcategory of Psychological Maltreatment created is *Controlling or Stifling Independence*, which I defined as follows:

> The parent exerts excessive control over the child's behaviors, thoughts, opinions, and decisions. Such control extends to the point of interfering with the child's attempts to perform tasks, to act independently, and to establish and maintain relationships with others.

This subcategory is represented to some degree in the Baily and Baily (1986) study by the statement, "The parent does not permit the child autonomy or independent learning" (p. 17).

Next, a general subcategory of *Physical Neglect* was created, which is defined here in the following manner:

> The child's basic physical needs are not met adequately by a parent who has the ability or resources to do so. The subcategory is intended to identify situations in which parents were disinterested or negligent in attending to the child's needs, as opposed to situations in which parents were unable to provide adequate care due to financial hardship.

In total, 12 subcategories of psychological maltreating parental behaviors were identified for use in the current study. These are presented in Table 1 along with definitions employed for each.

Once the Psychological Maltreatment subcategories were determined, I created large pools of items describing various parental behaviors in an attempt to represent the hypothetical construct of each subcategory. A rational-intuitive method was employed as the primary approach at this stage, and was based upon a combination of examples and definitions provided by the literature, as well as my clinical experience.

Items for all subcategories were designed to be asked of subjects following the stem, "Before you were 18, how often did one or more of your parental figures...". Parental figures are defined in the instructions

Table 1

Subcategories of Psychological Maltreatment Used in the Present Study[a]

1. *Rejecting*: active expressions of rejection, as opposed to passively ignoring a child (e.g., scapegoating, actively refusing to help a child);

2. *Degrading*: actions that depreciate the child, including verbal derogation (e.g., insulting, publicly humiliating);

3. *Isolating*: acts that separate the child from others (e.g., refusing to allow interactions with others outside the family);

4. *Corrupting*: acts that teach or encourage antisocial behaviors or orientations, or that encourage the child to develop orientations that are destructive to himself or herself (e.g., encouraging criminal behavior or substance abuse by the child, inculcating racist values);

5. *Denying Emotional Responsiveness*: acts of omission in which the caregiver fails to provide the sensitive, responsive caregiving necessary to facilitate healthy social and emotional development; the caregiver is detached, and interacts with the child only when necessary (e.g., ignoring a child's attempts to interact);

6. *Exploiting (Nonsexual)*: situations in which a child is used for advantage or profit (other than sexually) (e.g., keeping a child at home in the role of a servant or surrogate parent in lieu of school attendance);

7. *Verbal Terrorism*: verbal threats directed toward the child of harm or of other severely negative or frightening consequences (e.g., threatening to physically hurt or kill a child);

8. *Physical Terrorism*: consists of two forms of physically threatening behaviors, namely (a) those that occur with physical, verbal, or symbolic reference to the child but that do not involve physical contact with him or her (e.g., using physically threatening gestures, striking an object while emotionally engaging the child), and (b) those that do involve physical contact with the child, but are very low-risk in terms of immediate or lasting physical harm to the child, and additionally, have emotional versus physical harm at their core (e.g., holding a child down as a means of aggravating him or her; touching or handling a child in a rough way);

Table 1 (Continued)

9. *Witness to Family Violence*: involves violent parental behaviors (including verbal violence and threats of harm) directed toward a person or object other than the child, but without specific physical, verbal, or symbolic reference to the child (e.g., physically hurting a family member other than the child, when the child is present);

10. *Unreliable and Inconsistent Care*: Contradictory and ambivalent demands are made of the child, parental support or caregiving is inconsistent and unreliable, familial stability is denied to her or him (e.g., communicating unpredictable and changing expectations of the child);

11. *Controlling or Stifling Independence*: The parent exerts excessive control over the child's behaviors, thoughts, opinions, and decisions. Such control extends to the point of interfering with the child's attempts to perform tasks, to act independently, and to establish and maintain relationships with others (e.g., interfering in a child's relationships with other family members, checking up on a child without good reason);

12. *Physical Neglect*: The child's basic physical needs are not met adequately by a parent who has the ability or resources to do so. The subcategory is intended to identify situations in which parents were disinterested or negligent in attending to the child's needs, as opposed to situations in which parents were unable to provide adequate care due to financial hardship (e.g., failing to provide proper nourishment for the child when the means to do so are available, failing to care for the child's injuries when he or she is physically hurt).

[a]Subcategories 1 through 5 are the "original" forms described by Hart *et al.* (1987). The definitions presented for these are adapted from McGee & Wolfe (1991a);
Subcategory 6 represents the original subcategory described by Hart *et al.* (1987) but with the sexual component removed;
Subcategories 7 through 9 were created by the present investigator by dividing the "Terrorism" subcategory described by Hart *et al.* (1987). The definitions provided for these new subcategories were generated by the present investigator;
The definition provided for subcategory 10 is from Briere (1992a); and the definitions provided for subcategories 11 and 12 are were generated by the present investigator.

for the questionnaire as consisting of "parents, step-parents, foster-parents, or other adults who were in charge of you as a child or adolescent." In the acknowledgement that older siblings or other older relatives routinely provide supervision or care for children in some families, the questionnaire instructions state that these persons may also be considered parental figures in such cases. The instructions state further that, for a given respondent, in the case where more than one parental figure behaved in a way that a given item describes, the respondent should answer for the parental figure who behaved that way most often.

Although it is clear that maltreatment by persons other than a parent figure may be harmful to children, the decision to focus on parental behavior for the purpose of this study was based on a number of practical considerations. First, requiring subjects to report about maltreatment they experienced by "anyone" during their childhoods would likely yield results that would be too nonspecific to allow comparison with findings from other studies. Second, a comprehensive assessment of maltreatment behaviors experienced by a number of discrete categories of perpetrators (e.g., parents, teachers, babysitters, strangers) would result in a questionnaire that would be unwieldy for subjects to complete at this stage of questionnaire development. The

decision to focus on parental behaviors, then, was based on the rationale that, among the individuals in a child's life, parental figures normally have the greatest amount of contact with, and influence on their children. It is also well-accepted that parents are charged with the responsibility of caring for their children. As a result, parental figures likely wield the greatest potential to harm their children emotionally, should they maltreat them. The ongoing and relatively close nature of the contact between parents and children is especially important with respect to psychological maltreatment, given that this form of maltreatment is more likely than sexual and even physical forms to be defined by the occurrence of repeated acts rather than single or isolated ones.

An additional issue with respect to assessment of childhood maltreatment in the present study concerns the age range about which subjects were asked to report. Although different consequences might occur for children depending on the age or developmental stage at which they experience maltreatment (e.g., Garbarino *et al.*, 1986), the assessment of such differences was beyond the scope of the present study. Thus, the age range of "before age 18" was used in order to obtain a broad assessment of parental maltreatment that may have occurred at any point prior to adulthood.

Operating from the view that childhood maltreatment experiences should be assessed as continuous, rather than dichotomous variables, the scale provided for subjects' responses to items is characterized by the following five weighted points: *Never*, *Once or Twice*, *Sometimes*, *Often*, and *Very Often*. The decision was made to use subjectively relative terms such as *Sometimes* and *Often* as opposed to using more discrete terms, such as *3-5 times* or *More than 20 times*, which have been used in other studies of this nature (e.g., Briere & Runtz, 1989; Vissing *et al.*, 1991) for two main reasons. First, given the wide range of behaviors that were assessed in the present study, the occurrence of many of these would be difficult, if not impossible, for subjects to quantify. In addition, the present study is concerned with parental behaviors that a child might have experienced over a number of years, as opposed to only the previous year or the "worst year," for example, which are the time periods targeted by researchers using the more discrete terms. The respondent's subjective perception of how frequently particular parental behaviors occurred, furthermore, might be much more relevant to supposed consequences of such behaviors than if this determination was made by others.

When generating examples for each of the subcategories of childhood maltreatment, I made a concerted effort to keep boundaries

between these clear and to eliminate overlap. This task was more problematic for some subcategories than others. The problems inherent in such a task are evident in a recent effort by Hart and Brassard (1991) to develop measures of psychological maltreatment for use with children, based on the seven subtypes identified by the OSPRC. In this study the authors created 10 items to illustrate each subtype and then submitted these to 10 mental health professionals to sort into any categories that made sense (i.e., the categories were not provided to the sorters at this stage of the task). From the results of this sorting procedure, the investigators concluded that *Exploiting* and *Corrupting* subcategories could not be adequately discriminated from one another, and combined these into a single subcategory. In addition, in response to overlap they observed among observers' categorization of *Rejecting*, *Degrading*, and *Denying Emotional Responsiveness* items, these researchers eliminated the *Rejecting* subcategory and enhanced the "hostile active rejection" and "putting down" concepts inherent in the *Degrading* subcategory, thus renaming it to *Spurning*. Although these results might be taken as evidence that it is not possible to distinguish empirically among a large number of psychologically maltreating parental behaviors, an alternative explanation is that items created for the Hart and Brassard (1991) study suffered from content overlap.

With these considerations in mind, I took particular care in choosing items to represent the subcategories that were problematic in the Hart and Brassard (1991) study. For example, an attempt was made to keep the distinction between *Rejecting* and *Denying Emotional Responsiveness* subcategories clear in terms of the active and passive natures, respectively, of each. In addition, it is likely that some of the problems Hart and Brassard encountered with overlap of content among the subcategories will not occur in the present study because of efforts made to attain homogeneity of subcategories. For example, removing the sexual component present in the OSPRC subcategories of *Exploiting* and *Corrupting* (and placing it in the Sexual Abuse category) might eliminate the overlap problem Hart and Brassard encountered between *Exploiting* and *Corrupting*.

It was anticipated, nonetheless, that difficulties in distinguishing among some maltreatment subcategories might also occur in the present research project. One such possibility was that, because the distinction between *Rejecting* and *Degrading* is a somewhat subtle one in comparison with distinctions among other subcategories, it may tend to reflect a difference in severity of the same type of behavior (i.e., different points on a continuum), as opposed to qualitatively different behaviors. Another problem is that, because all forms of Psychological

Maltreatment assessed in this study would not be expected to be highly prevalent in the childhood histories of university students, low variability in some or all of these measures would be expected to compromise the ability for statistical procedures to discriminate among the various subcategories.

Physical Abuse Questionnaire

Consistent with my intent to assess a broad range of parental behaviors thought to constitute child maltreatment, a variety of items describing physically abusive parental behaviors were generated for inclusion in a Physical Abuse Questionnaire. Some of these items were adapted from an expanded (8-item) version used by Runtz (1992) of a questionnaire created by Briere and Runtz (1988). Most of the items comprising the present Physical Abuse Questionnaire were created for this study, however, based on my review of examples in the maltreatment literature and my clinical experience. Following the format established for the Psychological Maltreatment Questionnaire, items comprising the Physical Abuse Questionnaire were assessed in terms of parental behaviors experienced prior to age 18 and on the same 5-point weighted scale of frequency of occurrence.

Sexual Abuse Questionnaire

Some of the items created for the Sexual Abuse Questionnaire were adapted from a 10-item questionnaire created by Finkelhor (1979). Although the Finkelhor items are often used to assess sexual abuse as a unitary construct, it is clear the items fall into two main subcategories--those involving physical contact of the perpetrator with the child (e.g., "Another person fondling you in a sexual way"), and those ostensibly not involving such contact (e.g., "Another person showing his/her sex organs to you"). I consider this an important distinction, given the abundant research evidence that negative psychological consequences of sexual abuse tend to be more highly associated with genital contact (Wyatt & Powell, 1988). A further distinction can be made among the non-contact sexually abusive behaviors. Specifically, of the three non-contact items appearing in the Finkelhor questionnaire, one is presumably of a primarily verbal nature (e.g., "An invitation or request to do something sexual"), whereas the other two clearly involve additional physical cues (i.e., nudity), which might increase the level of threat to the child. It seems reasonable, given the findings concerning the greater negative consequences associated with genital contact, that these other forms of parental sexually abusive behaviors may be different enough in quality that different "effects" of these forms might be discernable.

Thus, in the present study, I made these distinctions by creating three subcategories of sexual abuse that was perpetrated by a parental figure. These subcategories, which represent a supposed hierarchy of severity in terms of hypothesized outcome for the victim are as follows: (a) *Sexual Harassment*; (b) *Sexual Abuse Without Physical Contact*; and (c) *Sexual Abuse With Physical Contact*. As in the case of the Physical Abuse Questionnaire, many of the items comprising the Sexual Abuse Questionnaire were created for this study, based on my clinical experience and examples from the literature.

The rationale provided by Russell (1986) for her decision to exclude distressing non-contact experiences from the definition of incestuous abuse in her comprehensive study is relevant to the present concern. While acknowledging that non-contact incestuous experiences can be traumatizing, Russell argued that such a definition would "also include many incidences of little or no significance...[and] would therefore serve to dilute our findings about incestuous abuse" (p. 51). The inclusion of non-contact sexual experiences in the present study, however, but in separate subcategories, allowed for examination of their relationships with other forms of maltreatment and with measures of subjects' psychological functioning.

A final point with respect to assessment of childhood sexual abuse experiences is that, compared with most psychologically and physically maltreating behaviors, a smaller frequency, and even a single act, of (contact) sexual abuse is likely to be more traumatizing to a child. This is because of the greater degree of physical and psychic violation involved, as well as the greater social stigma and secrecy typically associated with sexual abuse. Therefore, despite the focus in the present study on *parental* maltreatment, I decided that the demonstrated effects of "contact" sexually maltreating behaviors that are perpetrated by persons other than a parental figure are important enough that the assessment of such maltreatment is crucial in the present study.

With this consideration in mind, a subcategory of *Sexual Abuse With Physical Contact--Non-Parental*, was created and is comprised of items identical to those comprising the Parental version of this subcategory. The instructions for the Non-parental version differ from those for the parental maltreatment questionnaires. Specifically, respondents are asked to indicate how often they experienced each behavior by a person who was not a parental figure, but in either of two situations. The first situation involves the case where the person clearly did not want the behavior to occur, and the subject is thus asked to answer for a person (i.e., perpetrator) of any age. The second situation,

in recognition of the fact that children might be convinced to participate, or might even want to participate in a sexual act with another person, concerns cases where the child *may have wanted* the behavior to occur. In this latter case, the subject is asked to answer for a person who was 5 or more years older than the subject. These criteria are essentially those used by Russell (1986) and, though somewhat different from those suggested by Finkelhor (1979), are congruent with my own conceptualization of sexual abuse.

Like the Psychological Maltreatment Questionnaire and the Physical Abuse Questionnaire, items comprising the subcategories of the Sexual Abuse Questionnaire were assessed in terms of behaviors (parental or non-parental depending on the version, as outlined above) experienced prior to age 18 on the same 5-point weighted scale of frequency of occurrence.

Review of questionnaire items

After item pools were created to represent each of the subcategories comprising the major categories of Psychological Maltreatment, Physical Abuse, and Sexual Abuse, this pool was submitted to a number of "reviewers" for their comments and critiques. A convenience sample of ten clinical psychologists known to the present author served as reviewers at various points in this process. Six of the

reviewers had full-time university appointments within Clinical Psychology programs; four of these six were based on campus and two were hospital-based within psychiatry departments. All of these university faculty, except one, provided direct clinical service as a requirement of their appointments. Four of them also conducted part-time clinical private practices.

Of the remaining four reviewers, two were employed within health-care settings. One of these was the director in a private hospital of a clinic that provides service to sexually abused children, and the other was the director in a community health centre of a program that specializes in providing crisis and other counselling services to adult clients, many of whom had experienced childhood maltreatment. Finally, two reviewers were self-employed in clinical practice on a full-time basis.

Virtually all of the reviewers have clinical experience in providing therapy to children who experienced maltreatment and/or to adults who experienced maltreatment during their childhoods. Many of the reviewers have considerable experience in treating either or both of these populations, and some of them have also published extensively in the child maltreatment literature.

First review

Two formal phases of review were employed. In the first, the original item pool was submitted to five of the clinicians for their comments in a number of areas. These areas concerned primarily item clarity and construct validity (i.e., the extent to which items in each subcategory served as adequate examples of that subcategory). Definitions of each subcategory were provided to reviewers to assist them in this task. The definitions provided to reviewers for the domains derived from those identified by the OSPRC were those definitions reported by Hart *et al.* (1987). The definitions provided to reviewers for domains identified by the present author were those reported above in the present manuscript. Reviewers were also asked to make suggestions concerning items they believed should be added, deleted, or combined within a particular subcategory. Finally, they were asked to identify the "better" items among the many presented to them for each subcategory.

Following this initial review procedure, I collected reviewers' comments and utilized these to create a second draft of questionnaire items. This revised draft consisted of a smaller number of items, with between 14 and 19 items in each of the 12 Psychological Maltreatment subcategories, as well as in the Physical Abuse category. Unlike the other categories, almost all of the 38 items appearing in the original draft

of the Sexual Abuse category were judged by reviewers to be important assessment items; only 3 items from the *Contact* subcategory were deleted and none were deleted from the *Harassment* and *Without Contact* subcategories.

Second review

The next phase of review involved submitting this revised draft of items to nine of the reviewers. Four of these reviewers had reviewed the first draft and the remaining five had not. Only one clinician who reviewed the first draft did not review the second. Instructions to reviewers for this second review were essentially the same as those for the first. In addition, acting on the belief that a final questionnaire consisting of 14 items in each subcategory would be adequate to tap the general constructs of the Psychological Maltreatment, as well as the Physical Abuse domains, I instructed reviewers to select the 14 better items within each subcategory. In some instances, "better" items were achieved by combining some items.

Final review

In the last phase of questionnaire construction, I utilized both reviewer comments and my understanding of the domain constructs to create a final draft. Because of the difficulty encountered in deciding upon 14 better items in all Psychological Maltreatment subcategories, the

final draft consisted of from between 14 and 16 items for each subcategory.

This resulting questionnaire draft was reviewed by nine of the ten reviewers as a "final check" before administering the questionnaire to subjects. At this stage only minor sentence structure changes were made to a very small number of items.

The Present Study

Measures of Childhood Maltreatment

Psychological Maltreatment Questionnaire

The final version of the Psychological Maltreatment Questionnaire created for this study consists of 177 items comprising 12 subcategories. These subcategories are as follows: (1) *Rejecting* (16 items); (2) *Degrading* (15 items); (3) *Isolating* (14 items); (4) *Corrupting* (15 items); (5) *Denying Emotional Responsiveness* (15 items); (6) *Exploiting (Nonsexual)* (14 items); (7) *Verbal Terrorism* (14 items); (8) *Physical Terrorism* (15 items); (9) *Witness to Family Violence* (14 items); (10) *Unreliable and Inconsistent Care* (15 items); (11) *Controlling or Stifling Independence* (16 items); and (12) *Physical Neglect* (14 items).

Physical Abuse Questionnaire

The final version of the Physical Abuse Questionnaire consists of 16 items.

Sexual Abuse Questionnaire

The final review version of the Sexual Abuse Questionnaire consists of 35 items comprising the subcategories of: (1) *Sexual Harassment* (8 items); (2) *Sexual Abuse Without Physical Contact* (7 items); and (3) *Sexual Abuse With Physical Contact--Parental* (10 items). A final subcategory of (4) *Sexual Abuse With Physical Contact--Non-Parental* (10 items) is comprised of items identical to those comprising the Parental version of this subcategory--only the instructions for these two subcategories differ.

Measures of Psychological Functioning

Brief Symptom Inventory (BSI)

The BSI is a 53-item self-report psychological symptom scale which is a shortened version of the widely used SCL-90-R (Derogatis, Lipman, & Covi, 1973; Derogatis, 1977). Subjects respond to items on a 5-point scale of symptom severity, and approximately 10 minutes are required for completion of the scale. Although nine primary symptom dimensions and three global indices of distress are assessed by the BSI, the Global Severity Index (GSI), which is a summative measure of all items, is considered the best indicator of an individual's current distress level, and its use is recommended in most situations where a single summary measure is desired (Derogatis & Melisaratos, 1983).

The internal consistency reliabilities for the BSI were established with a sample of 1002 out-patients and revealed alpha coefficients for all nine dimensions ranging from .71 to .85. Test-retest reliability data, generated from a sample of 60 non-patient subjects who were tested at a 2-week interval ranged from .68 to .91 on the nine dimensions. The stability coefficient reported for the GSI with this sample was .90, indicating that the BSI is a reliable measure over time. Convergent validity for the BSI with the MMPI has also been demonstrated (Derogatis & Melisaratos, 1983).

Norms on the BSI for a college student sample have been reported by Cochran and Hale (1985). In a sample of 143 students drawn from both upper- and lower-division courses, the mean score these researchers obtained for females on the GSI measure was .71 (SD = .42) and the mean score obtained for males was .84 (SD = .55). The results of the Cochran and Hale study indicate that college students tend to report higher levels of psychological distress than so-called "normal" adults and the authors caution that appropriate norms should be used by those studying a college population.

Trauma Symptom Checklist-40 (TSC-40)

The TSC-40 is a 40-item self-report measure that requires subjects to respond on a 4-point scale ranging from *Never* to *Very Often* the

frequency with which various forms of trauma-related symptoms were experienced during the previous two months. The TSC-40 is a recently expanded version of the TSC-33, which was developed by Briere and Runtz (1989). The TSC-40 differs from its predecessor in that it includes a 5-item Sexual Problems subscale and two items that were added to increase reliability and content validity of other subscales.

Because the TSC-40 is a relatively new measure, however, norms have not been well-established. In a national stratified sample of 2,833 professional women, internal consistency alpha reliabilities for the subscales averaged .69 with a value of .90 for the total TSC-40 (Elliott & Briere, 1991). Thirty six of the items were found to discriminate between women in the Elliott and Briere study who reported having been sexually abused and those who reported that they had not been sexually abused. The mean score obtained on the TSC-40 by women in that study was 22.2 (SD = 11.4). Unfortunately, norms for the TSC-40 are not yet available for males or for a university student sample.

Coopersmith Self-Esteem Inventory (CSEI)

The Adult Form of the CSEI is a 25-item measure of self-appraisal. Subjects respond to the items on a 2-point scale according to whether the item describes a characteristic that is *Like Me* or *Unlike Me*, and the scale is intended to yield a summative score of general self-

esteem. The items comprising the Adult Form of this scale were adapted from a School Short Form of the original 50-item School Form that is used with children aged 8 through 15. The items comprising the Adult Form are essentially the same as their counterparts in the School Short Form, except that slight wording changes were made to make the items more appropriate for use with adults. Coopersmith (1990) reported that the correlation between total scores on the Adult Form and the School Short Form exceeds .80 for three samples of high school and college students.

Most of the research conducted with the CSEI has been with respect to the School Form and, unfortunately, few studies reporting psychometric or normative data for the Adult Form are available. Given the high correlation between the Adult Form and the School Short Form, however, it is a reasonable assumption that the findings with respect to one form are applicable to the other.

Coopersmith (1990) reported adequate internal consistency for the School Form with Kuder-Richardson (KR20) reliability estimates ranging from .80 to .92. KR20s for the School Short Form, based on a sample of 103 college students were .71 for females and .74 for males (Bedeian, Geagud, & Zmud, 1977). Test-retest reliability estimates for the School

Short Form based on this sample of college students are .82 for females and .80 for males.

Alpha reliability coefficients for the Adult Form based on a sample of 226 college students who attended either a community college or a state university in Northern California range from .78 to .85 (Coopersmith, 1990). Normative data for the Adult Form based on this same sample were not reported for females and males separately, rather a mean total score of 71.7 (SD = 18.8) was reported for all students in the 20 to 34 age range.

Measure of Social Desirability

Although the Child Form of the CSEI contains items that constitute a Lie Scale, the Adult Form of this measure does not. In addition to the general advisability of including such a measure in a study that involves self-report by subjects (e.g., DeVellis, 1991), I considered such a measure to be of crucial importance in the present study where subjects were asked to respond to items of an extremely sensitive nature (e.g., items comprising the childhood maltreatment questionnaires). A measure of social desirability allows the investigator to assess how strongly subjects' responses might have been influenced by social desirability; if important measures are found to correlate

substantially with a social desirability scale, steps could be taken to control statistically for these influences.

MMPI-2 L Scale

The MMPI-2 L Scale (Hathaway & McKinley, 1983) was chosen as an acceptable measure of social desirability for use in this study because of its good psychometric properties and short administration time. In addition, because its 2-point scale is compatible with that of the CSEI, it was possible to combine items from the two scales randomly. The MMPI-2 L Scale is a 15-item measure "designed to detect [by the observation of high scores] rather unsophisticated and naive attempts on the part of test subjects to present themselves in an overly favorable light" (Graham, 1990, p. 5). High scores on this measure may also indicate defensiveness, denial, or confusion on the part of subjects and any of these may suggest sufficient reason to question a subject's responses to other questionnaire items that correlate highly with this measure.

Alpha reliability estimates for the L Scale for females and males based on results from the MMPI-2 normative samples are .57 and .62, respectively. Test-retest coefficients for a one week interval are .81 for females and .77 for males.

In the present study, Pearson product-moment correlations were calculated for the total L Scale score with total scores for the major maltreatment categories and with the total scores for the BSI and the CSEI. The data were examined for indications that social desirability is a factor in the way subjects report frequency of occurrence of maltreatment experiences in childhood, and in the way they respond to measures of psychological functioning. Based on results of previous studies utilizing such a measure (e.g., Runtz, 1992), however, social desirability was not expected to correlate significantly with any of the other critical measures in this study.

Demographic and Other "Background" Variables

Demographic and background measures assessed in the present study are of two main types, namely those that were used to describe the sample and those that the investigator believes could have been important with respect to the primary measures of interest. Some variables, such as *Sex* and *Social Class* fall within both categories.

Descriptive Background Variables

The variables used to describe the sample include those such as age, sex, marital status, current living arrangements, year in university, and family of origin characteristics (e.g., number of siblings, age position in the family, size of the community in which the person was

raised, family income, parental education level and occupation, primary caretakers of the respondent as a child). Of these descriptive background variables, nine (i.e., sex, age, size of family of origin, size of community in which participant was raised, income of family of origin, mother's education level, father's education level, mother's social class, and father's social class) that were thought to be potentially important to the primary measures of interest were included in Pearson correlational analyses with the primary measures and the results were examined for evidence of significant relationships. Parental social class was assessed in this study according to a socioeconomic index developed by Boyd (1986) of Canadian Census occupational titles. This index was based on the income and educational characteristics of all members of the labor force as opposed to characteristics of men only or women only.

Variables Indicative of Significant Personal Loss in Childhood

Because of the possible importance of a history of personal loss in childhood to adult psychological symptom status and self-esteem, an item was included with the background variables that assessed a number of possible losses that respondents may have experienced prior to age 18. These losses include separation and/or divorce of parents, desertion of the family by a parent, death of parents or other close family members, and the respondent's adoption or placement in foster care. Subjects were

asked to check as many of the 12 loss categories that applied to them and their responses were summed to yield an overall score.

Variables Indicative of Traumatic Experiences in Childhood

A final item included within the background variables assessed 7 types of events that the respondent might have experienced in childhood and which would be expected to be upsetting or traumatic for most people. These include such events as serious accidents and natural disasters. Respondents were asked to indicate which, if any, of these events they experienced and responses were summed to obtain an overall score.

Subjects and Procedure

Subjects were 1,210 students enroled in Introductory Psychology classes at the University of Manitoba. Students were recruited through procedures governing the use of the Introductory Psychology subject pool and received credit toward course requirements for their participation in the study. Upon receiving permission from each Introductory Psychology instructor, I addressed several class sections and provided a brief description of the task required of participants (i.e., completion of a questionnaire about the participant's family experiences, and which includes questions of a personal nature). Interested students were then

asked to sign up for the study and were given an appointment reminder slip which indicated the date, time, and location of the study.

Subjects completed their questionnaires in groups of approximately 100, but care was taken to ensure that each subject was afforded adequate privacy. This was accomplished by the use of a large modern conference theatre where subjects completed the questionnaires. Seating in the lecture hall was arranged so that subjects were separated from each other by at least one empty chair on their left- and right-hand sides. The theatre contains long continuous conference tables which allowed subjects to spread out their materials and work comfortably.

When students arrived to participate in the study, each was given a consent form, which he or she was asked to sign before beginning to answer the questionnaire. The consent form described the nature of the questionnaire and informed subjects that they had the right not to participate in the study and that, if they chose to leave the study at any time, they would still receive credit for participation. The consent forms were collected from participants separately from the questionnaires so that their names could not be linked with their questionnaires. Participants were instructed clearly not to place their names or other identifying data on the questionnaires.

Participants were allowed to leave the conference theatre to take a short break (if required) during questionnaire completion, but they were asked to leave and return quietly, so as not to disturb others. Washroom facilities, a water fountain, and pay telephones were available immediately outside the conference theatre. Participants were allotted 2 hours to complete their questionnaires, but most required between one and one-and-one-half hours. No participants required more than the 2 hours allotted.

When each subject turned in her or his questionnaire (completed or not) he or she was given a debriefing form that identified the aims of the study. Because of the sensitive nature of the items comprising the questionnaire, it was anticipated that some subjects could experience concerns about issues such as confidentiality, or that some might even experience emotional distress as a result of thinking about some of the questionnaire items. Thus, the debriefing form also provided a phone number at the University of Manitoba where I and my supervisor could be reached in the case that subjects had any questions or concerns about participation in the study. In addition, the form encouraged subjects to call if they wished to receive a written copy of study results once these became available. Finally, the debriefing form provided a list of counselling resources available to subjects, in the case that troubling

thoughts or feelings related to childhood experiences arose as a result of their participation in the study.

The list of counselling resources offered to subjects included free services available within the University of Manitoba (i.e., Student Counselling Services and the Psychological Service Centre), as well as external agencies offering either free services or services with a fee structure based upon a sliding scale of client income. Included in the free service resources were two 24-hour crisis lines (i.e., one which provides general crisis counselling services, and one which provides services related to sexual assault crises). At least one of the counselling agencies listed offers services in either of the two official Federal languages. At least one other agency (i.e., the one offering telephone and in-person crisis counselling) routinely accesses the Language Bank of Winnipeg for interpreter services if these are requested by the client. Prior to commencement of the study, I contacted all agencies listed on the debriefing form to inform the appropriate employee at each (e.g., program director, intake worker) that the resource was offered to subjects, and to provide brief descriptive information about the study.

I also made myself available to (a) meet personally (under the supervision of my advisor) with any subject requesting a meeting to discuss the study itself or concerns or reactions she or he may have as a

result of participating, and (b) assist subjects wishing to access counselling resources. It is noted that, based upon the experience of previous investigators conducting similar research at the University of Manitoba, serious concerns or severe emotional reactions on the part of subjects were not expected to occur. In fact, no participants in the present study requested a meeting with myself or my supervisor, and only one requested assistance with obtaining counselling services. Several participants expressed interest in obtaining a copy of the study results, however, and in learning more about the study or research area.

RESULTS

Subject Characteristics

Of the 1,210 subjects who agreed to participate in this study, none chose to withdraw once the study commenced. One hundred twenty five, however, did not provide complete data for the items of primary interest. Visual examination of the data revealed that, of these latter subjects, thirty one either had stopped filling out the questionnaire between one-half to three-quarters through to completion or, alternatively, had left large sections of the questionnaire blank. It was determined that these subjects did not provide sufficient data for results of analyses to be meaningful and, therefore, their data were omitted. The remaining 94 subjects who did not provide complete data had failed to respond to somewhere between one and nine items from the entire questionnaire. Careful examination of data provided by these subjects revealed that the data were missing randomly throughout the questionnaires and in no cases did the number of missing items exceed three for a given scale used in the analyses--in most cases only one or two items were blank on the entire questionnaire. Therefore data from these subjects were "reclaimed" by the conservative method (Tabachnick & Fidell, 1989) of inserting the mean value provided for the missing item from results of analyses of data from subjects who provided

complete data for that item. In all cases, the mean values inserted for missing data were provided by data from same-sex subjects.

The results reported, therefore, are with respect to the 1,179 participants who either provided complete data (1,085), or had item means inserted for a small number of missing data points (94). Six hundred fifty one (55%) of these subjects were female and 528 (45%) were male. The age of participants ranged from 17 to 49, with a mean of 19.5 years and median of 18 years. Seventy six percent of participants were enroled in the Faculty of Arts (64%) or another non-technical faculty (11%), such as Social Work. The remaining 25% were enroled in the faculty of Science (22%), or in another technical faculty (3%), such as Engineering. Eighty two percent of subjects were first year students, 13% were in their second year, and the remaining 5% were in their third or greater year of university studies. Most subjects had never been married (94%) and 70% lived with one or more of their parents at the time they completed the questionnaire. Ninety four percent of subjects had spent most, if not all, of their childhoods in North America, and 96% spoke English as a first or primary language.

Ninety eight percent of participants reported having had a mother figure and 91% reported having had a father figure for most or all of their childhoods. Eighty six percent were raised with both a birth

mother and a birth father at least to age 13, and 80% lived with both birth parents at least to age 18. Only 6% of participants had been raised by persons other than one or both of their birth parents.

The modal subject was raised in a family that consisted of two adults and two children. Eighty nine percent of subjects were raised in families that had a combined annual income, before taxes, of greater than $20,000, 66% were raised in families with incomes greater than $35,000, and roughly 39% were raised in families that earned in excess of $50,000 per annum.

In the homes in which subjects were raised, ninety four percent of fathers were employed full-time and 4.5% worked part-time. Whereas 26% of mothers did not work outside of the home, 43% were employed full-time and 31% were employed part-time. Seventy five percent of mothers and seventy three percent of fathers had completed high school and, additionally, 20% of mothers and 29% of fathers held university degrees.

Data Characteristics

Prior to conducting the main analyses, several procedures were followed to screen the data for normality, linearity, and homoscedasticity of the variables and for the presence of univariate and multivariate outliers. As might be expected in a university student sample, all

maltreatment variables were found to have severe positive skews, the result of a large number of students having endorsed the lower end of the scale of frequency of occurrence of maltreatment.

Although many multivariate statistical procedures and tests are thought to be robust to departures from normality, especially with large samples, several writers (e.g., Tabachnick & Fidell, 1989) recommend transformation of skewed variables in order to reduce the degree of skewness and have the data better fit the assumption of multivariate normality. Thus, all maltreatment variables were transformed by multiplying each by log 10, a procedure recommended by Tabachnick and Fidell to reduce severe positive skew. Although the variables used to assess psychological functioning, that is, the Global Severity Index of the BSI, the CSEI, and the TSC-40, also demonstrated skewed distributions (positive for the BSI and TSC-40 and negative for the CSEI), these variables were not transformed. This is because the skewness observed for each of these variables was minor and, as such, the benefit obtained by transformation would likely be negligible, especially when weighed against the disadvantage that results of analyses using transformations of these variables might not be readily comparable to studies in which these variables were left untransformed.

Once maltreatment variables were transformed, relationships among variables were determined to be linear and homoscedastic by examination of residuals plots and bivariate scatterplots between pairs of variables. Additionally, the data were screened for the presence of univariate outliers by the examination of standardized scores for each variable (i.e., standardized scores in excess of ± 3.00), and for multivariate outliers by the computation of Mahalanobis distance for each case from the centroid of means of all variables (i.e., Mahalanobis distance chi square values greater than critical value at $\alpha = .001$). No cases were determined to be univariate or multivariate outliers by use of these procedures.

Childhood Maltreatment Questionnaires

Reliability Analyses and Frequencies

Reliability analyses were performed on items comprising each of the sub-categories of the Psychological Maltreatment Questionnaire and the Sexual Abuse Questionnaire, plus the single category Physical Abuse Questionnaire. Results from the reliability analyses were used to eliminate from the maltreatment subscales items that demonstrated poor correlation with other items in the same subscale, but only if these items were not considered critical to the content domain of the form of maltreatment the scale represented. The modified subscales, each

comprised of 10 items, except for *Sexual Harassment* and *Sexual Abuse Without Physical Contact* which were comprised of six items each, demonstrated substantial internal consistencies, with alpha coefficients ranging from .71 to .95. The alpha reliabilities for these reduced subcategories are presented in Table 2.

Psychological Maltreatment

Of the 12 Psychological Maltreatment subscales created for this study, all demonstrated high internal consistencies except for *Corrupting* and *Physical Neglect*, which evidenced moderate internal consistencies. Inspection of inter-item correlation coefficients for these latter two subscales revealed these values to be substantially lower than those observed for all other Psychological Maltreatment subscales. This appears to be due in large part to low variability in the items that comprise the *Corrupting* and *Physical Neglect* subscales, in turn the result of very low positive endorsement of some of these items by participants in the present sample. Despite low positive endorsement, these items were retained because they allowed a broader range of corrupting and neglecting behaviors to be assessed; in essence, removing the items that were poorly endorsed would result in subscales that were overly specific with respect to the domain of behaviors of interest. The implications of retaining these items are that results from analyses that

Table 2

Alpha Reliability Coefficients for the Final (Reduced) Versions of all Maltreatment Questionnaire Subscales[a]

Maltreatment Subscale	Alpha[b]	Total Items
PSYCHOLOGICAL MALTREATMENT		
Rejecting	.91	10
Degrading	.93	10
Isolating	.88	10
Corrupting	.71	10
Denying Emotional Responsiveness	.92	10
Exploiting (Nonsexual)	.83	10
Verbal Terrorism	.88	10
Physical Terrorism	.88	10
Witness to Violence	.82	10
Unreliable Care	.91	10
Controlling/Stifling Independence	.90	10
Physical Neglect	.72	10
PHYSICAL ABUSE	.89	10
SEXUAL ABUSE		
Harassment	.82	6
Non Contact	.83	6
Contact	.89	10
Non-parental	.95	10

[a]N = 1179
[b]Cronbach alpha coefficient

include these subscales should be viewed cautiously for the present sample.

Table 3 presents frequencies of subjects' responses to items comprising the Psychological Maltreatment items. In the interest of brevity, frequencies are not reported for each Psychological Maltreatment item; rather the frequencies reported for the weighted points of each subscale reflect the highest frequency of endorsement obtained by any one item from that subscale.

Physical Abuse

Of the 16 items that were created for the Physical Abuse Scale, 10 were retained to represent this form of maltreatment. The six items that were deleted demonstrated poor correlations with other items in this scale, largely because of very low positive endorsement of these items. This is not surprising, given that these items represent very severe forms of physical abuse (e.g., "Try to kill you") and would be expected to be relatively rare, especially in a student sample. Because these items might have some utility in assessing severe abuse among members of more diverse samples, however, they are conceptualized as comprising a Severe Physical Abuse Scale, which could be used in a subsequent study. Frequencies of subjects' endorsements of the items comprising the Physical Abuse and Severe Physical Abuse scales are presented in Table 4.

Table 3

Frequencies of Subjects' Endorsements of Psychological Maltreatment Items (by Subscale)[a]

Form of Psychological Maltreatment	Never		Once or Twice		Sometimes		Often		Very Often	
	f	(%)	f	(%)	f	(%)	f	(%)	f	(%)
Rejecting	215	(18.2)	383	(32.5)	356	(30.2)	131	(11.1)	94	(8.0)
Degrading	272	(23.1)	380	(32.2)	326	(27.7)	110	(9.3)	91	(7.7)
Isolating	166	(14.1)	396	(33.6)	389	(33.0)	145	(12.3)	83	(7.0)
Corrupting	705	(59.8)	266	(22.6)	138	(11.7)	33	(2.8)	37	(3.1)
Denying E. R.	222	(18.8)	407	(34.5)	338	(28.7)	124	(10.5)	88	(7.5)
Exploiting	280	(23.7)	430	(36.5)	270	(22.9)	111	(9.4)	88	(7.5)
Verbal Terrorism	60	(5.1)	253	(21.5)	513	(43.5)	205	(17.4)	148	(12.6)
Physical Terrorism	536	(45.5)	385	(32.7)	176	(14.9)	50	(4.2)	32	(2.7)
Witness to Violence	110	(9.3)	264	(22.4)	464	(39.4)	209	(17.7)	132	(11.2)
Unreliable Care	204	(17.3)	440	(37.3)	334	(28.3)	110	(9.3)	91	(7.7)
Controlling	59	(5.0)	305	(25.9)	419	(35.5)	222	(18.8)	174	(14.8)
Physical Neglect	543	(46.1)	282	(23.0)	197	(16.7)	80	(6.8)	77	(6.5)
Total[b]	7	(0.6)	72	(6.1)	353	(29.9)	342	(29.0)	405	(34.4)

[a]N = 1179
[b]All Psychological Maltreatment items considered together

Table 4

Frequencies of Subjects' Endorsements of Items Indicating Physical Abuse by a Parental Figure[a]

Item	Never		Once or Twice		Sometimes		Often		Very Often	
	f	(%)	f	(%)	f	(%)	f	(%)	f	(%)
Physical Abuse Scale										
Twist a limb	849	(72.0)	199	(16.9)	103	(8.7)	17	(1.4)	11	(.9)
Hit or slap you	750	(63.6)	291	(24.7)	100	(8.5)	27	(2.3)	11	(.9)
Pull your hair	896	(76.0)	194	(16.5)	70	(5.9)	10	(.8)	9	(.8)
Spank you hard	877	(75.2)	176	(14.9)	76	(6.4)	25	(2.1)	15	(1.3)
Push or throw you	905	(76.8)	189	(16.0)	55	(4.7)	18	(1.5)	12	(1.0)
Hit with an object	693	(58.8)	282	(23.9)	160	(13.6)	32	(2.7)	12	(1.0)
Punch you	1056	(89.6)	84	(7.1)	28	(2.4)	7	(.6)	4	(.3)
Kick you	1033	(87.6)	102	(8.7)	32	(2.7)	9	(.8)	3	(.3)
Beat you up	1063	(90.2)	68	(5.8)	36	(3.1)	6	(.5)	6	(.5)
Throw an object	1124	(95.3)	43	(3.6)	7	(.6)	2	(.2)	3	(.3)
Total[b]	395	(33.5)	417	(35.4)	266	(22.6)	60	(5.1)	41	(3.4)
Severe Physical Abuse Scale[c]										
Burn or scald you	1158	(98.2)	12	(1.0)	3	(.3)	3	(.3)	3	(.3)
Choke you	1145	(97.1)	24	(2.0)	8	(.7)	1	(.1)	1	(.1)
Harm with weapon	1147	(97.3)	17	(1.4)	10	(.8)	3	(.3)	2	(.2)
Break your bones	1163	(98.6)	10	(.8)	4	(.3)	1	(.1)	1	(.1)
Torture you	1148	(97.4)	18	(1.5)	8	(.7)	3	(.3)	2	(.2)
Try to kill you	1162	(98.6)	12	(1.0)	3	(.3)	1	(.1)	1	(.1)
Total[d]	1085	(92.0)	56	(4.7)	22	(1.9)	8	(.7)	8	(.7)

[a]N = 1179
[b]All Physical Abuse Scale items considered together
[c]These items were not retained in the revised Physical Abuse Scale. They are conceptualized as comprising a Severe Physical Scale, which could be used in a subsequent study.
[d]All Severe Physical Abuse Scale items considered together

Sexual Abuse

Rather than presenting frequencies for all points of endorsement on the measurement scales, frequencies for the Sexual Abuse subscales are presented for subjects who positively endorsed items comprising these subscales. This is reflective of the fact that definitions of sexual abuse are generally more clear than other forms in that even a single incident is thought to constitute abuse. Because sex differences were discovered with respect to prevalence of sexual abuse perpetrated by a non-parent (and will be reported in a later section), frequencies for all subforms of sexual abuse are presented both for all subjects together and separately for females and males in order to maximize comparability among these findings.

Six of the eight items comprising the *Sexual Harassment* subscale and six of the seven items comprising the *Sexual Abuse Without Physical Contact* subscale were retained, based on examination of inter-item correlations as well as consideration of content domain for each subscale. Frequencies for subjects who positively endorsed these subscales are presented in Tables 5 and 6.

All 10 items that comprised the *Sexual Abuse With Physical Contact (Parental)* subscale and the identical 10 items that comprised the *Non-parental* version of this subscale were retained. Frequencies of

subjects who positively endorsed these items for the Parental and Non-parental versions are presented in Tables 7 and 8, respectively. Because items comprising all of the Sexual Abuse (Parental) subscales were not highly endorsed, results from analyses that included these subscales should be interpreted cautiously.

In recognition of the fact that few studies have assessed sexual abuse separately as perpetrated by parents and non-parents, combined frequencies of subjects' endorsements of items that comprise the parental and non-parental versions of the *Sexual Abuse With Physical Contact* subscales are presented in Table 9. In addition, because there is little consensus as to whether definitions of sexual abuse should include noncontact forms of this type of abuse, Table 10 presents, in various combinations, total frequencies for subjects who reported experiences of the diverse forms of sexual abuse. It is hoped that the variety and detail with which these findings are presented will facilitate their comparison with those of other studies in this area.

Characteristics of Maltreatment Variables and Measures of Psychological Functioning

Maltreatment Variables

The mean scores obtained on final versions of all maltreatment subscales are presented in Table 11. Independent *t*-tests were conducted

Table 5

Frequencies of Subjects Who Positively Endorsed Items Indicating Sexual Harassment by a Parental Figure

Item	All Subjects[a]		Females[b]		Males[c]	
	f	(%)	f	(%)	f	(%)
Look or stare sexually	48	(4.1)	34	(5.2)	14	(2.7)
Sexual comments to you	54	(4.6)	40	(6.1)	14	(2.7)
Sexual comments about you	44	(3.7)	25	(3.8)	19	(3.6)
Talk in a sexual way	38	(3.2)	21	(3.2)	17	(3.2)
Sexual invitation	22	(1.9)	13	(2.0)	9	(1.7)
Sexual suggestion	28	(2.4)	12	(1.8)	16	(3.0)

[a]N = 1179
[b]n = 651
[c]n = 528

Table 6

Frequencies of Subjects Who Positively Endorsed Items Indicating Noncontact Sexual Abuse by a Parental Figure

Item	All Subjects[a]		Females[b]		Males[c]	
	f	(%)	f	(%)	f	(%)
Expose to you	38	(3.2)	20	(3.1)	18	(3.4)
Make you expose	39	(3.3)	24	(3.7)	15	(2.8)
Force you to watch sex	13	(1.1)	6	(.9)	7	(1.3)
Make you be naked	28	(2.4)	12	(1.8)	16	(3.0)
Make you fondle self	14	(1.2)	4	(.6)	10	(1.9)
Take sexual pictures	16	(1.4)	7	(1.1)	9	(1.7)

[a]N = 1179
[b]n = 651
[c]n = 528

Table 7

Frequencies of Subjects Who Positively Endorsed Items Indicating Contact Sexual Abuse by a Parental Figure

Item	All Subjects[a]		Females[b]		Males[c]	
	f	(%)	f	(%)	f	(%)
Touch or grab genitals	125	(10.6)	69	(10.6)	56	(10.6)
Kiss or hug sexually	31	(2.6)	21	(3.2)	10	(1.9)
Make you do something	27	(2.3)	17	(2.6)	10	(1.9)
Rub or fondle you	36	(3.1)	24	(3.7)	12	(2.3)
Make you fondle them	24	(2.0)	10	(1.5)	14	(2.7)
Insert finger/object	26	(2.2)	11	(1.7)	15	(2.8)
Oral-genital contact	18	(1.5)	10	(1.5)	8	(1.5)
Make you oral-genital	10	(.8)	5	(.8)	5	(.9)
Attempted intercourse	12	(1.0)	8	(1.2)	4	(.8)
Intercourse	7	(.6)	3	(.5)	4	(.8)

[a]N = 1179
[b]n = 651
[c]n = 528

Table 8

Frequencies of Subjects Who Positively Endorsed Items Indicating Contact Sexual Abuse by a Non-parent

Item	All Subjects[a]		Females[b]		Males[c]	
	f	(%)	f	(%)	f	(%)
Touch or grab genitals	320	(27.1)	224	(34.4)	96	(18.2)
Kiss or hug sexually	301	(25.5)	212	(32.6)	89	(16.9)
Make you do something	163	(13.8)	113	(17.4)	50	(9.5)
Rub or fondle you	201	(28.1)	187	(28.7)	74	(14.0)
Make you fondle them	187	(15.9)	126	(19.4)	61	(11.6)
Insert finger/object	127	(10.8)	111	(17.1)	16	(3.0)
Oral-genital contact	150	(12.7)	112	(17.2)	38	(6.2)
Make you oral-genital	122	(9.3)	85	(13.1)	37	(7.0)
Attempted intercourse	95	(8.1)	74	(11.4)	21	(4.0)
Intercourse	100	(8.5)	79	(12.1)	21	(4.0)

[a]N = 1179
[b]n = 651
[c]n = 528

Table 9

Frequencies of Subjects Who Positively Endorsed Items Indicating Contact Sexual Abuse Either by a Parental Figure or a Non-parent

Item	All Subjects[a]		Females[b]		Males[c]	
	f	(%)	f	(%)	f	(%)
Touch or grab genitals	376	(31.9)	250	(38.4)	126	(23.9)
Kiss or hug sexually	312	(26.5)	218	(33.5)	94	(17.8)
Make you do something	177	(15.0)	119	(18.3)	58	(11.0)
Rub or fondle you	278	(23.6)	195	(30.0)	83	(15.7)
Make you fondle them	198	(16.8)	129	(19.8)	69	(13.1)
Insert finger/object	141	(12.0)	114	(17.5)	27	(5.1)
Oral-genital contact	160	(13.6)	116	(17.8)	44	(8.3)
Make you oral-genital	126	(10.7)	86	(13.2)	40	(7.6)
Attempted intercourse	98	(8.3)	77	(11.8)	21	(4.0)
Intercourse	101	(8.6)	79	(12.1)	22	(4.2)

[a]N = 1179
[b]n = 651
[c]n = 528

Table 10

Frequencies of Sexual Abuse Reported -- Listed by Subscales and by Combinations of Subscales

Forms or Combinations of Forms of Sexual Abuse	All Subjects[a]		Females[b]		Males[c]	
	f	(%)	f	(%)	f	(%)
Harassment	121	(10.3)	74	(11.4)	47	(8.9)
Noncontact	81	(6.9)	41	(6.3)	40	(7.6)
Contact	157	(13.3)	81	(12.4)	76	(14.4)
Non-parental	426	(36.1)	291	(44.7)	135	(25.6)
Noncontact or Harassment	160	(13.6)	93	(14.3)	67	(12.7)
Contact or Noncontact	191	(16.2)	99	(15.2)	92	(17.4)
Contact or Noncontact or Harassment	240	(20.4)	134	(20.6)	106	(20.1)
Contact or Non-parental	493	(41.8)	317	(48.7)	176	(33.3)
Contact or Noncontact or Non-parental	508	(43.1)	322	(49.4)	186	(35.2)
Contact or Noncontact or Harassment or Non-parental	533	(45.2)	337	(51.8)	196	(37.1)
Noncontact and Harassment	42	(3.6)	22	(3.4)	20	(3.8)
Contact and Noncontact	47	(4.0)	23	(3.5)	24	(4.5)
Contact and Noncontact and Harassment	32	(2.7)	17	(2.6)	15	(2.8)
Contact and Non-parental	90	(7.6)	55	(8.4)	35	(6.6)
Contact and Noncontact and Non-parental	32	(2.7)	19	(2.9)	13	(2.5)
Contact and Noncontact and Harassment and Non-parental	23	(2.0)	14	(2.2)	9	(1.7)

[a]N = 1179
[b]n = 651
[c]n = 528

Table 11

Mean Scores Obtained on all Maltreatment Variables

Form of Maltreatment	All Subjects[a]			Females[b]		Males[c]	
	Range	Mean	(SD)	Mean	(SD)	Mean	(SD)
PSYCHOLOGICAL MALTREATMENT							
Rejecting	10-50	16.03	(6.71)	16.29	(6.98)	15.70	(6.36)
Degrading	10-49	15.89	(7.13)	16.25	(7.39)	15.44	(6.77)
Isolating	10-45	16.07	(5.87)	16.14	(6.09)	15.98	(5.60)
Corrupting	10-36	11.14	(2.38)	10.96	(2.03)	11.36	(2.74)
Denying E. R.	10-49	16.48	(7.04)	16.78	(7.33)	16.14	(6.67)
Exploiting	10-47	13.87	(4.91)	13.92	(5.12)	13.80	(4.65)
Verbal Terrorism	10-49	17.39	(6.30)	17.39	(6.34)	17.39	(6.27)
Physical Terrorism	10-44	12.41	(4.28)	12.40	(4.19)	12.42	(4.40)
Witness to Violence	10-42	14.83	(4.67)	15.07	(4.87)	14.54	(4.38)
Unreliable Care	10-46	16.36	(6.74)	16.67	(7.04)	15.99	(6.33)
Controlling	10-50	19.14	(7.42)	19.43	(7.62)	18.80	(7.16)
Physical Neglect	10-38	12.04	(3.30)	12.04	(3.27)	12.05	(3.33)
Total Score[d]	120-463	181.7	(55.7)	183.3	(60.0)	179.6	(54.0)
PHYSICAL ABUSE	10-46	13.19	(4.79)	13.02	(4.57)	13.41	(5.05)
SEXUAL ABUSE							
Harassment	6-28	6.29	(1.35)	6.33	(1.41)	6.24	(1.28)
Noncontact	6-30	6.21	(1.23)	6.17	(1.03)	6.26	(1.44)
Contact	10-50	10.44	(2.15)	10.43	(1.97)	10.45	(2.35)
Non-Parental	10-50	12.72	(6.05)	13.68	(7.05)	11.53	(4.23)

[a]N = 1179
[b]n = 651
[c]n = 528
[d]Psychological Maltreatment subscales combined to produce a total score

to determine whether mean scores on the various maltreatment variables were significantly different for females and males. Because of the large sample used in the present study, a more conservative significance level of .01 was adopted for the *t*-tests as opposed to the commonly used .05 value. This value was corrected by the Bonferroni method for multiple independent tests (i.e., .01/17 = .0006). Results from these tests revealed that females and males did not differ in total scores obtained on measures of psychological, physical, or sexual maltreatment as perpetrated by a parental figure. Females and males did differ, however, on scores of sexual abuse as perpetrated by a person other than a parental figure, with females reporting a significantly greater number of occurrences of non-parental sexual abuse than males ($t_{(2,1177)} = 6.19$, $p < .0006$, effect size = .35).

Pearson product-moment correlation coefficients were computed as a first step in examining the relationships among all maltreatment variables. A matrix of these coefficients appears in Table 12 and reveals moderate to high correlations (i.e., $r = .30$ to .86) among most Psychological Maltreatment variables and between Physical Abuse and the Psychological Maltreatment subscales (i.e., $r = .36$ to .80). High correlations are also observed among Parental Sexual Abuse variables. Relationships between all Sexual Abuse variables and most Psychological

Table 12

Pearson Product-moment Correlation Coefficients for all Maltreatment Variables[a]

	REJ[b]	DEG[c]	ISO[d]	COR[e]	DEN[f]	EXP[g]	VT[h]	PT[i]	WIT[j]	UNR[k]	CON[l]	NEG[m]	PA[n]	SH[o]	SANP[p]	SAC[q]
DEG	.863															
ISO	.626	.593														
COR	.397	.419	.297													
DEN	.827	.767	.583	.368												
EXP	.699	.685	.581	.483	.653											
VT	.800	.805	.599	.419	.678	.643										
PT	.695	.697	.506	.455	.604	.663	.770									
WIT	.608	.621	.431	.408	.535	.565	.748	.693								
UNR	.821	.776	.596	.424	.821	.734	.761	.678	.628							
CON	.772	.749	.729	.332	.719	.658	.728	.583	.531	.750						
NEG	.556	.515	.418	.459	.580	.624	.508	.566	.466	.602	.481					
PA	.639	.656	.476	.363	.541	.566	.755	.802	.672	.570	.532	.468				
SH	.301	.282	.182	.375	.264	.361	.282	.370	.250	.292	.194	.396	.291			
SAN	.223	.230	.145	.423	.192	.276	.226	.321	.196	.210	.176	.369	.269	.627		
SAC	.224	.230	.131	.365	.201	.283	.223	.315	.191	.216	.159	.360	.262	.741	.803	
SANP[r]	.184	.171	.173	.197	.160	.188	.136	.130	.104	.170	.153	.210	.100	.285	.224	.252

[a]N = 1179
[b]REJ=Rejecting
[c]DEG=Degrading
[d]ISO=Isolating
[e]COR=Corrupting
[f]DEN=Denying Emotional Responsiveness
[g]EXP=Exploiting (Nonsexual)
[h]VT=Verbal Terrorism
[i]PT=Physical Terrorism
[j]WIT=Witness to Family Violence
[k]UNR=Unreliable and Inconsistent Care
[l]CON=Controlling and Stifling Independence
[m]NEG=Physical Neglect
[n]PA=Physical Abuse
[o]SH=Sexual Harassment
[p]SAN=Sexual Abuse Without Physical Contact
[q]SAC=Sexual Abuse With Physical Contact
[r]SANP=Sexual Abuse (Non-parental)

Maltreatment variables and between Sexual Abuse and Physical Abuse variables appear weaker, however, ranging from low to moderate (i.e., r = .10 to .40).

Factor Structures of Maltreatment Variables

In order to investigate the factor structures of the 17 maltreatment subscales, a series of principal components analyses were conducted. First, items comprising each reduced subscale were entered into separate principal components analyses in order to determine whether the items comprising each particular subscale represented a similar latent construct. Next, a principal components analysis was performed with total scores for all of the Psychological Maltreatment subscales in order to determine whether evidence could be found in the present sample that the various Psychological Maltreatment subscales represented different and distinct constructs as theorized. This type of analysis was also conducted with the three Parental Sexual Abuse subscales. Finally, total scores for all forms of maltreatment assessed were entered into a principal components analysis in order to determine whether the data supported the hypothesis that Psychological Maltreatment, Physical Abuse, Sexual Abuse (Parental), and Sexual Abuse (Non-Parental) represent distinct constructs.

Results of the analyses in which the items comprising each maltreatment subscale were entered into separate principal components

analyses confirmed that the items comprising each represented a unitary construct. For all maltreatment subscales, except for two psychological maltreatment subscales (i.e., *Corrupting* and *Physical Neglect)*, only one factor was extracted with an eigenvalue greater than 1.0. For *Corrupting* and *Physical Neglect* two factors were extracted with eigenvalues greater than 1.0. Examination of scree plots (Cattell, 1966) of the eigenvalues for the factors extracted for these subscales, however, revealed that only one factor was viable for each.

Results from the principal components analysis of total scores from each Psychological Maltreatment subscale did not provide evidence that the various forms of Psychological Maltreatment assessed in this study represent unique constructs. The analysis extracted only a single factor with an eigenvalue greater than 1.0. Using a minimum factor loading cut-off value of .45 as an indicator of meaningful association with the factor, all subscales appeared to load meaningfully on the single factor extracted. Examination of the communalities, however, indicates that *Corrupting* was not well-defined by this factor solution. The factor matrix and communalities for variables in this analysis are presented in Table 13.

Likewise, the principal components analysis of total scores from each Parental Sexual Abuse subscale resulted in the extraction of a single

factor with an eigenvalue greater than 1.0. All 3 forms of Parental Sexual Abuse had high loadings on the single factor extracted and inspection of communalities reveals that all subscales were well-defined by the factor solution. Results from this analysis are presented in Table 14.

Results of the principal components analysis of total scores for all forms of maltreatment, presented in Table 15, provide confirmation, generally, that the broad forms of maltreatment assessed represent different constructs. The analysis extracted three factors with eigenvalues greater than 1.0 and these were rotated obliquely in order to improve interpretability. The first factor extracted accounted for 52.2% of the 71.8% of total variance accounted for in all variables by the three factors. Physical Abuse and all Psychological Maltreatment subscales except for *Corrupting* and *Physical Neglect* loaded highly and uniquely on the first factor. *Corrupting* and *Physical Neglect* were found to load moderately on both Factors 1 and 2. Using a cutoff communality value of .45 for inclusion of a variable in the interpretation of a factor, however, *Corrupting* failed to meet this criterion and is not considered to be meaningfully associated with any of the three factors extracted. Although *Physical Neglect* is associated with both the first and second factors, it shows stronger association with Factor 1.

Table 13

Factor Loadings and Communalities for Principal Components of Psychological Maltreatment Subscale Scores[a]

Form of Psychological Maltreatment	Factor Loading	Commun-ality
Rejecting	.91	.83
Degrading	.89	.79
Isolating	.72	.52
Corrupting	.54	.29
Denying Emotional Resp.	.85	.73
Exploiting (Nonsexual)	.83	.68
Verbal Terrorism	.88	.78
Physical Terrorism	.82	.67
Witness to Violence	.75	.56
Unreliable Care	.90	.81
Controlling/Stifling Indep.	.84	.70
Physical Neglect	.69	.48
Eigenvalue	*7.8*	
% of Variance	*65.4*	

[a]N = 1179

Table 14

Factor Loadings and Communalities for Principal Components of Parental Sexual Abuse Subscale Scores[a]

Form of Sexual Abuse by a Parental Figure	Factor Loading	Commun-ality
Sexual Harassment	.87	.76
Noncontact	.90	.81
Contact	.94	.89
Eigenvalue	*2.5*	
% of Variance	*81.6*	

[a]N = 1179

Table 15

Factor Loadings and Communalities for Oblique Principal Components of All Maltreatment Subscale Scores[a]

Form of Maltreatment	Factor Loadings			Commu n- ality
	F1	F2	F3	
PSYCHOLOGICAL MALTREATMENT				
Rejecting	**.91**	.30	.03	.84
Degrading	**.89**	.30	-.03	.80
Isolating	**.74**	.15	.20	.61
Corrupting	**.50**	**.56**	-.04	.42
Denying E. R.	**.86**	.25	.10	.75
Exploiting	**.81**	.40	.04	.68
Verbal Terrorism	**.89**	.32	-.22	.83
Physical Terrorism	**.81**	.44	-.32	.79
Witness to Violence	**.74**	.32	-.36	.68
Unreliable Care	**.90**	.30	.04	.81
Controlling	**.85**	.18	.13	.77
Physical Neglect	**.66**	**.50**	.06	.53
PHYSICAL ABUSE	**.75**	.39	-.40	.73
SEXUAL ABUSE				
Harassment	.32	**.85**	.10	.73
Noncontact	.25	**.88**	.03	.78
Contact	.24	**.91**	.07	.83
Non-parental	.22	.32	**.72**	.63
Eigenvalue	*8.9*	*2.3*	*1.1*	
% of Variance	*52.2*	*13.7*	*5.9*	
Cum. % of Variance	*52.2*	*65.9*	*71.8*	

[a]N = 1179

Despite the small association of *Corrupting* and *Physical Neglect* with the second factor, this factor was essentially defined by the three Sexual Abuse (Parental) subscales, all of which loaded highly and uniquely on this factor. The second factor accounted for 13.5% of variance in the maltreatment variables. Only Sexual Abuse (Non-parental) loaded meaningfully on the third factor, which accounted for 5.9% of the variance in maltreatment variables.

The findings from the principal components analysis of psychological maltreatment subscale scores clearly indicate that psychological maltreatment, at least as assessed in the present sample, might be better conceptualized as a unitary construct as opposed to consisting of separate subforms. In order to assess the ability of each of the theoretical subforms of psychological maltreatment to predict levels of subjects' current psychological adjustment, however, psychological maltreatment was treated as consisting of separate subforms in some of the subsequent multivariate analyses. Results of these analyses could prove useful, as well, should subsequent studies discover evidence for considering some of the psychological maltreatment subforms to be distinct. In analyses where the specific subforms were not of direct concern, of course, Psychological Maltreatment was, in fact, treated as a total score. An obvious benefit of considering psychological

maltreatment as a total score is that the unique contributions of the various broad forms of childhood maltreatment to measures of adult psychological functioning could be more clearly observed.

For the same reasons as those outlined for psychological maltreatment, the subscales that comprise the Parental Sexual Abuse Questionnaire were analyzed separately. An additional reason for treating these subscales separately, however, is that they clearly represent different levels of abuse severity.

Co-morbidity of Various Forms of Maltreatment

To address the question of the extent to which the various broad forms of maltreatment (i.e., psychological, physical, and sexual) occurred together in a given subject's childhood experience, frequencies were tabulated for each of these forms alone and in combination with one another. Because participants' experiences of all three broad forms of maltreatment were assessed as perpetrated by a parent figure only, frequencies of sexual abuse as perpetrated by a non-parent were not included in these tabulations. The results presented in this section, therefore, reflect the extent to which participants were subjected to various combinations of maltreatment by their parental figures. In addition, because of the controversy over whether noncontact experiences

should be included in definitions of sexual abuse, the more conservative approach was taken of considering contact sexual abuse experiences only.

Tabulation of these frequencies required that a point be chosen for subjects' reports of each form of maltreatment where some subjects might be considered to have been maltreated and others not. As a later section will discuss, this is not an easy determination to make. For present descriptive purposes, however, subjects were considered to have been sexually abused by a parent if they experienced even a single incident of contact sexual abuse during childhood. This is in line with social policy and the thinking of most researchers in this area (e.g., Finkelhor, 1984). This criterion was met by 13.3% of subjects in the present sample (12.4% of females and 14.4% of males).

For physical and psychological forms of maltreatment, where a number of additional factors might need to be considered before judging a child to have been maltreated, the criteria chosen were more stringent. Subjects were considered to have been physically abused, for example, if they reported having experienced any of the items comprising the Physical Abuse Scale somewhere between *sometimes* and *very often*. This was thought to imply that the physically violent parental acts these individuals experienced were more than isolated incidents and, as well, identified subjects who scored above the median on the Physical Abuse

Scale. Thirty per cent of subjects (29.8% of females and 32.8% of males) met this criterion.

Considering subjects to have been psychologically maltreated if they scored above the median on a scale comprised of all Psychological Maltreatment subscale items (i.e., a total psychological maltreatment score) would also identify those subjects who reported having experienced some form of psychological maltreatment *sometimes* to *very often*. Because it is considerably more difficult to determine, however, relative to sexual abuse and some types of physical abuse, whether a given individual should be considered psychologically maltreated, a more conservative criterion was chosen for present descriptive purposes. Specifically, those subjects who reported having experienced parental behaviors comprising any of the psychological maltreatment subscales *often* or *very often* were considered to have been psychologically maltreated. Even with this stricter criterion, more than 63% of subjects (67.7% of females and 58.0% of males) could be considered to have suffered from psychological maltreatment.

Table 16 presents frequencies for the various combinations of maltreatment, then, in which the above criteria were applied to identify members of maltreatment groups. Perhaps more instructive, Tables 17 through 19 present frequencies of subjects classified as having

experienced one broad form of maltreatment who also experienced one or more other broad forms of maltreatment.

As these data indicate, if the definitions described above are applied, greater than 70% of subjects could be considered to have suffered one or more forms of maltreatment during childhood. Psychological maltreatment appears much more likely to have occurred alone (i.e., without concomitant other forms of maltreatment) than were physical abuse or sexual abuse. In addition, it appears that those subjects who experienced a particular "target" broad form of maltreatment (e.g., sexual abuse) were more likely to experience the other broad forms of maltreatment (e.g., physical abuse and sexual abuse) than were those subjects who did not experience the "target" form of maltreatment. This appears to have been the case regardless of which broad form of maltreatment is considered the "target" form. Finally, adding to the general indications that psychological maltreatment is more pervasive than other forms, these data reveal that psychological maltreatment also occurred in the large majority of cases where sexual abuse or physical abuse occurred.(i.e., 78% and 85%, respectively). In contrast, only 42% of subjects who reported frequent psychological maltreatment also reported physical abuse and 16% of psychologically maltreated subjects also reported sexual abuse.

Table 16

Frequencies of Subjects Who Experienced Various Combinations of Broad Forms of Parental Maltreatment

Combinations of Broad Forms of Maltreatment	f	(%)	(% of Maltreated[a])
Not Maltreated	351	(29.8)	
Psychological Maltreatment only	377	(32.0)	(45.5)
Physical Abuse only	46	(3.9)	(5.6)
Sexual Abuse only	27	(2.3)	(3.3)
Psychological and Physical only	248	(21.0)	(30.0)
Psychological and Sexual only	57	(4.8)	(6.9)
Physical and Sexual only	8	(.7)	(1.0)
Psychological, Physical, and Sexual	65	(5.5)	(7.9)
Total	*1179*	*(100)*	*(100)*

[a]n = 828

Table 17

Frequencies of Subjects Who Reported Sexual Abuse by a Parent and Who Also Reported Other Broad Forms of Parental Maltreatment

Other Forms of Maltreatment Reported	Sexually Abused[a]		Not Sexually Abused[b]	
	f	(%)	f	(%)
Physical Abuse[c]	73	(46.5)	294	(28.8)
Psychological Maltreatment[d]	122	(77.7)	625	(61.1)

[a]Subjects who endorsed one or more Parental Contact Sexual Abuse Items (n = 157)
[b]Subjects who endorsed no Parental Contact Sexual Abuse items (n = 1022)
[c]Subjects who reported having experienced one or more Physical Abuse items *sometimes* to *very often* (n = 367)
[d]Subjects who reported having experienced one or more Psychological Maltreatment items *often* or *very often* (n = 747)

Table 18

Frequencies of Subjects Who Reported Physical Abuse by a Parent and Who Also Reported Other Broad Forms of Parental Maltreatment

Other Forms of Maltreatment Reported	Physically Abused[a]		Not Physically Abused[b]	
	f	(%)	f	(%)
Sexual Abuse[c]	73	(19.9)	84	(9.7)
Psychological Maltreatment[d]	313	(85.3)	434	(50.1)

[a]Subjects who reported having experienced one or more Physical Abuse items *sometimes* to *very often* (n = 367)
[b]Subjects who reported having experienced Physical Abuse items *never* or *once or twice* (n = 812)
[c]Subjects who endorsed one or more Parental Contact Sexual Abuse Items (n = 157)
[d]Subjects who reported having experienced one or more Psychological Maltreatment items *often* or *very often* (n = 747)

Table 19

Frequencies of Subjects Who Reported Psychological Maltreatment by a Parent and Who Also Reported Other Broad Forms of Parental Maltreatment

Other Forms of Maltreatment Reported	Psychologically Maltreated[a]		Not Psychologically Maltreated[b]	
	f	(%)	f	(%)
Physical Abuse[c]	313	(41.9)	54	(12.5)
Sexual Abuse[d]	122	(16.3)	35	(8.1)

[a]Subjects who reported having experienced one or more Psychological Maltreatment items *often* or *very often* (n = 747)
[b]Subjects who reported having experienced one or more Psychological Maltreatment items *never* to *sometimes* (n = 432)
[c]Subjects who reported having experienced one or more Physical Abuse items *sometimes* to *very often* (n = 367)
[d]Subjects who endorsed one or more Parental Contact Sexual Abuse Items (n = 157)

Measures of Psychological Functioning

Mean scores obtained on the measures of participants' current levels of psychological functioning are presented in Table 20. Pearson product-moment correlation coefficients, presented in Table 21, reveal strong relationships among these measures.

Brief Symptom Inventory

The mean scores obtained on the Global Severity Index (GSI) of the BSI for females and males are similar to those reported by Cochran and Hale (1985) for their sample of 204 college females ($M = .71$, $SD = .42$) and 143 college males ($M = .84$, $SD = .55$). Although Cochran and Hale did not report sex differences in their study, females in the present study scored significantly higher on the GSI than did males ($t_{(1178)} = 5.37$, $p < .0006$, effect size = .31).

Unfortunately, Derogatis (1992) did not present normative data on the BSI for college students and failed to report separate norms by sex for an adult non-patient sample. When compared with the overall adult non-patient mean value for the GSI ($M = .30$, $SD = .31$), however, the results of the present study support the contention by Cochran and Hale (1985) that college students tend to report higher levels of psychological distress than do normal adults. It is noted that the levels of general distress reported by students both in the Cochran and Hale study and in

Table 20

Mean Scores Obtained on Measures of Psychological Functioning

Measure	Cronbach Alpha	All Subjects[d]			Females[e]		Males[f]	
		Range	Mean	(SD)	Mean	(SD)	Mean	(SD)
BSI[a]	.96	0-3.2	.74	(.56)	.81	(.59)	.64	(.51)
CSEI[b]	.84	0-100	66.0	(21.1)	63.2	(21.6)	69.5	(20.0)
TSC-40[c]	.92	0-103	24.1	(15.7)	26.5	(16.4)	21.2	(14.4)

[a]Global Severity Index of the Brief Symptom Inventory
[b]Coopersmith Self-Esteem Inventory (Adult Version)
[c]Trauma Symptom Checklist-40
[d]N = 1179
[e]n = 651
[f]n = 528

Table 21

Pearson Product-moment Correlation Coefficients for Measures of Psychological Functioning

Measure	BSI[a]			CSEI[b]		
	All[d]	Females[e]	Males[f]	All	Females	Males
CSEI[b]	-.66	-.66	-.65			
TSC-40[c]	.85	.84	.85	-.60	-.59	-.58

[a]Global Severity Index of the Brief Symptom Inventory
[b]Coopersmith Self-Esteem Inventory (Adult Version)
[c]Trauma Symptom Checklist-40
[d]N = 1179
[e]n = 651
[f]n = 528

the present study fall somewhere between levels reported by so-called normal adults and psychiatric out-patients.

Coopersmith Self-Esteem Inventory

The mean scores obtained on the CSEI for females (M = 63.2, SD = 21.6) and for males (M = 69.5, SD = 20.0) were similar to those reported by Coopersmith (1990) for a sample of 112 college females (M = 71.6, SD = 19.5) and 114 college males (M = 68.4, SD = 18.4). Unlike the data reported by Coopersmith however, where no significant gender effects were observed, males in the present study reported significantly higher levels of self-esteem than did females ($t_{(1178)}$ = -5.20, $p < .0006$, effect size = .30).

Trauma Symptom Checklist-40

The mean scores obtained on the TSC-40 were 26.5 (SD = 16.4) for females and 21.2 for males (SD = 14.4). Females in the current study reported significantly higher levels of trauma symptoms than did males ($t_{(1178)}$ = 5.78, $p < .0006$, effect size = .33). Unfortunately, normative data for a college student sample are not yet available for this scale. Subjects in the present sample obtained mean scores on the TSC-40, however, that were very similar to those reported by Elliott and Briere (1991) for 2,833 professional women (i.e., M = 22.2, SD = 11.4).

Relationships Among Maltreatment Variables and Measures of Psychological Functioning

Pearson product-moment correlation coefficients for all maltreatment variables with the dependent measures are presented in Table 22. Because of the very large sample used in this study, relatively small correlations are likely to be statistically significant at the commonly used alpha level of .05. Thus, a more conservative significance level of .01 was used, and this was corrected for multiple independent comparisons by the Bonferroni method. For the matrix of 51 bivariate correlations presented in Table 22, the cutoff alpha level of .0002 (51/.01 = .0002) corresponds to a minimum Pearson correlation coefficient of .16 at which relationships among variables may be considered meaningful. It should be noted, however, that such a low correlation coefficient represents only about 3% of shared variance between the two variables considered.

Assuming a minimum *r* value of .16 to represent a meaningful relationship among variables, then, all of the Psychological Maltreatment subscales demonstrate meaningful associations with each measure of psychological functioning for both females and males.

In all cases where meaningful relationships appear to exist between maltreatment subscales and psychological functioning, these

Table 22

Pearson Product-moment Correlation Coefficients for Maltreatment Variables With Measures of Psychological Functioning

Maltreatment Variables	BSI[a]			CSEI[b]			TSC-40[c]		
	All[d]	Fem[e]	Male[f]	All	Fem	Male	All	Fem	Male
PSYCHOLOGICAL MALTREATMENT									
Rejecting	.39	.39	.40	-.44	-.45	-.43	.42	.42	.42
Degrading	.38	.39	.36	-.42	-.44	-.39	.40	.42	.36
Isolating	.31	.28	.37	-.34	-.34	-.33	.33	.30	.40
Corrupting	.19	.17	.26	-.17	-.17	-.20	.23	.21	.31
Denying E. R.	.36	.34	.38	-.40	-.42	-.38	.38	.39	.38
Exploiting	.34	.28	.45	-.35	-.34	-.38	.35	.30	.44
Verbal Terror	.37	.38	.36	-.37	-.41	-.33	.39	.40	.40
Physical Terror	.32	.32	.32	-.29	-.33	-.25	.32	.30	.35
Witness to Violence	.26	.26	.26	-.26	-.27	-.24	.29	.26	.32
Unreliable Care	.39	.36	.42	-.43	-.43	-.42	.42	.40	.43
Controlling	.42	.39	.47	-.44	-.46	-.42	.44	.42	.46
Physical Neglect	.31	.32	.30	-.27	-.26	-.28	.34	.35	.35
Total Score[g]	.43	.41	.45	-.45	-.46	-.43	.46	.45	.47
PHYSICAL ABUSE	.24	.25	.24	-.24	-.27	-.22	.25	.24	.28
SEXUAL ABUSE									
Harassment	.17	.16	.17	-.14	-.14	-.14	.22	.20	.24
Noncontact	.15	.15	.17	-.14	-.13	-.16	.20	.18	.24
Contact	.13	.12	.15	-.12	-.10	-.15	.19	.18	.21
Non-parental	.18	.15	.19	-.12	-.08	-.12	.26	.22	.28

[a]Global Severity Index of the Brief Symptom Inventory
[b]Coopersmith Self-Esteem Inventory
[c]Trauma Symptom Checklist-40
[d]All subjects (N = 1179)
[e]Female subjects (n = 651)
[f]Male subjects (n = 528)
[g]Psychological Maltreatment subscales combined to produce a total score

relationships are positive with respect to the BSI and the TSC-40 and are negative with respect to the CSEI. That is, greater degrees of maltreatment are related to greater psychological distress and trauma symptoms, and to lower levels of self-esteem.

For females, the relationships between *Corrupting* and the measures of both psychological symptoms and self-esteem are only marginally meaningful. As discussed previously, however, because a small number of participants positively endorsed items comprising the *Corrupting* subscale, relative to other psychological maltreatment subscales, results of analyses involving this variable should be viewed cautiously. The three Psychological Maltreatment subscales that seem to show the strongest relationships with the dependent measures are *Controlling or Stifling Independence*, *Rejecting*, and *Unreliable and Inconsistent Care*.

Correlation coefficients of females' and males' scores on the Physical Abuse scale with the dependent measures, although low, also appear meaningful. Relationships between *Sexual Abuse* variables and the measures of psychological functioning, however, appear weak. For sexual abuse perpetrated by a parental figure, weak but meaningful (i.e., marginally significant) relationships appear to exist between *Sexual Harassment* and psychological symptoms for males and between *Sexual*

Abuse Without Physical Contact for males. *Sexual Harassment, Sexual Abuse Without Physical Contact*, and *Sexual Abuse With Physical Contact* all appear related to trauma symptoms, however, both for females and males. None of the forms of parental sexual abuse appear to be related to self-esteem either for females or males. Sexual abuse perpetrated by a person other than a parental figure appears to be related to psychological symptoms in males but not females and to trauma symptoms in both females and males. Like parent-perpetrated sexual abuse, non-parental sexual abuse does not appear to be related to self-esteem for females or males.

Relationships Among Primary Variables and Demographic Variables

In order to determine whether demographic variables were related to subjects' scores on maltreatment subscales and on measures of psychological functioning, Pearson product-moment correlation coefficients were computed for each of nine demographic variables (i.e., sex, age, size of family of origin, size of community in which participant was raised, income of family of origin, mother's education level, father's education level, mother's social class, and father's social class) with each of the maltreatment variables and the measures of psychological functioning. These coefficients were computed for the total sample and for females and males separately. Using a significance level of .01

corrected for the 180 comparisons (.01/180 = .0001) yielded a minimum *r* value of .17 as an indicator of meaningful relationships. No meaningful relationships were discovered among any of the demographic variables assessed and scores on any of the maltreatment subscales or on measures of psychological functioning, other than the sex differences on measures of psychological functioning reported earlier. As a result, *Sex* was the only demographic variable used in subsequent analyses.

Relationships Among Primary Variables and Social Desirability

Subjects' scores on the L Scale, which was included as a measure of social desirability, ranged from 0 to 10, with a modal score of three. This score is equivalent to that attained by subjects in the MMPI-2 normative samples (Graham, 1990) and indicates that, generally speaking, participants in the present study were honest in responding to these items.

In an attempt to determine whether participants responded truthfully to items comprising the maltreatment subscales and the measures of psychological functioning, Pearson product-moment correlation coefficients were computed for participants' scores on these measures with their scores on the MMPI-2 L Scale. These coefficients were computed for the total sample and separately for females and males. Using a conservative minimum *p* value of .01 corrected for the

20 comparisons made (.01/20 = .0005) yields a cutoff *r* value of .16 as an indicator of meaningful relationships. At this value of *r*, no meaningful relationships were discovered, indicating that participants did not appear to attempt to present themselves in a favorable light when reporting either maltreatment experiences or psychological sequelae. As a result, the L Scale was not included in subsequent analyses.

Relationships Among Primary Variables and Personal Loss and Trauma

To determine whether participants' scores on measures of psychological functioning might be related to sources of personal loss or trauma other than childhood maltreatment, Pearson product-moment correlation coefficients were computed between scores on each of the BSI, CSEI, and TSC-40 and a Loss variable as well as a Trauma variable. As discussed in a previous section, the Loss variable assessed whether participants had experienced such losses in childhood as parental separation or deaths of significant others. The Trauma variable assessed whether participants had experienced such events as serious accidents, natural disasters, or physical assaults. Seventy five percent of subjects reported having experienced at least one Loss event during childhood and 52% reported having experienced at least one Trauma event.

Correlation coefficients for these variables were computed for the total sample and for females and males separately. Assuming a significance level of .01 and correcting for the six comparisons made, a *p* value of .0017 (.01/6 = .0017) yields a cutoff *r* value of .15. At this value of *r*, no meaningful relationships were discovered between Loss and any of the psychological functioning variables or between Trauma and any of these variables. As a result, the Loss and Trauma variables were not used in subsequent analyses.

Multivariate Analyses of Relationships Between Maltreatment and Psychological Functioning

Several multivariate statistical procedures were employed to examine in greater detail the relationships among maltreatment variables and measures of psychological functioning. First, canonical correlation analyses were performed as "omnibus tests" of the hypothesis that the various forms of childhood maltreatment assessed in this study are significantly related to the measures of psychological functioning used. Thus, subjects' scores on the 12 Psychological Maltreatment subscales, the Physical Abuse scale, the three Parental Sexual Abuse subscales and the Non-parental Sexual Abuse subscale were entered into the analysis on one side of the equation and scores on the BSI, the CSEI, and the TSC-40 were entered on the opposite side of the equation. Because of the

statistically significant sex differences discussed earlier for subjects' scores on Non-parental Sexual Abuse and on the measures of psychological functioning, canonical analyses were performed separately for females and for males. Following the observation of statistically significant results in the canonical analyses, post hoc simple regression analyses were conducted for females and males in order to examine the relationships among maltreatment variables and measures of psychological functioning. Multivariate regression analyses were then performed, again separately for females and for males, in which all maltreatment variables were entered simultaneously into regression equations predicting each measure of psychological functioning. The multivariate regression analyses were performed primarily to examine the unique contributions of each form of maltreatment to variance observed in scores on the BSI, CSEI, and TSC-40.

Canonical Correlation Analyses

For females the overall canonical analysis was significant ($F_{(51,1879)} = 5.98$, $p < .0001$) and resulted in two statistically significant canonical correlations. The first of these was .55 and accounted for 30% of the variability observed among covariates. The second canonical correlation was .25 and, although significant, accounted for only 6% of the variance. Given this low correlation and the fact that the relationships

among the second pair of canonical variates are not readily interpretable, data are presented in Table 23 only for the first pair of canonical variates. As the table indicates, using a cutoff correlation of .3, all measures of psychological functioning and all measures of childhood maltreatment were found to be correlated with the first canonical variate.

For males, the overall canonical analysis was also significant ($F_{(51,1513)} = 6.32$, $p < .0001$), and resulted in three statistically significant canonical correlations. The first of these was .58 and accounted for 34% of the variance. The remaining two were .29 and .26, accounting for 9% and 6% of the variance, respectively. Given that the second and third canonical correlations were low and the relationships among the second and third pairs of canonical variates are not readily interpretable, data are presented in Table 24 only for the first pair of canonical variates. As in the case with females, for males all measures of psychological functioning and all measures of childhood maltreatment were correlated with the first canonical variate.

For both females and males, relationships among the first pair of canonical variates indicate that subjects who experienced greater degrees of psychological maltreatment, physical abuse, and sexual abuse during childhood also tended to experience greater levels of psychological symptomatology and trauma symptoms, as well as lower levels of self-esteem.

Table 23

Correlations, Standardized Canonical Coefficients, and Canonical Correlations Between Childhood Maltreatment and Psychological Functioning Variables and Their Corresponding Canonical Variates -- Female Subjects[a]

Variable		First Canonical Variate	
		Corr[b]	Coeff[c]
PSYCHOLOGICAL MALTREATMENT			
Rejecting		.89	.18
Degrading		.87	.24
Isolating		.65	-.04
Corrupting		.39	-.04
Denying E. R.		.83	.07
Exploiting		.65	.18
Verbal Terrorism		.80	.24
Physical Terrorism		.62	-.03
Witness to Violence		.53	-.05
Unreliable Care		.85	.21
Controlling		.89	.40
Physical Neglect		.62	.13
PHYSICAL ABUSE		.51	-.23
SEXUAL ABUSE			
Harassment		.35	.04
Noncontact		.32	.08
Contact		.30	-.01
Non-parental		.33	.13
Percent of Variance	*12.7*		
Redundancy	*42.2*		
MEASURES OF PSYCHOLOGICAL FUNCTIONING			
BSI		.80	-.16
CSEI		-.87	-.55
TSC-40		.91	.72
Percent of Variance	*73.7*		
Redundancy	*22.2*		
Canonical Correlation	*.55*		

[a]n = 651
[b]Correlation between covariate and canonical variables
[c]Standardized canonical coefficients for covariates

Table 24

Correlations, Standardized Canonical Coefficients, and Canonical Correlations Between Childhood Maltreatment and Psychological Functioning Variables and Their Corresponding Canonical Variates -- Male Subjects[a]

Variable		First Canonical Variate	
		Corr[b]	Coeff[c]
PSYCHOLOGICAL MALTREATMENT			
Rejecting		.80	.26
Degrading		.70	-.20
Isolating		.72	.08
Corrupting		.52	.02
Denying E. R.		.73	-.03
Exploiting		.80	.28
Verbal Terrorism		.71	.12
Physical Terrorism		.61	.02
Witness to Violence		.56	-.05
Unreliable Care		.80	.14
Controlling		.86	.45
Physical Neglect		.62	.07
PHYSICAL ABUSE		.49	-.25
SEXUAL ABUSE			
Harassment		.38	-.05
Noncontact		.41	.26
Contact		.35	-.09
Non-parental		.42	.25
Percent of Variance	*13.7*		
Redundancy	*40.7*		
MEASURES OF PSYCHOLOGICAL FUNCTIONING			
BSI		.90	-.13
CSEI		-.79	-.32
TSC-40		.96	.66
Percent of Variance	*78.1*		
Redundancy	*26.2*		
Canonical Correlation	*.58*		

[a]n = 528
[b]Correlation between covariate and canonical variables
[c]Standardized canonical coefficients for covariates

Bivariate Regression Analyses

The canonical correlation analyses were followed by post-hoc bivariate regression analyses. Results of these regression analyses are presented for females in Table 25 and for males in Table 26. Because of the large sample sizes, a conservative significance level of .01 was adopted for these analyses and this value was corrected by the Bonferroni method for multiple independent tests (i.e., .01/17 = .0006).

Psychological Maltreatment

Using this corrected alpha level, all 12 forms of Psychological Maltreatment assessed in this study were statistically significant predictors of psychological symptomatology, self-esteem and trauma symptom status both for females and for males. Inspection of the *R square* values, which are adjusted to more clearly reflect the goodness-of-fit of the model in the population, indicate that some forms of psychological maltreatment are better predictors than others of psychological symptomatology.

Psychological Symptoms. With respect to the BSI, for females seven of the 12 forms of Psychological Maltreatment and for males nine of these forms had bivariate *adjusted R square* values of .10 or greater, indicating that, when the effects of all other forms of maltreatment are not controlled, each of these forms of maltreatment can explain better

Table 25

Statistics for the Bivariate Regression Analyses of Each Maltreatment Variable on Each Measure of Psychological Functioning -- Female Subjects[a]

Form of Maltreatment	BSI[b]			CSEI[c]			TSC-40[d]		
	R[e]	*Rsq*[f]	*F*[g]	*R*	*Rsq*	*F*	*R*	*Rsq*	*F*
PSYCHOLOGICAL MALTREATMENT									
Rejecting	.39	.15	114.7*	.45	.20	161.9*	.42	.18	142.4*
Degrading	.39	.15	115.4*	.43	.19	150.7*	.42	.18	138.9*
Isolating	.28	.08	53.9*	.34	.11	82.8*	.30	.09	65.2*
Corrupting	.17	.03	19.2*	.17	.03	18.6*	.21	.04	28.5*
Denying E. R.	.34	.12	87.2*	.42	.17	135.3*	.39	.15	116.4*
Exploiting	.28	.08	54.5*	.33	.11	78.9*	.31	.09	66.8*
Verbal Terrorism	.37	.14	104.1*	.40	.16	122.0*	.39	.15	117.4*
Physical Terrorism	.31	.10	206.7*	.32	.10	73.6*	.30	.09	64.5*
Witness to Violence	.25	.06	44.6*	.27	.07	49.5*	.26	.07	46.2*
Unreliable Care	.36	.13	97.4*	.42	.18	142.7*	.41	.16	128.1*
Controlling	.39	.15	116.8*	.45	.20	164.7*	.42	.18	140.8*
Physical Neglect	.32	.10	71.5*	.25	.06	43.7*	.35	.12	92.4*
Total Score[h]	.41	.17	131.7*	.46	.21	177.6*	.44	.20	159.9*
PHYSICAL ABUSE	.25	.06	42.0*	.27	.07	49.2*	.24	.06	40.3*
SEXUAL ABUSE									
Harassment	.16	.03	17.0*	.13	.02	12.0*	.20	.04	27.8*
Noncontact	.15	.02	15.3*	.13	.02	11.0	.18	.03	21.9*
Contact	.12	.01	10.0	.10	.01	6.2	.18	.03	21.6*
Non-Parental	.15	.02	14.8*	.08	.01	4.1	.23	.05	35.7*

[a]n = 651 *$p < .0006$

[b]Global Severity Index of the Brief Symptom Inventory

[c]Coopersmith Self Esteem Inventory

[d]Trauma Symptom Inventory

[e]Bivariate *R*

[f]*Adjusted R square*

[g](1 and 649 degrees of freedom)

[h]Psychological Maltreatment subscales combined to produce a total score

Table 26

Statistics for the Bivariate Regression Analyses of Each Maltreatment Variable on Each Measure of Psychological Functioning -- Male Subjects[a]

Form of Maltreatment	BSI[b]			CSEI[c]			TSC-40[d]		
	R[e]	*Rsq*[f]	*F*[g]	*R*	*Rsq*	*F*	*R*	*Rsq*	*F*
PSYCHOLOGICAL MALTREATMENT									
Rejecting	.40	.16	97.6*	.43	.18	119.1*	.42	.18	112.7*
Degrading	.36	.13	78.5*	.39	.15	92.8*	.36	.13	77.0*
Isolating	.37	.14	85.0*	.33	.11	65.2*	.40	.16	98.7*
Corrupting	.26	.07	37.9*	.20	.04	22.1*	.31	.09	55.2*
Denying E. R.	.38	.14	89.0*	.39	.15	91.5*	.38	.15	89.6*
Exploiting	.44	.19	124.4*	.37	.14	85.4*	.43	.19	120.9*
Verbal Terrorism	.36	.13	78.4*	.33	.11	64.3*	.40	.16	97.6*
Physical Terrorism	.32	.11	61.8*	.25	.06	34.2*	.35	.12	74.6*
Witness to Violence	.26	.07	38.0*	.24	.06	31.0*	.32	.10	61.5*
Unreliable Care	.42	.17	111.4*	.41	.17	108.6*	.42	.18	115.5*
Controlling	.47	.22	149.6*	.42	.18	112.9*	.46	.21	142.2*
Physical Neglect	.30	.09	53.6*	.28	.08	44.5*	.35	.12	75.0*
Total Score[h]	.45	.21	136.9*	.43	.18	119.5*	.47	.22	151.6*
PHYSICAL ABUSE	.24	.06	32.2*	.22	.05	26.4*	.28	.08	44.1*
SEXUAL ABUSE									
Harassment	.16	.03	14.2*	.14	.02	10.4*	.24	.06	31.2*
Noncontact	.17	.03	15.9*	.16	.03	14.8*	.24	.06	33.1*
Contact	.14	.02	11.2	.15	.02	12.5*	.21	.04	23.7*
Non-Parental	.18	.03	18.0*	.12	.01	7.1	.28	.08	43.8*

[a]n = 528 *$p < .0006$

[b]Global Severity Index of the Brief Symptom Inventory

[c]Coopersmith Self Esteem Inventory

[d]Trauma Symptom Inventory

[e]Bivariate *R*

[f]*Adjusted R square*

[g](1 and 526 degrees of freedom)

[h]Psychological Maltreatment subscales combined to produce a total score

than 10% of variance in psychological symptom status. Of these forms, the best predictors of psychological symptom status for females appear to be *Controlling or Stifling Independence, Rejecting,* and *Degrading*. For males, the best predictors of psychological symptom status appear to be *Controlling or Stifling Independence, Exploiting,* and *Unreliable and Inconsistent Care*. The forms of psychological maltreatment that appear to be the least strong predictors of psychological symptom status are the same for females and males, namely *Corrupting* and *Witness to Family Violence*.

Self-Esteem. For the CSEI, nine of the forms of Psychological Maltreatment assessed had bivariate *adjusted R square* values of .10 or greater for females, and eight forms exceeded these values for males. For both females and males, the best predictors of self-esteem appear to be *Controlling and Stifling Independence* and *Rejecting*. The least strong predictor of self-esteem is *Corrupting* for both females and males.

Trauma Symptoms. Seven forms of Psychological Maltreatment had bivariate *adjusted R square* values of .10 or greater with respect to the TSC-40 for females and eleven had values of .10 or greater for males. *Controlling or Stifling Independence*, *Rejecting*, and *Degrading* appear to be the best predictors of trauma symptoms for females. For males, *Controlling or Stifling Independence*, *Exploiting*, *Rejecting*, and

Unreliable and Inconsistent Care seem to be the best predictors of trauma symptomatology.

Physical Abuse

Although Physical Abuse was a statistically significant predictor of each of the three forms of psychological functioning assessed in this study, *adjusted R square* values indicate that only a small amount of variance in these measures was accounted for by Physical Abuse both for females and males.

Sexual Abuse

Of the three forms of Sexual Abuse assessed as perpetrated by a parental figure, only *Sexual Harassment* appears to be related significantly to all three measures of psychological functioning for both females and males. Whereas *Sexual Abuse Without Physical Contact* was a statistically significant predictor of psychological symptoms and trauma symptoms but not self-esteem for females, this form of abuse was significantly related to all three forms of psychological functioning for males. *Sexual Abuse With Physical Contact* appears related only to trauma symptoms for females but was also a significant predictor of trauma symptoms and self-esteem in males. Despite the significant relationships observed, the bivariate *adjusted R square* values for the relationships among parental sexual abuse and psychological functioning

are very low, indicating that these relationships are weak. Again, because of the low rate of endorsement of the parental sexual abuse items by subjects in this sample, these results should be interpreted cautiously.

Sexual abuse perpetrated by a person other than a parental figure was a significant predictor of both psychological symptoms and trauma symptoms, but not self-esteem, for both females and males. As with sexual abuse perpetrated by a parental figure, this form of abuse accounted for only a small amount of the variance observed in the dependent measures.

Multivariate Regression Analyses

Psychological Maltreatment Treated as Separate Subscales

Although the bivariate regression analyses provide useful information about the simple relationships between each form of maltreatment and each measure of psychological functioning, these analyses do not illuminate the unique relationships among maltreatment forms and psychological functioning, that is, the extent to which each form of maltreatment is associated with psychological symptom status, self-esteem, and trauma symptomatology when the influences of all other forms of maltreatment are held constant. Thus to accomplish this goal, multiple regression analyses were performed for each sex in which all 12

forms of Psychological Maltreatment, Physical Abuse, and all four forms of Sexual Abuse were entered simultaneously into regression equations predicting each measure of psychological functioning. Raw and standardized regression coefficients (beta weights) and squared partial correlations for these analyses are presented in Table 27 for females and in Table 28 for males.

Psychological Symptoms

For the BSI, the overall regression analysis was statistically significant for females ($F_{(17,633)} = 9.56$, $p < .0001$) and for males ($F_{(17,510)} = 11.84$, $p < .0001$). Despite the observation of significant unique relationships among some subforms of Psychological Maltreatment and psychological symptom status for both sexes, examination of the squared partial correlation coefficients reveals that these relationships are extremely weak, undoubtedly the result of a substantial amount redundant variability shared by the maltreatment variables. The observation of negative beta weights for some variables, furthermore (i.e., *Exploiting* for females and *Physical Abuse* for males), when positive beta coefficients were observed for these variables in the bivariate regression analyses, is another indication of the considerable redundant variability among maltreatment variables.

Table 27

Statistics for the Multivariate Regression Analyses of All Maltreatment Variables on Each Measure of Psychological Functioning -- Female Subjects[a]

Form of Maltreatment	BSI[b]			CSEI[c]			TSC-40[d]		
	B[e]	β[f]	sr^{2}[g]	*B*	β	sr^2	*B*	β	sr^2
PSYCHOLOGICAL MALTREATMENT									
Rejecting	.231	.062		-14.96	-.111		7.03	.069	
Degrading	.497	.140		-12.61	-.098		13.99	.143	
Isolating	-.162	-.039		0.29	.002		-4.61	-.040	
Corrupting	-.317	-.034		12.74	.037		-3.62	-.014	
Denying E. R.	-.095	-.027		-8.97	-.069		-0.32	-.003	
Exploiting	-.590	-.127	.005*	5.88	.035		-18.16	-.141	.006*
Verbal Terrorism	.591	.135		-12.49	-.081		18.10	.155	
Physical Terrorism	.331	.061		-2.52	-.013		-3.32	-.022	
Witness to Violence	-.099	-.020		4.11	.023		-3.33	-.024	
Unreliable Care	.131	.035		-14.86	-.110		8.71	.085	
Controlling	.729	.193	.011*	-27.29	-.199	.010*	20.07	.193	.009*
Physical Neglect	.930	.149	.009*	7.72	.034		27.35	.159	.012*
PHYSICAL ABUSE	-.571	-.113		17.00	.093		-17.55	-.126	.005*
SEXUAL ABUSE									
Harassment	.260	.028		-8.03	-.024		3.85	.015	
Non Contact	.753	.059		-30.27	-.065		7.98	.023	
Contact	-.599	-.054		23.57	.059		7.44	.024	
Non-parental	.220	.060		1.96	.015		12.43	.122	.013*
Intercept	-1.561			128.67			-59.07		
	R = .452 *R^2 = .204* *adj R^2 = .183*			*R = .490* *R^2 = .240* *adj R^2 = .220*			*R = .508* *R^2 = .258* *adj R^2 = .238*		
	Unique = 4.4% *Shared = 16.0%*			*Unique = 2.5%* *Shared = 21.5%*			*Unique = 5.7%* *Shared = 20.1%*		

[a]n = 651 $*p < .05$

[b]Global Severity Index of the Brief Symptom Inventory

[c]Coopersmith Self Esteem Inventory

[d]Trauma Symptom Inventory

[e]Unstandardized regression coefficient

[f]Standardized regression coefficient

[g]Squared partial correlation

Table 28

Statistics for the Multivariate Regression Analyses of All Maltreatment Variables on Each Measure of Psychological Functioning -- Male Subjects[a]

Form of Maltreatment	BSI[b]			CSEI[c]			TSC-40[d]		
	B[e]	β[f]	sr^{2}[g]	*B*	β	sr^{2}	*B*	β	sr^{2}
PSYCHOLOGICAL MALTREATMENT									
Rejecting	.062	.018		-33.70	-.252	.011*	9.86	.102	
Degrading	-.314	-.097		-7.48	.059		-17.15	-.186	.008*
Isolating	.056	.015		-1.75	-.012		6.98	.066	
Corrupting	.147	.023		5.34	.021		4.03	.022	
Denying E. R.	.026	.008		2.31	.018		-1.55	-.017	
Exploiting	.962	.227	.017*	-18.76	-.113		17.76	.148	.007*
Verbal Terrorism	.266	.073		6.76	.047		12.09	.116	
Physical Terrorism	.480	.107		23.81	.135		8.07	.063	
Witness to Violence	-.428	.094		11.86	.067		1.19	.009	
Unreliable Care	.210	.062		-18.50	-.140		3.89	.041	
Controlling	1.063	.316	.011*	-22.85	-.173	.008*	24.12	.252	.017*
Physical Neglect	.037	.007	.009*	-3.25	-.015		7.63	.050	
PHYSICAL ABUSE	-.664	-.163	.007*	9.08	.057		-18.25	-.158	.006*
SEXUAL ABUSE									
Harassment	-.534	-.056		20.98	.056		-2.36	-.009	
Non Contact	1.122	.126		-36.16	-.104		39.10	.155	.006*
Contact	-.630	-.069		-14.38	-.040		-22.05	-.085	
Non-parental	.536	.111	.010*	-6.89	-.036		25.31	.185	.029*
Intercept	-2.011			162.28			-81.53		
	R = .532 *R^2 = .283* *adj R^2 = .259*			*R = .494* *R^2 = .244* *adj R^2 = .218*			*R = .561* *R^2 = .315* *adj R^2 = .292*		
	Unique = 7.8% *Shared = 20.5%*			*Unique = 4.2%* *Shared = 20.2%*			*Unique = 9.6%* *Shared = 21.9%*		

[a]n = 528 *$p < .05$

[b]Global Severity Index of the Brief Symptom Inventory
[c]Coopersmith Self Esteem Inventory
[d]Trauma Symptom Inventory
[e]Unstandardized regression coefficient
[f]Standardized regression coefficient
[g]Squared partial correlation

For females, the total amount of unique variability in BSI scores accounted for by maltreatment variables was only 4.4%. Thus 16.0% of the variability in BSI scores for females was shared among maltreatment variables. Similarly, for males only a small amount of the total variability in BSI scores accounted for by maltreatment variables was unique (7.8%) and the remaining (20.5%) was shared.

Self-Esteem

For the CSEI, the overall regression analysis was statistically significant for females ($F_{(17,633)} = 11.78, p < .0001$) and for males ($F_{(17,510)} = 9.66, p < .0001$). For females, only one form of Psychological Maltreatment, namely *Controlling or Stifling Independence* demonstrated unique weak association with self-esteem. Physical Abuse was not uniquely associated with self-esteem, nor were any of the forms of Sexual Abuse. Of the 24% of total variance in females' CSEI scores accounted for by maltreatment variables only 2.5% was unique.

For males, two forms of Psychological Maltreatment showed unique weak associations with self-esteem, namely *Rejecting*, and *Controlling or Stifling Independence*. None of the forms of Sexual Abuse or Physical Abuse was found to contribute unique variance in males' CSEI scores. Only 4.2% of the total variance (24.4%) in males' CSEI scores accounted for by maltreatment variables was unique, with

the remaining 20.2% representing variance shared among maltreatment variables.

Trauma Symptoms

For the TSC-40, the overall regression analysis was statistically significant for females ($F_{(17,633)} = 12.94$, $p < .0001$) and for males ($F_{(17,510)} = 13.79$, $p < .0001$). As with the other measures of psychological functioning, unique weak relationships were observed between some subforms of Psychological Maltreatment and trauma symptoms for females and males. Unique weak relationships were also observed between Non-parental Sexual Abuse and trauma symptoms for both sexes and between Parental Noncontact Sexual Abuse and trauma symptoms for males. Negative beta coefficients were also observed for some forms of maltreatment (i.e., *Exploiting* for females, *Degrading* for males, and *Physical Abuse* for both sexes), again the likely result of substantial redundant variability among the maltreatment variables.

Of the 25.8% of total variability in females' TSC-40 scores accounted for by maltreatment variables, 5.7% was unique and the remaining 20.1% was shared among maltreatment variables. Of the 31.5% of total variability in males' scores on the TSC-40, 9.6% was unique and the remaining 21.9% was shared among the maltreatment variables.

Psychological Maltreatment Treated as a Total Score

Given the findings of the principal components analyses and the multivariate regression analyses which indicated that, at least for the present sample, the Psychological Maltreatment subscales share a great deal of variability with one another, a second type of multiple regression analysis was conducted in order to determine how much unique variance in the measures of psychological functioning was accounted for by each broad form of maltreatment (i.e., Psychological Maltreatment, Physical Abuse, Parental Sexual Abuse, and Non-parental Sexual Abuse). Thus, scores on each of the Psychological Maltreatment subscales were collapsed to create a total score of Psychological Maltreatment. Rather than follow this same procedure for the Parental Sexual Abuse subscales, which clearly represent different levels of severities of sexual abuse, only *Sexual Abuse With Physical Contact (Parental)* was chosen to represent Parental Sexual Abuse. This form was chosen for two reasons. First, it is the form of sexual abuse that researchers and child protection workers are most concerned with and, second, because the items that comprise this subscale are identical to those that comprise the Non-Parental version, results should be more readily comparable. Both raw and standardized regression coefficients as well as squared partial correlations for these analyses are presented in Table 29 for females and in Table 30 for males.

Table 29

Statistics for the Multivariate Regression Analyses of Broad Maltreatment Forms on Each Measure of Psychological Functioning -- Female Subjects[a]

Form of Maltreatment	BSI[b]			CSEI[c]			TSC-40[d]		
	B[e]	β[f]	sr^2[g]	*B*	β	sr^2	*B*	β	sr^2
Psychological Maltreatment	2.320	.315	.099*	-103.35	-.386	.149*	70.81	.508	.122*
Physical Abuse	-.446	-.062		23.23	.087	.008*	-20.15	-.145	.010*
Sexual Abuse (Parental)	.164	.014		3.68	.009		17.19	.056	
Sexual Abuse (Non-parental)	.202	.052		3.74	.027		12.15	.119	.013*
Intercept	-4.295			262.02			-141.30		
	R = .421 *R^2 = .177* *adj R^2 = .172*			*R = .473* *R^2 = .224* *adj R^2 = .219*			*R = .478* *R^2 = .229* *adj R^2 = .224*		
	Unique = 10.6% *Shared = 7.1%*			*Unique = 15.8%* *Shared = 6.6%*			*Unique = 14.7%* *Shared = 8.2%*		

[a]n = 651 *$p < .05$

[b]Global Severity Index of the Brief Symptom Inventory
[c]Coopersmith Self Esteem Inventory
[d]Trauma Symptom Inventory
[e]Unstandardized regression coefficient
[f]Standardized regression coefficient
[g]Squared partial correlation

regression analysis.

Table 30

Statistics for the Multivariate Regression Analyses of Broad Maltreatment Forms on Each Measure of Psychological Functioning -- Male Subjects[a]

Form of Maltreatment	BSI[b]			CSEI[c]			TSC-40[d]		
	B[e]	β[f]	sr^{2}[g]	*B*	β	sr^2	*B*	β	sr^2
Psychological Maltreatment	2.641	.584	.155*	-101.31	-.570	.148*	70.16	.546	.136*
Physical Abuse	-.820	-.201	.018*	34.43	.215	.021*	-18.08	-.156	.011*
Sexual Abuse (Parental)	-.033	-.004		-13.17	-.037		8.12	.031	
Sexual Abuse (Non-parental)	.563	.117	.012*	-7.86	-.041		27.61	.201	.036*
Intercept	-4.918			279.77			-152.92		
	R = .487 R^2 = .238 *adj* R^2 = .232 *Unique* = 18.6% *Shared* = 5.2%			*R* = .456 R^2 = .208 *adj* R^2 = .202 *Unique* = 17.1% *Shared* = 3.7%			*R* = .526 R^2 = .277 *adj* R^2 = .271 *Unique* = 18.4% *Shared* = 9.3%		

[a]n = 528 *$p < .05$

[b]Global Severity Index of the Brief Symptom Inventory
[c]Coopersmith Self Esteem Inventory
[d]Trauma Symptom Inventory
[e]Unstandardized regression coefficient
[f]Standardized regression coefficient
[g]Squared partial correlation

Psychological Symptoms

For the BSI, the overall regression analysis was statistically significant for females ($F_{(4,646)} = 34.76$, $p < .0001$) and for males ($F_{(4,523)} = 40.73$, $p < .0001$). Whereas only Psychological Maltreatment was associated with statistically significant unique variance in psychological symptom status for females (accounting for 9.9% of the 10.6% of unique variance and 17.7% of total variance), both Psychological Maltreatment and Physical Abuse were uniquely associated with significant variance for males. As the squared partial correlation coefficients reveal however, Psychological Maltreatment was uniquely associated with 15.5% of the 18.6% of unique variance and 23.8% of total variance in males' BSI scores whereas Physical Abuse, in contrast, was uniquely associated with only 1.8% of variance.

The negative beta weight associated with Physical Abuse, furthermore, in contrast to the positive coefficient observed for this variable in the bivariate regression analyses, is suggestive of significant redundant variability between Psychological Maltreatment and Physical Abuse. Specifically, it appears that Physical Abuse serves as a "suppressor variable" in the regression equation predicting psychological symptom status. This is apparently a result of the fact that psychological maltreatment is so much better a predictor of psychological

symptomatology than is physical abuse (e.g., Darlington, 1990). It is noted that physical abuse appears to play a similar role as a suppressor in the regression equations predicting self-esteem and trauma symptomatology both for females and males.

Self-Esteem

For the CSEI, the overall regression analysis was statistically significant for females ($F_{(4,646)} = 46.62$, $p < .0001$) and for males ($F_{(4,523)} = 34.40$, $p < .0001$). Both Psychological Maltreatment and Physical Abuse were uniquely associated with self-esteem in females and males. As the squared partial correlation coefficients indicate however, Psychological Maltreatment accounted for 14.9% of the 15.8% unique variability and 22.4% total variability in females' self-esteem scores, and Physical Abuse accounted for only .8% of unique variability. Similarly, Psychological Maltreatment was associated with 14.8% of the 17.1% of unique variability and total 20.8% variability in males' self-esteem scores, and Physical Abuse was associated with only 2.1% of unique variability for males.

Trauma Symptoms

For the TSC-40, the overall regression analysis was significant for females ($F_{(4,646)} = 47.90$, $p < .0001$) and for males ($F_{(4,523)} = 50.10$, $p < .0001$). For both females and males Psychological Maltreatment,

Physical Abuse, and Sexual Abuse by a Non-Parent were each uniquely associated with significant variability in trauma symptomatology. Only Sexual Abuse by a Parent did not contribute unique variance to TSC-40 scores for females or for males. As the squared partial correlation coefficients indicate, Psychological Maltreatment was associated with 12.2% of the 14.7% unique and 22.9% of total variability in females' TSC-40 scores. Physical Abuse and Sexual Abuse by a Non-parent were uniquely associated with only 1% and 1.3% of unique variability in females' TSC-40 scores, respectively. For males, Psychological Maltreatment was associated with 13.6% of the 18.4% unique variability and 27.7% of total variability in TSC-40 scores. Physical Abuse and Sexual Abuse by a Non-parent were uniquely associated with 1.1% and 3.6% of variability in males' TSC-40 scores, respectively.

DISCUSSION

The findings of the present study can be divided into three main areas: (1) characteristics and integrities of the maltreatment subscales created; (2) prevalence of the forms of maltreatment assessed; and (3) relationships among maltreatment variables and measures of psychological functioning.

Maltreatment Subscales

A major undertaking of this study was the creation of several subscales of items that represent parental behaviors thought by professionals to constitute distinct forms of psychological maltreatment of children. The creation of subscales representing physical and sexual forms of child maltreatment was a related task.

Based on a careful process that included selecting examples of the various forms of maltreatment both from the professional literature and from my clinical experience, and then submitting these items to experienced clinicians for review, the 12 Psychological Maltreatment subscales, the four Sexual Abuse subscales, and the Physical Abuse Scale created for this study were thought to have good content validities. Results from the reliability analyses revealed that these subscales all have high internal consistencies. The Psychological Maltreatment subscales, *Corrupting* and *Physical Neglect*, however, evidenced lower internal

consistencies relative to all other subscales. This appears due in part to the comparatively lower frequencies with which students positively endorsed the items comprising these subscales, a problem that also seems to have affected later multivariate analyses. It is also likely that the *Corrupting* and *Physical Neglect* constructs are more complex and difficult to circumscribe than the other forms of maltreatment assessed. Additional research with these measures, perhaps with samples more representative of the general population than that used in the present study, are clearly indicated to better understand the complexity of the constructs they represent.

Once subscales were determined to have good content validities and high internal consistencies, the next task was to test the efficacy of a model in which the various forms of Psychological Maltreatment assessed are, indeed, considered characteristically distinct phenomena. As discussed in some detail in the literature review of this paper, several child development professionals have suggested that psychological maltreatment consists of a number of subforms of parental behaviors, similar to those assessed in the present study (e.g., Baily & Baily, 1986; Garbarino *et al.*, 1986; Hart *et al.*, 1987). A similar model with respect to sexual abuse, based on findings that indicate there might be qualitative

differences between noncontact and contact forms of this abuse type (e.g., Peters, Wyatt, & Finkelhor, 1986) was also tested.

Results from the present study failed to support these models. Whereas factor analytic procedures were successful in discriminating broader forms of maltreatment from one another (e.g., psychological maltreatment from sexual abuse), these procedures were not successful in discriminating subforms of psychological maltreatment from each other or subforms of sexual abuse from each other.

In the principal components analysis of all maltreatment subscales, the finding that the Physical Abuse Scale loaded uniquely on the first factor along with Psychological Maltreatment subscales is not particularly surprising, given that psychological maltreatment typically is a large component of physical abuse. For example, verbal threats, degrading remarks, controlling behaviors, and comments indicating parental rejection of the child often accompany and intensify acts of physical abuse. In fact, it would be difficult to imagine physically abusive acts occurring in complete isolation from acts of psychological maltreatment.

That *Corrupting* and *Physical Neglect* did not appear uniquely associated with any one factor is also not surprising, given the relatively poorer internal consistencies of these measures. To the extent that results of the principal components analyses regarding the *Corrupting*

and *Physical Neglect* subscales might be valid, however, it is conceivable that these forms of maltreatment share important elements with sexual abuse. For example, sexual abuse of children might be considered a severe form of corrupting behavior. Physical Neglect might bear an important relationship to sexual abuse with respect to the severity of disregard for the well-being of child demonstrated by the parent. Another possibility is that neglect by one parental figure might place a child at risk for sexual abuse by another.

In general, given the rather low frequencies of endorsement of all maltreatment items in the present sample (and the resulting low variability in the subscale measures), the relative failure of principal components analyses to separate the various subscales of Psychological Maltreatment and those of Parental Sexual Abuse was not unexpected and does not necessarily have implications for non-student populations. For a sample of clinical outpatients or inpatients, or for a prison inmate population, for example, childhood maltreatment histories would be expected to be more prevalent, with the maltreatment acts experienced more severe and varied among individuals (Briere, 1992a). With such samples, if greater variability among individuals was observed with respect to reported maltreatment experiences, factor structures among the

various forms of maltreatment assessed could be expected to emerge that are different from those observed in the present study.

Results from the present study, then, fail to substantiate for a very limited population (i.e., undergraduate university students) that various subforms of psychological maltreatment are unique from one another and that various subforms of sexual abuse are unique from one another. The findings point up the importance of investigating the maltreatment experiences of different populations and examining these results for evidence of similarity or divergence of factor structures obtained. The pattern of findings that results will undoubtedly lead to a better understanding of the nature of child maltreatment, as well as its mental health correlates.

It was these considerations, and the belief that bold conclusions concerning the existence of subforms of maltreatment should not be made at this preliminary stage of investigation, that led me to treat the theoretically different subforms as distinct in some of the multivariate procedures employed in this study. I believe that this approach will better serve comparison of these data with findings from future studies, wherein differences among subforms of maltreatment might, in fact, be discovered.

Prevalence of Maltreatment

As discussed in an earlier section, there has been little consensus historically among professionals working and conducting research in the area of child maltreatment, or among the general public, about which parental behaviors constitute child maltreatment and, equally important, how frequently these behaviors must occur in order to be classified as maltreatment. Considerable progress has been attained on this front with respect to sexual abuse, at least when considering sexual contact between an adult or other older person and a child. For example, child protection laws decree that sexual abuse has occurred in such situations and there is also general consensus among researchers that such acts constitute sexual abuse (e.g., Finkelhor, 1984). Agreement that sexual abuse has occurred is less easy to obtain, however, when considering sexual behavior on the part of an adult wherein the child is not physically touched (for example, exposing a child to pornography, masturbating in the child's presence, or making sexual comments about her or him).

Agreement on definitions of maltreatment or abuse becomes even more difficult to attain when one considers physical abuse. In North American and other societies, where violent treatment of children is tolerated widely in the form of corporal punishment (e.g., spanking), for example, the task of determining when physical child abuse has occurred

tends to become one of determining where *punishment* ends and *maltreatment* begins.

As detailed in the literature review of this paper, determining whether psychological maltreatment has occurred is a particularly onerous task. Compared with sexual and physical forms of abuse, psychological maltreatment is thought to be more insidious, consisting of more subtle negative behaviors occurring over longer periods of time. Clearly, it is more difficult for one to obtain objective evidence or to observe tangible signs of psychological maltreatment such as those that might result from physical abuse or contact sexual abuse.

For these reasons, I reported frequency data in some detail for the various forms and subforms of maltreatment. It is hoped that this will facilitate comparison of the present data set with findings from other studies by allowing various definitions of maltreatment to be applied. By considering the maltreatment variables in multivariate analyses as continuous rather than dichotomous, furthermore, an arbitrary decision about which subjects should be considered maltreated and which should not was avoided. It is noted that the efficacy of considering maltreatment variables as continuous is indicated by the findings of linear relationships between these variables and each of the measures of psychological adjustment.

For purposes of describing the data, however, it seems reasonable to choose a point at which concern might be raised about the frequency with which subjects experienced maltreating parental behaviors during childhood. Because of the qualitative differences among the various broad forms of maltreatment, a different level of frequency might be chosen for each at which a given subject might be considered to have been maltreated.

Sexual abuse

With respect to sexual abuse, it is well-accepted that this form of maltreatment has occurred when even a single instance of sexual contact, ranging from fondling of genitals to sexual intercourse, takes place between an adult or other older person and a child. Using this criterion, as many as 49% of female and 33% of male university students in the present sample were sexually abused prior to age 18. In total, 12% of females and 14% of males were sexually abused by a parental figure, whereas 45% of females and 26% of males were abused by a person other than a parental figure. It appears that approximately 8% of females and 7% of males were sexually abused by *both* a parental figure and a non-parental figure. It is interesting to note that, whereas females were more likely than males to have been sexually abused by a non-

parent, females and males appear to have been sexually abused with equal frequencies by parental figures.

As discussed earlier, some controversy exists over whether sexually abusive behaviors directed toward a child but which do not involve physical contact with her or him (e.g., an adult exposing genitals to a child) should be combined with "contact" forms of abuse when considering sexual abuse to have occurred. I have taken the position along with other researchers (e.g., Russell, 1986) that, although contact and noncontact forms of sexual abuse both can have serious negative consequences for the child, the behaviors that constitute each are sufficiently different in level of threat posed to the child that they should be assessed and reported separately.

Following the same argument, I have gone one step further by separating verbal harassment and invitations of a sexual nature (and classifying them as sexual harassment) from "noncontact" and "contact" sexual behaviors. I reported the data for these subforms of sexual abuse both separately and combined, however, in order to maximize comparability of the present findings with those of other studies.

If sexual abuse was defined broadly, as some have done, to include "noncontact" and "harassment" forms along with "contact" behaviors, the present data suggest that the rates of sexual abuse among

university students might be as high as 52% for females (21% committed by parental figures) and 37% for males (20% committed by parental figures). Because the present study assessed noncontact and harassment forms of sexual abuse as perpetrated by parental figures only, data are unavailable for these forms of abuse as perpetrated by non-parents. It is reasonable to expect, however, that a definition of sexual abuse that also included these forms of behavior by non-parents would yield even higher overall prevalence rates of sexual abuse. Nonetheless, the rates of sexual abuse reported by participants in the present study are very similar to those reported by Russell (1986), who reported that 54% of females had experienced sexual abuse (38% when noncontact forms were excluded), and Wyatt (1985), who reported that 62% of females had experienced sexual abuse (45% when noncontact forms were excluded). It is noted that, of the various major studies reporting sexual abuse prevalence, the definitions of sexual abuse used in the Russell study and the Wyatt study were most similar to those used in the present study and, thus, results would be expected to be readily comparable.

The similarity of the findings discussed above might suggest that prevalence rates of sexual abuse among university students are similar to those reported among members of the general population. Strictly speaking, this might be accurate. Differences are likely with respect to

the number and severity of sexually abusive acts experienced, however. In the present sample, for example, of those female subjects who reported parental contact sexual abuse, 66% experienced less severe forms of sexual abuse such as fondling through clothing whereas 34% experienced sexually abusive acts that might be considered to constitute severe forms of sexual abuse such as digital penetration, oral-genital contact or penile penetration. These results are in contrast to those reported by Russell (1986), which indicate that 64% of subjects in her sample experienced the more severe forms of intrafamilial sexual abuse.

It is possible that differences might also exist between the number of times subjects in the present study experienced sexually abusive acts relative to subjects in the Russell study or the Wyatt study. Among sexually abused subjects in the present sample, the modal response to the frequency of sexual abuse incidents experienced was "once or twice." Unfortunately, data were not reported in the Russell study or the Wyatt study that would make such comparisons possible.

Physical Abuse

Overall, 66% of subjects in the present sample reported having experienced at least one occurrence of physical violence at the hand of a parental figure. This a rate identical to that reported by Runtz (1992), who also used an undergraduate student sample, but whose scale was

comprised of items that were somewhat different from those used in the present study. As discussed earlier, however, there is poor consensus about the point at which physically violent behavior directed toward children should be considered abusive. For some, the critical factor in determining this might be the nature of the behavior itself; for others the frequency with which the behavior occurs might be more important. Thus, the data are reported here in such a way as to allow application of various criteria to the definition of physical abuse. For example, if physical child abuse were to be defined by the occurrence of even a single occurrence of hitting a child with an object (a legal definition of aggravated assault), the prevalence rate suggested by the present data is 41%. If more strict criteria were imposed, such as hitting a child hard enough to cause bruising, swelling, or bleeding, or punching with a closed fist, the rates would be 25% or 10%, respectively. For those who might consider the frequency of physically violent behavior experienced crucial to the definition of physical abuse, 31% of the present sample could be considered physically abused if the criterion chosen was experiencing one or more behaviors comprising the Physical Abuse scale *sometimes*, *often*, or *very often* during childhood. In fact, this criterion would correspond to that which would identify subjects who scored above the median on the Physical Abuse Scale.

If the frequency criteria were more strict, such that abuse was considered to have occurred only if one or more of the violent parental behaviors were experienced *often* or *very often*, the rate of physical abuse would be 8%. Finally, if one were to consider the items that comprised the Severe Physical Abuse Scale (not used in the multivariate analyses), 8% of subjects reported one or more of these behaviors to have occurred at least once during childhood. In itself, such a rate seems alarming, considering the heinous nature of these behaviors (e.g., burning or scalding, using a weapon to harm a child, physical torture). Consistent with findings from other studies (e.g., Graziano & Namaste, 1990; Runtz, 1992), females and males in the present study reported similar rates of childhood physical abuse.

The paucity of data available concerning the prevalence of physical abuse makes comparisons difficult. For example, results are often cited from the 1985 National Family Violence Survey (Gelles & Straus, 1988; Straus & Gelles, 1986), which used measures of physical abuse very similar to those of the present study. The Family Violence Survey results suggest an annual incidence rate of 23 per 1,000 children of "very severe violence," which the researchers defined as kicking, biting, punching, beating up, burning or scalding, threatening with a knife or gun, or using a knife or gun. The rate increased to 110 per

1,000 children when hitting or trying to hit with an object such as a stick or belt (i.e., "severe violence") was included.

Whereas rates from the present study might appear higher than those discovered in the Family Violence Study, comparisons between these studies are not appropriate, given that the latter study assessed violent parental behaviors over the previous year, as opposed to assessing these during the entire course of the respondent's childhood. Comparability between these studies is limited further because the National Survey determined parental abuse rates by surveying parents (by telephone) about their own behaviors, as opposed to surveying children about violence they experienced.

At least one study that assessed physical abuse by respondents' retrospective reports of childhood experiences, however, found a prevalence rate lower than that discovered in the present study. In their study of the use of physical force in child discipline, Graziano and Namaste (1990) found that 10.6% of college students experienced physical punishment that was "severe enough to cause welts or bruises" (p. 455). This rate is in contrast to that of the present study where 25% of participants reported having been spanked hard enough to receive such injuries. Again, caution should be exercised when making comparisons among isolated findings in a sparse literature. The different rates

obtained in these studies might be due to such factors as sample differences, measurement differences, or both. It is evident that additional research in the area of childhood physical abuse is required to clarify both issues of definition and rates of prevalence.

Psychological Maltreatment

Similar to the case with some forms of physical abuse, with psychological maltreatment there is no clear point at which aversive parental behaviors unequivocally could be considered to constitute abuse. Also like physical abuse, behaviors thought to represent psychological maltreatment appear woven into the fabric of parents' daily interactions with their children. Unlike other forms of maltreatment, however, there is seldom tangible physical evidence that psychological maltreatment has occurred. This makes the establishment of objective criteria for psychological maltreatment considerably more difficult to achieve. In addition, psychological maltreatment by its nature is more likely than the other forms of maltreatment to be defined by the cumulative emotional effects of an ongoing, long-term pattern of aversive parental interaction with the child. This implies that, at least for some forms of psychological maltreatment, greater frequencies of these behaviors will be tolerated over time in our culture, relative to other forms of maltreatment.

Although, technically, it might be accurate to consider a child psychologically maltreated if he or she experienced a single verbal put-down by a parent, for example, there likely would be little practical utility in doing so. An isolated occurrence of psychological maltreatment in the larger context of a parent's otherwise warm and loving relationship with a child would probably be inconsequential. This is in marked contrast to sexual abuse and even some types of physical abuse, where even isolated abusive incidents can have considerable consequences for the child's immediate and subsequent emotional well-being (e.g., Russell, 1986).

It is understandable, therefore, that psychological forms of maltreatment are seldom reported to child protection agencies or perhaps even confronted seriously within North American culture; in many respects, a certain level is probably considered tolerable, perhaps even normal. It should be of little surprise, then, that over 99% of university students in the present sample reported having experienced at least one occurrence of psychologically maltreating behavior during childhood at the hand of a parent. If one considers higher frequencies of occurrence of psychological maltreatment, however, as many as 63% of subjects reported having experienced this form of maltreatment *often* or *very often*, whereas more than one-third of participants reported having

experienced some form of psychologically maltreating behavior *very often* during childhood. Such findings seem alarming and, to the extent that they are valid, suggest that for a large number of children psychological maltreatment by their parents is not a rare phenomenon. Rather, they raise grave concern about the manner in which children might be treated in our culture by their parents. When examined separately, the forms of psychological maltreatment that appear to have been experienced most frequently during the early lives of subjects in the present sample are *Controlling or Stifling Independence*, *Verbal Terrorism*, and *Witness to Family Violence*, which were experienced *often* or *very often* by 30% or more of subjects. Ten of the 12 forms of psychological maltreatment, moreover, were experienced *often* or *very often* by over 10% of participants.

In summary, these prevalence statistics suggest that all forms of child maltreatment occur in significant proportions in our culture. Of these, psychological maltreatment appears most prevalent, and is perhaps a very common feature of parents' regular interactions with their children.

Co-morbidity of Psychological, Physical, and Sexual Forms of Maltreatment

An issue seldom addressed in studies of childhood maltreatment concerns the extent to which various forms of maltreatment occurred

together in the experience of a given individual. One reason for this, of course, is that the majority of studies in this area have tended to focus on a particular form of maltreatment to the exclusion of others. This issue is not only one that can be informed by the present data, but is an important one with respect to the claim by some writers (e.g., Garbarino *et al.*, 1986; Hart *et al.*,1987) that psychological maltreatment is the "core component" of child maltreatment.

The findings discussed above with respect to prevalence of the various forms of maltreatment indicate that, compared with physical abuse and sexual abuse, psychological maltreatment is more widespread and occurs with greater frequency. This is important, but if psychological maltreatment is indeed a core component of the other forms, then it should also co-occur with these other forms to a high degree and should also be shown to be a central feature of them. Unfortunately, it cannot be determined from the present data whether psychological maltreatment occurred at the same time as and was in fact a central component of physical and sexual forms of abuse. Results indicate, however, that psychological maltreatment did in fact occur more frequently among individuals who were physically abused (78%) than among those who were not (61%), and among those who were sexually abused (85%) than among those who were not (50%).

Perhaps more instructive in this regard is the fact that, whereas it was fairly common for psychological maltreatment to occur in isolation from other forms of maltreatment, physical and sexual abuse seldom occurred without concurrent psychological maltreatment. Specifically, of all subjects who reported high levels of psychological maltreatment (i.e., *often* or *very often*), 42% of these reported frequent concomitant physical abuse (i.e., *sometimes* to *often*). In contrast, of all subjects who reported frequent physical abuse, greater than 85% reported concomitant frequent psychological maltreatment. Similarly, only 16% of subjects who reported frequent psychological maltreatment also reported at least one incident of sexual abuse, whereas 78% of sexually abused subjects reported frequent psychological maltreatment.

Whereas such data do not provide compelling evidence that psychological maltreatment is a central feature of physical and sexual abuse, they do provide support for this hypothesis. It is clear that many issues would need to be confronted to adequately address so complex an issue, however. For example, definitions of all forms of maltreatment would need to be scrutinized more carefully and the degree to which psychological maltreatment occurred *simultaneously* with other forms of maltreatment would need to be assessed. Perhaps most important, subjects' perceptions of and attributions for the maltreating acts would

need to be examined. A similar act of physical abuse or even sexual abuse, for example, might be interpreted quite diversely by different individuals, depending on conditions both external and internal to them. An individual who is hit by a parent therefore, regardless of the circumstances, might consider the parental act one of rejection or even degradation. Another individual who perceives herself or himself as deserving of physical punishment, in contrast, might view the parental act as justified or even a demonstration of love or concern for the child. Likewise, it is conceivable that a particularly manipulative parent might be able to convince a child that a sexually abusive act is motivated by love or regard for her or him.

Sex Differences Among Measures of Psychological Functioning

The findings of the present study suggest, at least among university students, that females experience poorer levels of psychological adjustment than do males. Compared with results from other studies that have utilized these measures of adjustment (i.e., the BSI, CSEI, and TSC-40), the present sex difference results appear novel and warrant comment.

A number of factors might account for the novelty of these findings. First, few studies are available that utilized these measures with a university student sample. Of those that have, there has been a

tendency to study female subjects only (e.g., Elliott & Briere, 1992; Runtz, 1987) or, alternatively, to study both females and males but with considerably smaller sample sizes than that of the present study (e.g., Cochran & Hale, 1985; Cole, 1986; Coopersmith, 1990).

Given the moderately low effect sizes discovered in the present study of differences between females' and males' scores on the measures of psychological functioning, it is likely that other studies (with their considerably smaller sample sizes) simply lacked the statistical power necessary to detect such differences. Alternatively, the sex differences observed in the present study could be artifactual, perhaps the result of factors such as sampling bias.

To the extent that the present sex difference findings might be valid, however, they are consonant with findings from community surveys that indicate adult women are more likely than men to report extreme levels of nonspecific psychiatric distress (Kessler, 1989). A number of arguments have been advanced to attempt to account for such sex differences, including the contention that, relative to males, females are exposed to more role-related chronic stress. For example, in the various greater roles of support women tend to play in our society relative to men, related stresses and demands might lead to greater levels of psychological impairment. In addition, women might be more

vulnerable than males to the effects of chronic stress because of factors such as ineffective coping strategies or disadvantaged access to means of social support (e.g., Chesler, 1972; Kessler, 1989).

Some writers have suggested as well (e.g., Walker, 1979) that greater levels of symptomatology might exist among females relative to males because of the greater oppression of females in our society. Thus, various factors such as unequal distribution of power and resources, along with the greater potential for victimization of women relative to men (e.g., battering, sexual harassment, sexual assault) might combine to produce a greater risk for females in our society to develop psychological symptoms and to experience cognitive distortions such as self-blame and low self-esteem.

Alternatively, it is possible that, in fact, females and males do not truly differ in the extent to which they experience psychological symptomatology, but rather they differ in their willingness to admit to such symptoms. For example, due to complex factors such as sex-role stereotyping, females in our culture might be expected to be more symptomatic and thus might more readily admit to experiencing psychological symptoms. There might be greater stigma in our society, however, associated with the reporting of symptoms by males which might be viewed as signs of "weakness." Clearly additional research in

this area is required to begin to sort out whether differences observed among levels of psychological adjustment reported by females and males represent real differences and, if so, what factors might best account for these differences.

Relationships Among Maltreatment Variables and Measures of Current Psychological Functioning

Consistent with findings from other studies, data from the present study reveal strong relationships among variables that assessed the occurrence of maltreatment during respondents' childhoods and current measures of their levels of psychological functioning. In addition to the demonstration that an overall relationship exists among the various forms of maltreatment assessed and measures of psychological functioning, several specific relationships were also indicated and these will be summarized in turn.

Psychological Maltreatment

The experiences during childhood of higher levels of each of the 12 forms of psychological maltreatment assessed were found to be associated significantly with greater current levels of psychological and traumatic symptomatology and lower self-esteem. The findings indicate further that these relationships are not trivial, given that most subforms of psychological maltreatment (when effects of others were not

controlled) were found to explain better than 10% of variability in psychological and trauma symptomatology and self-esteem. Some subforms of psychological maltreatment, furthermore, (e.g., *Controlling and Stifling Independence*) were found to explain better than 20% of this variability.

The relatively high inter-correlations among the various psychological maltreatment subscales and the failure of factor analytic procedures to discriminate among the various forms of psychological maltreatment, however, suggest that, at least for university students, many forms of psychological maltreatment occur together such that specific mental health correlates of particular forms might be undiscernible. For such populations, therefore, it might be more meaningful to examine relationships among psychological maltreatment and psychological functioning, with psychological maltreatment treated as a unitary phenomenon (as was done in the present study). This might be true especially when comparing the mental health correlates of psychological maltreatment with those of physical and sexual abuse.

Whether used as separate subscales or as a summative measure, however, the very strong association of the psychological maltreatment measures with measures of psychological functioning in the expected directions suggest evidence for the construct validity of these subscales.

To the extent that the greater levels of psychological disturbance observed in self-reported victims of psychological maltreatment might be consequences of the maltreatment, the results suggest that these effects are broad, affecting levels of general distress, traumatic-specific sequelae, and cognitive functioning. Additional research with the Psychological Maltreatment measures is clearly indicated, wherein additional and more comprehensive measures of psychological functioning are included to better assess the range of sequelae that are correlated with experiences of psychological maltreatment.

Physical Abuse

Subjects' reports of having experienced physical abuse during childhood, although also related significantly to higher symptomatology and lower self-esteem in adulthood, were less strong predictors of these measures of psychological functioning than were most subforms of psychological maltreatment. Nonetheless, for females and males, higher levels of physical abuse accounted for an average of about 6% of variability in each of the measures of psychological symptomatology, trauma symptomatology, and self-esteem.

Given the psychological trauma that is thought to result from the experience of physical violence, the lesser role of physical abuse in predicting poor psychological adjustment might seem puzzling. One

possibility for this finding is that many types of parental physical violence could be viewed by children as "discipline" and, as such, might not hold the same emotional impact as some forms of psychological maltreatment, wherein the mental cruelty and disregard for the child's emotional welfare might be more apparent. Obviously, in order to gain better insight into such a hypothesis, one would need to assess children's perceptions of and attributions for the maltreating acts.

Sexual Abuse

The findings with respect to sexual abuse were less compelling than those for psychological maltreatment and physical abuse. *Sexual Harassment* was the only form of sexual abuse found to be related significantly to all three measures of psychological functioning.

Sexual Abuse Without Physical Contact was found to be related to all measures of psychological functioning except self-esteem for females. Somewhat surprisingly, *Sexual Abuse With Physical Contact* was not found to be related to psychological symptomatology either for females or males and was unrelated to self-esteem in females. *Non-parental Sexual Abuse*, although unrelated to self-esteem in females and males was related to psychological symptom status and trauma symptom status for both sexes. In all cases where significant relationships were observed, however, relationships appear weak, especially with respect to

psychological symptoms and self-esteem, where sexual abuse accounts for only 2% or 3% of variability in these measures. Relationships among sexual abuse and trauma symptoms appear somewhat more meaningful, with between 3% and 8% of variability accounted for in the latter by the various subforms of sexual abuse.

These findings suggest the importance of assessing a variety of possible mental health correlates of the many forms of child maltreatment. For example, the data indicate that, unlike psychological and physical forms of maltreatment, the effects of sexual abuse, at least in a university student sample, might be more specific, bearing greater relationship to trauma-related symptoms than to more general psychological sequelae or cognitive functions.

A problem which limits the generalizability of these findings, of course, concerns the frequency with which sexual abuse occurred in the present sample. Whereas a large number of students reported that they had experienced sexually abusive behaviors during childhood, these behaviors generally were not experienced frequently, nor did they include to a great extent the most severe forms of sexual abuse, such as intercourse. As discussed earlier, sexual abuse experienced by subjects in the present sample was likely not as frequent with respect to the number of separate incidents endured nor as severe in form as that which

might have been experienced by members of clinical populations or even the general population. A possible reason for this is that correlated factors (e.g., extreme family disorganization) and possible effects (e.g., severe psychopathology) of more severe forms of abuse might "select out" these individuals so harshly treated from the population of university students.

The current findings with respect to sexual abuse, therefore, might well be limited to individuals who experienced infrequent abuse (perhaps a single incident) and those who experienced less severe abusive acts, ranging on a continuum from fondling through one's clothing to intercourse. As suggested by the clinical literature (e.g., Browne & Finkelhor, 1986), it is expected that, among individuals who experienced more severe or frequent sexual abuse, stronger relationships among these abusive experiences and poor levels of psychological functioning would be observed.

Unique Associations of Maltreatment Forms With Psychological Adjustment

At least among university students, the bivariate results implicate the greater importance of a history of childhood psychological maltreatment, relative to physical abuse and sexual abuse, to levels of adult psychological functioning, and in turn suggest the greater

importance of physical abuse over sexual abuse in this regard. Although compelling, these results are somewhat simplistic, given that various forms of maltreatment seldom occur in isolation.

Results from the multivariate regression analyses, therefore, which were conducted to shed light on the unique contributions of the various forms of maltreatment to psychological functioning, appear more meaningful in assessing the relationships among childhood maltreatment and subsequent psychological adjustment. Conducted with psychological maltreatment treated both as consisting of subforms and as a unitary construct, these results provide compelling evidence for the critical role of psychological maltreatment, compared with physical and sexual abuse, in the prediction of psychological and trauma symptomatology and poor self-esteem. For example, whereas psychological maltreatment accounted for greater than 10% of unique variance in psychological symptom status, other forms of maltreatment (i.e., physical abuse, sexual abuse by a parent, and sexual abuse by a non-parent) each accounted for less than 2%. Similarly, psychological maltreatment accounted for approximately 15% of unique variance in self-esteem, whereas the other broad forms of maltreatment each accounted for 2% or less of this variance. This pattern held for trauma symptoms, with psychological maltreatment accounting for greater than 12% of unique variance and

other forms accounting for less than 4%. In fact, contact sexual abuse by a parent did not contribute significant unique variance to any of the measures of psychological functioning. Sexual abuse by a non-parent contributed unique variance only to trauma symptoms for both females and males and to psychological symptoms for males.

Physical abuse, while contributing unique variance to all measures of psychological functioning except psychological symptoms for males, did not contribute greater than 2% of unique variability for any measure of psychological functioning. The fact that physical abuse appears to have best served as a suppressor variable in the multiple regression equation predicting psychological adjustment, furthermore, provides additional compelling evidence for the central role that psychological maltreatment might play, relative to other forms of maltreatment, in determining levels of psychological adjustment.

Limitations of the Present Study

A number of considerations suggest that the results of the present study should be viewed with a degree of caution. First, the fact that the sample was comprised entirely of undergraduate university students seriously limits the generalizability of the findings. As other researchers have suggested, university student samples might differ from other samples, such as members form the general population and clinical

patients, on demographic variables such as IQ and social class (e.g., Finkelhor & Baron, 1986), but also with respect to extent and severity of childhood maltreatment experienced (e.g., Briere, 1992a) and levels of psychological adjustment (e.g., Cochran & Hale, 1985).

The apparent homogeneity of the present sample with respect to factors such as social class, furthermore, might have compromised results of analyses that sought to determine whether such factors were associated with reports of maltreatment or symptomatology. As pointed out by Finkelhor and Baron (1986), "students are not the best samples to test for social class relationships" (p. 68). As a result, the findings of the present study that indicate demographic factors such as social class are unrelated to maltreatment might not have implications for samples that are more heterogeneous with respect to demographic variables. It is noted in this regard that, although the present findings with respect to the absence of a relationship between social class and sexual abuse are congruent with those of the most representative community surveys (e.g., Finkelhor, 1984; Russell, 1986), the present findings contradict results of studies that discovered strong relationships between social class and the occurrence of physical abuse (e.g., Pelton, 1981; Straus, Gelles, & Steinmetz, 1980).

It must also be pointed out that, even among university student samples, the present sample might not be representative as a result of factors such as recruitment procedures. For example, the process for recruiting subjects for the present study was not a random one. Although students were not informed upon recruitment that the study was concerned with maltreatment experiences, they were told that the study required that they complete a survey of family experiences that contained questions of a personal nature. Students were then free to decide whether they wished to participate in the present study. It is conceivable that the information provided to them might have influenced their decisions to participate, perhaps "selecting out" those students who felt most uncomfortable about reporting highly personal information concerning their family experiences. Alternatively, some students who perhaps judged themselves to have had particularly unusual family experiences might have chosen to participate as an opportunity to "tell" about these experiences.

The fact that subjects were not compelled to complete their questionnaires once they arrived for the study might also have biased the results. As discussed in the Results section, 31 subjects failed to complete a substantial portion of their questionnaires and the extent of missing data on these questionnaires made it impossible to compare these

subjects to others with respect to important variables such as extent of maltreatment or symptomatology. Although this refusal rate appears small (i.e., less than 3%), the potential for these missing data to have biased the results could be significant if, for example, only subjects who experienced the most severe forms of maltreatment or were most symptomatic refused to complete the entire questionnaire. Although such an event seems unlikely, the lack of information about these subjects precludes the drawing of conclusions about what effect missing data might have had on the present findings. In summary, the extent to which recruitment procedures and missing data might have biased the data are impossible to determine and suggest that the results should be viewed with caution.

Another concern with respect to the present data is that the analyses relied on subjects' retrospective self-reports of childhood experiences as well as their present experiences of psychological symptoms. Although it seems unlikely that subjects reported maltreatment that did not occur or symptoms they did not experience, it is nevertheless impossible to know the extent to which dishonest responding or distorted memories might, in fact, have compromised the data.

Results from analyses that included the MMPI-2 L Scale as a measure of social desirability suggest that, in general, participants did not attempt to present themselves in an overly positive light (i.e., by "faking good") by minimizing either maltreatment experiences or psychological symptoms. No measure was included in this study, however, to assess the extent to which participants might have presented themselves in an overly poor light (i.e., "faking bad"), perhaps by exaggerating symptoms or negative childhood experiences.

Contrasted with the situation where an individual might deliberately attempt to respond inaccurately to questionnaire items, the possibility must also be considered that one's recall as an adult might be impaired when reporting events experienced as a child. In this regard, the accuracy of one's recall about events that occurred some time in the past has been questioned (e.g., Menard, 1991). It is possible, for example, for one's mood to color recall of events such as in a case where an adult who is unhappy with her or his life circumstances might inaccurately attribute present misfortunes to the way he or she was treated as a child. Recall of distal events can also be influenced by powerful intrapsychic processes over which the individual might not have conscious control. High levels of psychological disturbance, for

example, might cause one to be biased in recall of discrete childhood experiences.

There is evidence in this regard that some victims of childhood maltreatment, particularly those more severely abused, can be amnesic for much or all of their victimization experiences (e.g., Briere & Conte, in press; Herman & Schatzow, 1987). Given that these individuals might also report greater psychological sequelae than abused but nonamnesic individuals (Briere & Conte, in press), positive findings with respect to associations between maltreatment and symptomatology might be diluted.

Unfortunately, methods suggested by writers such as Briere (1992b) which could minimize the extent of inaccurate reporting of maltreatment histories by subjects (e.g., independently corroborating abuse reports from other sources, restricting study to abuse cases validated by the criminal justice system) are generally untenable or impossible to implement in cross-sectional studies like the present which rely on retrospective reports by university students.

Procedures employed in the present study that might have been successful in minimizing inaccurate reports of maltreatment, however, include (a) presenting the questionnaire items to subjects in a sensitive manner by providing a rationale for conducting the study and respecting

their rights not to answer questions that they found objectionable; (b) ensuring the anonymity of participants by instructing them not to place their names on the questionnaires; (c) not providing rewards for the falsification of data (e.g., by recruiting subjects according to abuse status); and (d) using multiple specific questions to assess maltreatment experiences as opposed to few general questions.

In addition, the inclusion of a variable to assess the degree to which one form of response bias, social desirability, might have affected subjects' responses to questionnaire items permitted the determination that this was likely not the case. Use of additional variables of this type is strongly recommended for future studies so that the occurrence of a wider range of response bias (e.g., exaggeration of maltreatment experiences or symptomatology, tendency toward repression, negative attitudes toward disclosure of maltreatment) might be assessed.

Another major concern regarding the results of the present study is that the methodology used relies on correlational data and, as such, it is impossible to determine whether higher symptomatology in adulthood is the result of maltreatment experienced in childhood. Even to the extent that subjects' reports of childhood maltreatment and current levels of psychological adjustment might be accurate, a number of considerations preclude drawing causal inferences with respect to these

variables. For example, because no information was available regarding subjects' levels of psychological functioning prior to their experiences of maltreatment, there is no "baseline level" with which to compare current adjustment levels. In addition, it is likely that, in the life experience of a victim of childhood maltreatment, a large number of disturbing events might have occurred that preceded, anteceded, or even co-occurred with the maltreatment experiences, and perhaps interacted synergistically with these to determine current levels of psychological adjustment.

For example, it is possible that experiences of personal loss or trauma, such as the separation or death of one's parents might have combined to place a child at greater risk for both subsequent maltreatment and poor levels of psychological adjustment. In this regard, it has been suggested (e.g., Fromuth, 1986) that the poor levels of adjustment that seem to have resulted from experiences of childhood maltreatment, might instead have resulted from a pattern of dysfunctional family dynamics of which maltreatment could be seen as a by-product.

In the present study, an attempt was made to assess whether experiences of personal loss or trauma other than maltreatment experiences were related to maltreatment or psychological adjustment variables. Although no such relationships were indicated, the measures used to assess loss and trauma experiences were unestablished with

respect to reliability and validity, and results should be viewed with caution. Future studies of this nature should include established measures of these constructs as well as measures of other relevant constructs such as family cohesion and support.

In general, inclusion of additional variables in maltreatment studies that have been hypothesized to relate both to maltreatment experiences and psychological functioning is crucial to the scientific investigation of the many possible relationships that might exist among these variables. The use of path analytic or structural equation modeling techniques, furthermore, would allow for the testing of models that specify directionality of relationships.

A final concern with respect to the findings of the present study is that the subscales used to assess maltreatment were created for this study and, as such, are unproven with respect to such criteria as test-retest reliability and criterion validity. In addition to the study of these variables both with populations similar and diverse to that of the present, research is required wherein established scales purporting to measure the phenomena in question are also employed and their results compared.

Summary and Conclusion

The 12 subscales created to assess psychological maltreatment and those created to assess physical abuse and sexual abuse all appear to have

good content validities, construct validities, and internal consistency reliabilities. Results indicate however, that, at least among university students, psychological maltreatment is better conceptualized as a unitary construct as opposed to consisting of several distinct subforms.

Although all forms of maltreatment assessed seem to have occurred with high frequencies in the childhood experiences of the university students who participated in this study, psychological maltreatment appears to have been most prevalent, perhaps occurring in the early lives of most participants.

The findings indicate, generally, that experiences in childhood of various forms of parental behaviors thought by professionals to constitute psychological maltreatment are strong predictors of higher levels of psychological symptomatology in adulthood. To the extent that these results are valid, they may be viewed as evidence for the relatively long-term negative effects of psychological maltreatment. Experiences of physical abuse and some forms of sexual abuse also appear to be predictive of poorer levels of psychological adjustment, but to a lesser extent than psychological maltreatment.

Despite indications that the integrity of the data might have been compromised by a number of factors such as specificity of the sample, use of retrospective reports of maltreatment, and failure to assess

variables that might bear important relationships to maltreatment experiences and psychological adjustment, the findings are congruent with claims made by clinicians (e.g., Forward, 1989; Miller, 1981), and with results obtained from controlled studies conducted with maltreated children (e.g., Claussen & Crittenden, 1991; Egeland, Erickson, & Sroufe, 1983) indicating that psychological child maltreatment, along with physical and sexual forms, has negative and lasting psychological consequences. To the extent that these findings are valid and might be replicated with more diverse populations, greater recognition of the potentially serious consequences of psychological maltreatment is essential among members of the general public, as well as those agencies and individuals responsible for the planning of social policy and protection of children.

Clinically, in recognition of the important role that psychological maltreatment experiences in childhood might play in determining levels of psychological functioning in adulthood, it seems crucial that mental health practitioners assess and address psychological maltreatment experiences that their clients (both children and adults) might have experienced, at least with a quality of attention equal to that devoted to physical abuse and sexual abuse experiences.

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