

**EXAMINING LONG-TERM CORRELATES OF PSYCHOLOGICAL, PHYSICAL,
AND SEXUAL CHILDHOOD MALTREATMENT: VALIDATION OF THE
CHILDHOOD MALTREATMENT QUESTIONNAIRE**

by

Daniel Demaré

**A dissertation prepared in partial fulfilment of the
requirements for the Ph.D. degree in Clinical Psychology**

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**Examining Long-Term Correlates of Psychological, Physical, and Sexual Childhood
Maltreatment: Validation of the Childhood Maltreatment Questionnaire**

BY

Daniel Demaré

A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University

of Manitoba in partial fulfillment of the requirements of the degree

of

Doctor of Philosophy

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ABSTRACT

The Childhood Maltreatment Questionnaire (CMQ) is a retrospective-report questionnaire for adults that was created by the present author in 1992 to assess the extent to which respondents might have experienced various forms of maltreatment during childhood. The CMQ has three component questionnaires: the Psychological Maltreatment Questionnaire (PMQ), the Physical Abuse Questionnaire (PAQ), and the Sexual Abuse Questionnaire (SAQ). As the main impetus for the creation of the CMQ was the lack of a comprehensive instrument to assess psychological maltreatment, the emphasis in this course of research is on the PMQ. Findings from initial research with approximately 1,200 undergraduate university students suggested that the CMQ may be a reliable and valid measure of childhood maltreatment, although examination of additional aspects of reliability and validity was indicated. In the present study, a second sample of approximately 1,200 university students completed surveys including the CMQ, inventories of current psychological symptom status, and related measures. Surveys were re-administered to a subsample of 600 students after a 4-month time lag. Findings from reliability and correlational analyses indicate that the CMQ has strong internal consistency, temporal stability, and test-retest reliability, as well as good concurrent, convergent, and discriminant validity. Results from hierarchical multiple regression analyses (MRA) provide evidence for the incremental validity of the PMQ relative to an alternative measure of psychological maltreatment. Multivariate analysis of covariance and MRA results also indicate that a self-reported history of childhood psychological maltreatment is a relatively strong predictor of psychological symptoms reported in adulthood, and that the consistency of respondents' reports of childhood maltreatment over a 4-month lag is not affected meaningfully by their psychological symptom status.

EXAMINING LONG-TERM CORRELATES OF PSYCHOLOGICAL, PHYSICAL, AND SEXUAL CHILDHOOD MALTREATMENT: VALIDATION OF THE CHILDHOOD MALTREATMENT QUESTIONNAIRE

INTRODUCTION

The Childhood Maltreatment Questionnaire (CMQ), a retrospective-report questionnaire for adults, was created by the present author in 1992 to assess the extent to which respondents might have experienced various forms of maltreatment¹ during childhood. The CMQ is comprised of three component questionnaires: the Psychological Maltreatment Questionnaire (PMQ), the Physical Abuse Questionnaire (PAQ), and the Sexual Abuse Questionnaire (SAQ). The impetus for the creation of the CMQ was the lack of a comprehensive measure to assess childhood psychological maltreatment and, given its uniqueness in the literature, the PMQ is the central focus of the CMQ and of this course of research. The PAQ and the SAQ, comprehensive measures of physical abuse and sexual abuse, were created to complement the PMQ.

Initial research with the CMQ with a sample of approximately 1,200 female and male university students (Demaré, 1993a, 1993b; Demaré & Briere, 1994) indicated that the CMQ is a reliable and valid instrument that may prove useful in the investigation of long-term correlates of childhood maltreatment. Given these promising initial findings, assessment of additional aspects of reliability and validity of the CMQ/PMQ were indicated.

Thus, the present study was undertaken with several objectives. Of primary interest was the replication and extension of initial reliability and validity findings with the CMQ, and particularly the PMQ. Specifically, I examined internal consistency reliability, test-retest reliability and stability of maltreatment reports over a 4-month

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* (abuse) or *omission* (neglect). This convention is followed generally in the present manuscript.

lag, as well as convergent, discriminant, and incremental validity of the PMQ by examining its relationship with an alternative scale designed to measure an equivalent construct. Given encouraging findings with respect to psychometric properties, an additional important goal was to use the CMQ/PMQ to more broadly examine relationships among self-reported childhood maltreatment experiences and psychological symptom status in adulthood. Further, the test-retest design of the study afforded the opportunity to inform topical questions with respect to concerns that have been raised over the collection of retrospective reports of childhood maltreatment, such as how stable these reports might be over time, and what influence one's symptom status might have on the concordance of these reports over time (*e.g.*, Briere, 1992b; Briere & Conte, 1993; Friedrich, Talley, Panser, Fett, & Zinsmeister, 1997; Menard, 1991).

In the sections that follow, I provide an introduction to the area of childhood maltreatment research, and give an overview of critical developments and controversies that have occurred in recent years with respect to psychological maltreatment research, specifically. This is followed by a summary of the development of the CMQ, and a detailed description of the objectives, procedures, and findings of the present study.

Rationale for Studying Childhood Maltreatment

National statistics available on the incidence of child maltreatment make it clear that the problem is one of significant proportions in North America. In the U.S., for example, nearly 3 million children, or 40 per 1,000, were reported to Child Protective Service agencies as victims of maltreatment in 1998, and 66% of these were determined to require investigation or assessment (U.S. Department of Health and Human Services, 2000). It is important to keep in mind that, although these *official* statistics may be disturbing, accurate assessment of the *actual* prevalence of child maltreatment is compromised by problems of under-reporting and poor consensus about the definitions

that should be used (*e.g.*, Daro, 1988; Wachtel, 1989). Thus, it is well-accepted that child maltreatment is much more prevalent than official rates reflect (*e.g.*, Dubowitz, 1986; Straus & Gelles, 1988).

As many writers in this area have pointed out, the costs of child 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 the victims of maltreatment, and a host of so-called “psychological tragedies” for these individuals (Cicchetti & Carlson, 1989).

The consequences hypothesized to result from childhood maltreatment are many and varied. For individuals who were physically or sexually abused, these include interpersonal problems (*e.g.*, Briere & Runtz, 1990; Herman, 1981), sexual problems (*e.g.*, Friedrich, 1990; Friedrich, Beilke, & Urquiza, 1987; Jehu, Gazan, & Klassan, 1985; Maltz & Holman, 1987; Meiselman, 1978), behavior problems (*e.g.*, Conte & Schuerman, 1987a, 1987b; Friedrich, Jaworski, Huxsahl, & Bengston, 1997) and an array of psychiatric sequelae such as depression (Briere & Runtz, 1987; Brown & Finkelhor, 1986; Finkelhor, 1990; Gold, 1986; Peters, 1988), anxiety (*e.g.*, Herman, & Schatzow, 1987; Murphy *et al.*, 1988), fear (*e.g.*, Gorcey, Santiago, & McCall-Perez, 1986), personality disorders (*e.g.*, Bliss, 1984; Brown & Anderson, 1991; Coons & Milstein, 1986), dissociative disorders (*e.g.*, Friedrich, Jaworski, *et al.*, 1997; Putnam, 1993), post-traumatic symptoms (*e.g.*, Craine, Henson, Colliver, & MacLean, 1988; Linberg & Distad, 1985), somatic symptoms (*e.g.*, Friedrich & Schafer, 1995), and suicidal feelings (*e.g.*, Bryer, Nelson, Miller, & Kroll, 1987; Sedney & Brooks, 1984). Such individuals also have been found to suffer from cognitive distortions, such as guilt, self-blame, and low self-esteem (*e.g.*, Briere & Runtz, 1988; Burt & Katz, 1987; Jehu, 1989).

Rationale for Studying Psychological Maltreatment

Despite a paucity of research devoted to child psychological maltreatment, there appears to be a general perception among lay persons and professionals alike that this form of maltreatment can have both initial and long-term deleterious effects (*e.g.*, Daro & Mitchell, 1987; Hart, Germaine, & Brassard, 1987). The limited research findings available tend to support this belief, but a great number of difficulties plague research efforts and the gathering of incidence data in this area. For example, as discussed in greater detail in a later section, formal definitions of psychological maltreatment do not exist in some U.S. states or Canadian provinces and territories, and as such, reports of psychological maltreatment are not even accepted in some jurisdictions. The fact that many jurisdictions record only the primary allegation reported to Child Protective Services also means that psychological maltreatment is unlikely to be recognized officially if sexual abuse or physical abuse also are present (Daro & McCurdy, 1991).

Although empirical findings concerning the possible long-term consequences of psychological maltreatment are scarce, a number of studies with children have identified possible short-term consequences. A partial list of these includes anxious attachment, anger, frustration, aggressiveness, dependence, withdrawal, avoidance of others, negative self-evaluation, depression, anxiety, and sleep disturbances (*e.g.*, Claussen & Crittenden, 1991; Egeland & Sroufe, 1981; Egeland, Sroufe, & Erikson, 1983; Main & George 1985; Rohner & Rohner, 1980). Many of these possible consequences identified in children also have been found in the few studies conducted with adults reporting retrospectively about their childhood experiences (*e.g.*, Briere & Runtz, 1988, 1990; Engels & Moisan, 1994; Rohner, 1991). This suggests that at least some of the apparent initial effects of child psychological maltreatment also could be long-term.

Because of the relative lack of empirical data concerning the possible consequences of psychological maltreatment, several prominent writers and organizations, including the American Psychological Association (APA) focussed attention on this area, beginning in the 1980s (*e.g.*, Abeles, 1984; Garbarino, Guttman, & Seeley, 1986; Garrison, 1987; Hart *et al.*, 1987; Rosenberg, 1987). For example, the APA Council of Representatives adopted a resolution in 1984 inviting relevant groups to “explore the major issues of definition, prevention, treatment, and research” (Abeles, 1984, p. 634), and the APA Board of Social and Ethical Responsibility for Psychology determined that the problem of psychological maltreatment should be designated as a major priority (Garrison, 1987).

Despite acknowledgement of the potential seriousness of psychological maltreatment, and its designation as an important research area, progress has been slow. As a result, issues of definition, identification and research into consequences of psychological maltreatment remain in early stages of development. Although several definitions of psychological maltreatment have been formulated by various professionals and organizations, these have tended to suffer from problems such as vagueness and tautology (*e.g.*, Giovannoni, 1991a; McGee & Wolfe, 1991a). At present, there is no clear definitional consensus, and this is considered by many in the field to be the most serious impediment to progress (*e.g.*, Brassard & Hardy, 1997; Corson & Davidson, 1987; Daro, 1988; Hart, Brassard, & Karlson, 1996; Hart *et al.*, 1987; McGee & Wolfe, 1991a; O’Hagan, 1993; Vondra, Kolar, & Radigan, 1992).

Overview of the Milestones Achieved in Definitions of Psychological Maltreatment

Several definitions of child maltreatment, generally, and psychological maltreatment, specifically, have been developed for research and social policy purposes. Some of the milestones that have been achieved in definitions are reviewed in this section, especially as they pertain to psychological maltreatment.

U.S. Federal Statute

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 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.)

The broad nature of this definition has been criticized for a number of reasons, including confusion over 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 (*e.g.*, Wachtel, 1989). The difficulties inherent in applying such a definition generally in the process of identifying and prosecuting cases of child abuse are pronounced considerably when applied to psychological maltreatment in particular. For example, although the Federal statute recognized *mental injury* as a category of child abuse, no clarification was provided as to what phenomena either constitute or cause such injury.

Recent 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).

Although also somewhat vague, these definitions are noteworthy in that they attempt to describe, albeit in rudimentary ways, both behaviors that might constitute psychological maltreatment, and anticipated consequences for the child.

Another important development in the impetus to clarify and understand psychological maltreatment was the establishment of the U.S. Declaration of the Psychological Rights of the Child in 1979, in recognition of the International Year of the Child (Catterall, 1982; Hart *et al.*, 1987). 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. Directed by Stuart Hart and Marla Brassard, 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).

In 1983, the OSPRC organized an International Conference on Psychological Abuse of Children and Youth, the first major conference devoted to psychological maltreatment, which 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). The conference was organized around the following eight major domains of psychological maltreatment, based upon a comprehensive literature review: 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. (Hart *et al.*, 1987).

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 both of societal standards and professional opinion. This allows for consideration of cultural relativism and changing societal views of which acts might be *damaging*, 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. Clearly, 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 to include the following seven parental behaviors: *Rejecting; Degrading; Terrorizing; Isolating; Corrupting; Exploiting; and Denying Emotional Responsiveness*. Although Baily and Baily (1986) identified a much larger set of 16 behavior subcategories thought to represent psychological maltreatment, based on their survey of 207 protective service professionals, these have been criticized as suffering from lack of clarity and distinctness (*e.g.*, McGee & Wolfe, 1991a). For example, parental behaviors comprising one subcategory clearly overlap with those comprising another. 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 described by Baily and Baily easily can be subsumed within the major subcategories identified by the OSPRC.

Social Policy Implications

Although the passage of the U.S. Child Abuse Prevention and Treatment Act in 1974 was the first attempt to establish uniform standards for identification and management of child abuse cases, matters of definition, investigative procedures, service systems, and data collection were left to individual states (*e.g.*, Lung & Daro, 1996). In Canada, as no statute or definition of child abuse exists at a national level, child welfare and protection also falls under the jurisdiction of the individual provinces and territories, which are charged with the responsibility of drafting policies, definitions, and professional guidelines, and overseeing the provision of investigative, protective, and treatment services (Health Canada, 1994). Interestingly, across North America, some jurisdictions do not even define child abuse officially in their statutes, referring instead to broad categories such as “a child in need of protection.” For jurisdictions that have formulated child abuse definitions, these tend to vary widely. As Giovannoni (1991b) has pointed out, the only (unfortunate) commonality in the various definitions of maltreatment that have been articulated is their vagueness: “...they are particularly vague in setting the boundaries, even in abstract terms, about what is encompassed and what is not” (p.11).

In addition to diversity and vagueness in definitions of maltreatment, inconsistency in the recording and tabulation of report data limits accuracy in determining the scope of the problem. For example, not all jurisdictions classify forms of maltreatment in the same way, and some jurisdictions cannot provide data on the number of *children* reported to CPS, because they record reports based on families or

on incidents, rather than by children (Lung & Daro, 1996). In addition, collection of child abuse statistics on a national level in the U.S. has been conducted by at least three separate agencies, each of which has used somewhat different methodology. In Canada, the situation is even worse: generation of national estimates of the incidence of child abuse has been considered *impossible* until very recently because of the failure to identify “common statistical data elements” across provinces and territories (*e.g.*, Health Canada, 1994, p. 6). Only as recently as 1998, the Child Maltreatment Division of Health Canada began developing a national incidence study to coordinate the gathering of child abuse and neglect information from child welfare agencies across the country. Results from a preliminary data analysis are not expected to be released until the summer of 2000 (Health Canada, 1999, 2000).

These problems in definition and recording of overall maltreatment statistics are especially problematic for psychological maltreatment. In addition to the lack of conformity across jurisdictions, even within the same country, some U.S. states and Canadian provinces and territories do not use definitions of psychological maltreatment or even accept reports of this form of maltreatment. For those that do, psychological maltreatment is unlikely to be recorded as a primary allegation, or even as a secondary allegation when other forms of abuse or neglect are evident, thus obscuring the scope and significance of the problem (Daro & McCurdy, 1991).

Trends in the Reporting of Psychological Maltreatment

Although there are substantial difficulties in combining data across various states according to type of maltreatment, the National Committee for the Prevention of Child Abuse (NCPCA) has estimated that emotional maltreatment (NCPCA’s term) constituted 3% (reported and substantiated) of the 3,111,000 cases of child abuse reported to child protective services in 1995 (Lung & Daro, 1996). However, a review of NCPCA and American Association for the Protection of Children (AAPC) data over

a 10 to 15 year period reveals that, whereas the emotional maltreatment rates were essentially equivalent at between 8% and 9% for 1986 and 1990, there has been a steady *decrease* in the official emotional maltreatment rate since 1990.

Such a decline is puzzling, given the tremendous amount of attention that has been accorded psychological maltreatment over the past decade. In addition, incidence data provided by another national agency suggests a different trend. Specifically, the National Centre on Child Abuse and Neglect (NCCAN) has provided child abuse and neglect incidence data periodically in its congressionally mandated National Incidence Study of Child Abuse and Neglect (NIS) since 1980 (NIS-1, 1981). The NIS is considered to be the “single most comprehensive source of information about the current incidence of child abuse and neglect in the United States” (Sedlak & Broadhurst, 1996, p. v). NIS data are considered to be more comprehensive than the NCPA data because, in addition to collection of data for cases reported to CPS, NIS obtains data on children seen by community professionals who were not reported to CPS, or who were screened out of CPS report files without investigation. Moreover, since the NIS-2, for which data were collected in 1986 and 1987 and published in 1988, NIS has employed two sets of definitional standards: the *Harm Standard*, which requires an act to result in demonstrable harm in order to be classified as abuse or neglect, and the *Endangerment Standard*, which includes all children who meet Harm Standard Criteria, in addition to those not yet harmed but “included in the abused and neglected estimates if a non-CPS sentinel considered them to be endangered by maltreatment” (Sedlak & Broadhurst, 1996, p. 3).

In 1996, NCCAN released an Executive Summary report (Sedlak & Broadhurst, 1996) of data collected for the NIS-3 in 1993 and 1994 from a nationally representative sample of CPS agencies and non-CPS community professionals across 42 counties. Overall, the NIS-3 findings indicate that there has been a substantial increase in the

scope of the problem, regardless of whether maltreatment was defined by the Harm Standard or by the Endangerment Standard. For example, NIS-3 data for 1993 indicate a 67% increase in child abuse and neglect under the Harm Standard since the NIS-2 estimate, somewhat higher, but roughly in line with NCPCA findings. Total estimates of abused and neglected children under the Endangerment Standard doubled in the seven years between collection of data for the NIS-2 and the NIS-3. Unfortunately, the executive report does not provide data for emotional abuse under the Harm Standard. Data for the Endangerment Standard, however, indicate that there was a 183% increase in the number of “emotionally abused” children between the NIS-2 and the NIS-3 (*i.e.*, 532,200 in 1993 versus 188,100 in 1986).

Although hard facts are not available to explain the disparity in trends across these agencies, a number of explanations are tenable. Part of the problem likely concerns methods of data collection. For example, several states have undergone changes in their data systems over the years, and this has been offered by some state representatives as one of the reasons for fluctuations, both positive and negative, in child abuse rates (Lung & Daro, 1996). On the other hand, in explaining variation in statistics over the years, Wiese and Daro (1995) have speculated that “the shift also may reflect a change in the type of cases professionals and the public are willing to report to CPS and the classification systems used by child welfare systems in describing the reports they do receive” (p. 7).

What might this statement mean for psychological maltreatment rates, specifically? It is possible that there has been an actual *decrease* in the reporting and/or investigation of psychological maltreatment, perhaps due to unsuccessful or unsatisfactory past experiences in investigating or prosecuting cases of this form of maltreatment. Alternatively, it is also possible that the psychological maltreatment rates have remained stable (perhaps even increased), but that CPS workers have tended

to classify such cases in alternative categories. Although data are not available to substantiate either of these speculative theories, another trend in the statistics reported by the NCPCA over the years may provide some support for the latter. Specifically, whereas NCPCA data indicated that the percentage of emotional maltreatment cases dropped by one-half to one-third over a nine year period, the percentage of child abuse cases classified as "other" doubled over this same period. Thus, it is possible that some cases that previously might have been classified as emotional maltreatment have been classified more recently as *other*. If true, this would represent a disturbing trend in the recognition and identification of psychological maltreatment at an official level.

In 1996, I discussed these issues with Dr. Deborah Daro, Director of Research for the NCPCA, and she provided cautious support for the latter hypothesis:

Over the years, we have noticed that states are using a greater variety of ways to classify cases that do not fit the traditional typology we have come to rely upon. Rather than focus on type of abuse, some states focus on harm level or include a category of "suspected but undefined maltreatment" (D. Daro, personal communication, December 4, 1996).

Perhaps more disturbing, Daro's comments also supported the former hypothesis, which suggests that reporting and investigation also may have decreased to some extent over the past several years. Furthermore, she considered the *lack of clear definitions of psychological maltreatment* to be a major influencing factor in both of these likely conditions:

...a good deal of the issue is a change in what CPS will accept onto its caseloads or even will accept as a valid report. *Emotional abuse is not easily defined or documented*. In extreme cases, everyone can agree that emotional abuse and neglect harms children and should trigger public intervention. Unfortunately, CPS workers are unlikely to hear of a case before a child is harmed or begins to exhibit serious behavioral problems. And even if a report is filed before things get to this point, *the chances of CPS investigating are slim to none* (D. Daro, personal communication, December 4, 1996, emphasis added).

In summary, statistics concerning the incidence of child psychological maltreatment are problematic, and estimates of its occurrence are highly conjectural. Nationally, disturbing trends have appeared in the collection of psychological maltreatment statistics, suggesting that the lack of definitional consensus and poor conceptualization of the construct may have contributed to its marginalization, both in terms of social policy and practice. It appears that the *identification* of parental behaviors constituting psychological maltreatment is essential both to research and to social policy.

Substantive Conceptual Problems in the Definition and Identification of Psychological Maltreatment

Despite the importance of such a task, definition and identification of psychological maltreatment are considerably more complex than for other major forms of maltreatment. Several features are unique to psychological maltreatment and present particular challenges to professionals concerned with studying and defining the construct, and there are a multitude of reasons for the slow progress to date in its conceptualization and definition. Although the following is not intended to be an exhaustive list, it highlights many of the major conceptual difficulties facing professionals working in this area. Owing to the complexity of the phenomenon, there is considerable overlap of the factors considered below.

Diversity in Professional Background, Perspectives, and Goals

First, professionals concerned with the identification of child maltreatment represent a wide variety of disciplines, at minimum including law, social work, education, psychology, psychiatry, medicine, and nursing. Not surprisingly, each of these disciplines tends to be concerned with child maltreatment for different reasons, although these typically involve goals of research, social policy development, or service delivery (*e.g.*, Barnett *et al.*, 1991). As a result, not only do the various professionals

tend to approach the problem with different conceptualizations of the construct (Aber & Zigler, 1981), they often seek definitions of differing precision (*e.g.*, Giovannoni, 1991b; Toth, 1991; Wald, 1991). For example, researchers may wish to develop broad operational definitions of psychological maltreatment in an attempt to study the phenomenon in its many potential forms and dimensions of severity. The researcher may or may not be interested in informing the development of social policy. Clinicians working with victims of maltreatment also tend to be interested in broad definitions of psychological maltreatment. Policy makers and legislators, on the other hand, tend to define the construct narrowly and only in situations where there is significant and identifiable harm, because such definitions are typically used to justify coercive government intervention into family life (*e.g.*, Garbarino & Vondra, 1987; Lourie & Stefano, 1978; Wald, 1991).

Adding to the complexity, professionals within similar disciplines may differ in their approaches, as evidenced by the tendency for some researchers to focus on the study of a specific form of psychological maltreatment, such as rejection (*e.g.*, George & Main, 1979; Main & George, 1985; Rohner & Rohner, 1980), verbal aggression (*e.g.*, Ney, 1987; Straus & Gelles, 1986, 1990; Vissing *et al.*, 1991), or psychological unavailability (*e.g.*, Egeland & Sroufe, 1981; Egeland *et al.*, 1983), whereas others have taken a more comprehensive approach (*e.g.*, Brassard, Hart, & Hardy, 1993; Claussen & Crittenden, 1991; Demaré, 1993a, 1993b; Hart & Brassard, 1991a, 1991b). In a similar manner, some legislators may eschew clear and precise legal definitions, in favor of vague definitions that allow substantial breadth for interpretation by Child Protective Service investigators or the judiciary (*e.g.*, Lourie & Stefano, 1978; Vondra *et al.*, 1992; Wald, 1991). Given such diversity in goals and approaches, it is not surprising that “consensus on a definition acceptable to all has been slow to emerge” (Toth, 1991, p. 104).

Problems in the Substantiation of Psychological Maltreatment

Because its consequences are emotional or psychological in nature, and not readily apparent, it may be quite difficult to determine when psychological maltreatment has occurred. Unlike physical abuse and sexual abuse, physical evidence almost never remains to substantiate the occurrence of psychological maltreatment. The psychological and emotional sequelae hypothesized to result from psychological maltreatment are very difficult to establish in general (*i.e.*, predictive) terms, and perhaps are even more difficult to prove in a specific case, such as might be required by the judicial system. Moreover, such sequelae seldom occur only as a result of maltreatment. As Garbarino *et al.* (1986) have pointed out, there are many possible origins for maladaptive personality development in children, and “emotionally disturbed children are not by definition psychologically maltreated” (p. 5).

As a result, even if an acceptable definition of a high-risk behavior exists, substantiation that psychological maltreatment has occurred requires either observation of the behavior, or parental admission of guilt (Barnett *et al.*, 1991). This is perhaps one of the reasons that, only in rare circumstances, are legal proceedings initiated on the basis of psychological maltreatment alone, and even when this does occur, that such cases are subject to greater judicial discretion than those involving physical or sexual abuse (Garrison, 1987).

Focus on Parental Behaviors Versus Child Consequences

A related issue confronting professionals seeking definitional standards of psychological maltreatment is the question of whether such definitions should be based primarily upon parental behaviors that are considered harmful, or upon the manifestations of harm in the child. As with other issues, the focus in attention tends to vary with professional background and reason for the definition. For example, although acknowledging the importance *both* of parental behaviors and child

consequences, some researchers, such as McGee and Wolfe (1991a), have recommended that certain parental behaviors be considered psychological maltreatment “primarily on the topography of the behavior, not on the nature of the psychological effect it may produce” (p. 10). Although this tends to be the case with physical and sexual abuse, that is because it is well-accepted that these forms of maltreatment constitute high risk for harm (as established by research and clinical/medical evidence), even if substantial harm is not realized in every instance of the behavior; as a result, research and policy definitions for these forms of maltreatment tend not to differ markedly from one another. In addition, in the policy domain, as well as in the public forum, there is an imperative to prevent physically and sexually behaviors, even in discrete occurrence and, perhaps, even to ban their occurrence altogether, such as in the case of corporal punishment in public schools (Wald, 1991).

More than with any other form of maltreatment, however, psychological maltreatment appears to exist as an extreme point along a continuum of acceptable to unacceptable behavior (*e.g.*, Hart *et al.*, 1996). Whereas it is possible to “outlaw” physically abusive and sexually abusive behaviors directed toward children, there are clear conceptual and practical difficulties in recommending the eradication of certain *verbal* behaviors, for example.

Some in the legal and social policy sectors, moreover, are uncomfortable with basing intervention into family life on parental behavior that may merely be *predictive* of psychological harm, because of the unreliability of such predictions (*e.g.*, Wald, 1980; 1991). Considering that government intervention into family life may do more harm than good in less serious situations, it is little wonder that judicial and social policy professionals generally have recommended “limiting intervention to situations involving existing harm” (Wald, 1991, p. 116) and have tended to define psychological maltreatment in terms of such harm, as opposed to parental behaviors.

Clearly, even if there was a recognizable pattern of child behavior pointing to the occurrence of psychological maltreatment, there are problems in using behavioral manifestations as the sole or primary basis for a definition. For example, such definitions might exclude children who do not exhibit “typical” behaviors, (Lourie & Stefano, 1978), or who may be resilient or “invulnerable” (*e.g.*, Anthony & Cohler, 1987) to the effects of maltreatment.

As there is no standard yet established, the research and policy definitions of psychological maltreatment advanced to date vary widely in terms of their use of parent behaviors or child consequences to define or identify the construct. Most researchers agree, however, that operational definitions of psychological maltreatment must clearly describe the acts of psychological maltreatment separate from the consequences of these acts (Corson & Davidson, 1987; Hart *et al.*, 1996). In this sense, the predictor (parental behavior) would be considered distinct from the criterion (psychological harm to the child).

Inadequate or Inappropriate Parent Behavior Versus Maltreatment

It is clear that some parental behaviors, although improper, may not necessarily involve “actual damage or injury” to a child (Haugaard, 1991). Thus, determining that a behavior constitutes maltreatment clearly involves the drawing of lines, “a process that is especially difficult with regard to psychological maltreatment” (Wald, 1991, p.115).

When considering child consequences for parental behavior, as Garbarino (1991) has indicated, psychological phenomena are highly subject to contextual influences for their meaning and significance:

...a punch in the face is a punch in the face...a fractured femur is a fractured femur. But low self-esteem is sometimes indicative of temperament, sometimes culture, and sometimes psychic trauma; an insult is sometimes a joke, sometimes a faux pas, and sometimes a body blow to the psyche (p. 46).

Clearly, a useful definition of psychological maltreatment requires consideration of several contextual factors, such as frequency and intensity of the behavior, cultural mores, developmental level of the child, and intentionality of the perpetrator (*e.g.*, Garbarino, 1991; Garbarino *et al.*, 1986; Sternberg & Lamb, 1991).

Intensity and Frequency of Behaviors. Even with the identification of specific acts or domains of psychological maltreatment, it can be difficult to operationalize definitions, in terms of frequency or levels of behavior that might be tolerable and relatively innocuous, as opposed to damaging, thus constituting maltreatment. As discussed earlier, more than any other form of maltreatment, psychological maltreatment appears to exist as an extreme point along a continuum of tolerable to unacceptable behavior. Although acts of verbal aggression, rejection, and ignoring another's emotional needs are commonplace in our society, isolated instances of these behaviors may not necessarily constitute psychological maltreatment. This is in marked contrast to kicking a child or fondling a child sexually, in which case a single event, regardless of severity of outcome, constitutes physical abuse or sexual abuse, respectively. Not surprisingly, in their review of CPS case files, Barnett *et al.* (1991) found psychological maltreatment to be one of the most difficult forms for which to establish a continuum of severity:

Because psychologically maltreating acts are not directly tied to unambiguous evidence of harm, making judgements of the relative seriousness of these acts presents a quandary to the rater. For example, a broken bone can be viewed as more severe than minor bruising in cases of physical abuse. However, determining whether terrorizing children is more serious than rejecting them is problematic within psychological maltreatment (p. 27-28).

As McGee and Wolfe (1991a) have argued, conceptualization of psychological maltreatment requires that the continuum of all parent communications be more precisely defined and measured, including those behaviors that reflect mildly inadequate

or inappropriate parenting. Among the implications for research, are that psychological maltreatment is best measured as a continuous variable (Belsky, 1991; McGee & Wolfe, 1991a), and that those defining the construct consider reserving the term *psychological maltreatment* for those acts lying toward the extreme end of the continuum, both in terms of intensity and frequency of the behavior (Belsky, 1991; Barnett *et al.*, 1991; McGee & Wolfe, 1991a).

Consideration of Social and Cultural Context. Again, perhaps more than any other form of maltreatment, social and cultural contexts also are critical factors to consider in the creation and application of operational definitions of psychological maltreatment. As Garbarino *et al.* (1986) have stated, “it seems that behavior is considered psychologically abusive when it conveys a culture-specific message of rejection or impairs a socially relevant psychological process, such as the development of a coherent positive self-concept” (p. 6).

Because cultural practices and norms can vary widely in forms such as verbal expression or restriction of particular activities, there has been an imperative to accommodate cultural and ethnic diversity in defining psychological maltreatment, in part by creating a set of categories “general enough to reflect the universals of human nature” (Garbarino *et al.*, 1986, p.6). Thus, more than other forms of maltreatment, it seems essential that psychological maltreatment be considered in terms of community standards for minimal care, which are clearly influenced by “a kind of negotiated settlement between ‘culture’ (as represented by community standards that are articulated through a political process) and ‘science’ (as made incarnate in ‘professional expertise’)” (Garbarino, 1991, p. 45). As these standards are liable to change over time, definitions must be flexible enough to incorporate such changes.

Consideration of Child Developmental Stage. Developmental level of the child also is an important factor to consider in defining psychological maltreatment

(*e.g.*, Garbarino *et al.*, 1986). First, it is assumed that psychological maltreatment occurring at early developmental stages will have the most devastating impact on the victim “because such caregiving compromises the competencies required for the most basic developmental issues of homeostatic regulation, differentiation of affect, and attachment” (McGee & Wolfe, 1991a, p. 15). In addition, the nature of some types of psychological maltreatment might suggest that they would be more or less harmful to children at different stages of the development spectrum. For example, in reviewing CPS reports, Barnett *et al.* (1991) noted that several of these reports involved parents who forced young children to assume “inappropriate levels of family responsibility” (p. 28), and raised the question of how determination should be made as to what level of responsibility might be appropriate for various ages.

Intent of the Perpetrator. As with other forms of maltreatment, a child’s attribution for, or interpretation of, parental behaviors might mediate the effects of these behaviors (Egeland, 1991; Hinde, 1976). For example, cuts or bruises caused strictly by accidental means generally will have a different psychological impact on a child than the same injury caused by an angry and punishing parent. In the same way, a child who believes that a parent’s criticism is intended to make her or him a better person may experience less dire psychological consequences than another child who attributes the behavior to malevolent motivation (McGee & Wolfe, 1991a). As Egeland (1991) has noted, intention is a notion typically not addressed in conceptual definitions of psychological maltreatment. Some investigators, however (*e.g.*, Demaré, 1993a, 1993b), have attempted to address this issue in formulating their operational definitions. Determining meaning and intent of parental behavior is a complex process, however, that ideally requires collection and clinical interpretation of qualitative and quantitative information obtained from multiple sources (Egeland, 1991).

Diversity of Behaviors Thought to Constitute Psychological Maltreatment

As discussed above, there has been considerable diversity in the numbers and types of behaviors that researchers have targeted for study in the attempt to describe the construct of psychological maltreatment. For example, Garbarino *et al.* (1986) described five theoretically distinct forms of maltreatment. Hart *et al.* (1987) initially described seven, although subsequent research by these investigators have led them to narrow these to five or six, as a result of combining and revising some categories (*e.g.*, Brassard & Hardy, 1997; Brassard, Hart, & Hardy, 1991; Hart, 1995; Hart & Brassard, 1991; Hart *et al.*, 1996). In contrast, Baily and Baily (1986) identified a much larger set of 16 behavior subcategories thought to represent psychological maltreatment. Researchers building upon the work of these earlier investigators also have differed in the numbers and types of domains described, for example, with the present author identifying 12 subtypes of psychological maltreatment, and Engels and Moisan (1994) describing five.

One of the difficulties in delineating the domains of psychological maltreatment is that some of these are not discrete and, thus, there may be considerable overlap among categories. Many researchers agree, however, that separation of various subtypes is important in the early stages of investigating psychological maltreatment (Barnett *et al.*, 1991), and that, in order to study the unique contribution of some form of parent behavior to child adjustment, researchers must create a precise operational definition for each of the theoretical constructs or categories. Thus, as McGee and Wolfe (1991a) have stated, “until we know more about the potency of various parent-child communications, we should explore as many as theoretically relevant” (p. 12).

There are obvious methodological problems with such an approach, however, given that conceptual confounding might occur when operational definitions can be construed in terms of more than one theoretical construct (Cook & Campbell, 1979).

In addition, sound theory must guide such research. In this regard, Barnett *et al.* (1991) have suggested that clearer a priori guidelines are needed for delineating which behaviors are to be viewed as possible candidates for being deemed psychological maltreatment: “otherwise, psychological maltreatment would become a ‘catch-all’ category and lose its specificity” (p. 21).

Overlap of Psychological and Physical Aspects of Maltreatment

A related issue is that, whereas psychological maltreatment can occur alone, it often occurs in combination with other forms of maltreatment (*e.g.*, Claussen & Crittenden, 1991; Crittenden, Claussen, & Sugarman, 1994; Egeland, Sroufe, & Erikson, 1983; Hart & Brassard, 1991). In a study of children aged 2 to 6, for example, Claussen and Crittenden (1991) found that psychological maltreatment co-occurred in greater than 90% of cases of physical abuse. This creates obvious problems both for definition and identification. Some researchers (*e.g.*, McGee & Wolfe, 1991a) have recommended that study of psychological maltreatment be restricted to its “pure forms” (*i.e.*, in the absence of physical or sexual abuse). Others have criticized such an approach as unrealistic, and have stated that the results from such research would not be generalizable to the “real world” (*e.g.*, Wald, 1991).

The scope of this problem is evident in the research protocols and the working definitions of psychological maltreatment that have been formulated. Some researchers, for example, have conceptualized physical abuse as a form of rejection (*e.g.*, Main & George, 1985; Main & Goldwyn, 1984; Rohner, 1981), and have included physically abusive behaviors and/or sexually abusive behaviors in their definitions and conceptualizations of psychological maltreatment (*e.g.*, Garbarino *et al.*, 1986; Hart *et al.*, 1987, Brassard *et al.*, 1993), and in questionnaires designed to assess psychological maltreatment (*e.g.*, Engels & Moisan, 1994; Rohner, 1981; Sanders & Becker-Lausen, 1995). Others, while cognizant that psychological maltreatment is a

strong component of physical and sexual abuse, have been more careful to separate these theoretical constructs in their measurement instruments, at least for descriptive purposes (*e.g.*, Barnett *et al.*, 1991; Briere & Runtz, 1990; Demaré, 1993a, 1993b; Demaré & Briere, 1994).

Implications for Progress

Which Comes First – Definition or Identification?

As discussed above, many writers have attributed poor progress in the understanding of psychological maltreatment to the lack of clear and concise definitions of the construct (*e.g.*, Brassard & Hardy, 1997; Corson & Davidson, 1987; Daro, 1988; Frost, 1982; Garbarino *et al.*, 1986; Hart *et al.*, 1996; McGee & Wolfe, 1991a; O'Hagan, 1993; Vondra *et al.*, 1992). Yet, as the issues raised in the previous section have highlighted, there appears to exist a double-bind, in that the lack of clear operational definitions of psychological maltreatment also has restricted the scope of research and the generalizability of results.

Regardless of one's professional background or specific goals for developing a definition of psychological maltreatment, however, it is generally agreed that definition and description of the construct must be guided by research. Many see research into the types of parental behaviors that produce harm to children to be the critical first step to informing social policy. Giovannoni (1991b), for example, has noted that, almost without exception, the phenomena defined as maltreatment in social policy legislation have been identified first in scientific research as harmful to children. In general, she has perceived the demands of policy makers and practitioners to be concerned with determining cause, predicting occurrence, and identifying factors important to prevention and treatment. If research is to inform social policy, however, it must be relevant to policy and to societal standards of acceptable behavior.

The options available to researchers of child maltreatment have been summarized as follows: (a) accept definitions made by official agencies, (b) ignore such official definitions and create one's own criteria, and (c) employ a combination of both approaches. Each of these options has inherent limitations (Giovannoni, 1991b). For example, official definitions tend to result from a "negotiated process," in which a certain number, and perhaps a variety of cases are screened out of official maltreatment reports; the result may be an overly restrictive or generic definition of the construct. Definitions based strictly upon conceptualization of the construct by a particular researcher or research group, however, can suffer from poor validity and utility outside of the research setting. Unfortunately, to date, work in this field appears to have been dominated by these first two approaches.

The combined approach in the investigation of maltreatment, although perhaps an uneasy marriage of disparate methods, has distinct advantages of "circumventing the ambiguities that surround the identification of maltreatment by agencies [and] being more appropriately generalizable to other populations" (Giovannoni, 1991a, p. 32, 33). In this way, a definition of psychological maltreatment would develop as a result both of the contribution of research findings to accepted social definitions, and the incorporation of social definition into research (McGee & Wolfe, 1991b). In other words, the definition would evolve as a result of a dynamic process — one that is based upon 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.

Such a process might be achieved by starting with constructs known to affect child adaptation adversely, such as psychological unavailability, and other constructs identified by professionals and the public, such as those described by Baily and Baily (1986), Garbarino *et al.* (1986), Hart *et al.* (1987), and Rohner (1980, 1991), and

through empirical study, establishing potential links with negative outcomes. This was the approach adopted in the development of the Childhood Maltreatment Questionnaire (CMQ), and which is extended with the present study.

DEVELOPMENT OF THE CHILDHOOD MALTREATMENT QUESTIONNAIRE

In developing the CMQ, I sought primarily to contribute to the knowledge base concerning the identification of behaviors that might constitute psychological maltreatment. Specifically, because psychological maltreatment has been conceptualized as a broad category of behaviors comprised of a number of subforms (such as those described by the OSPRC), a major task of my earlier research was to create a retrospective-report questionnaire for adults that would adequately tap the many forms of parental behavior that are considered by professionals to constitute domains of psychological maltreatment.

I also created questionnaires to assess physical abuse and sexual abuse. Although questionnaires already exist to assess these latter forms, these tend to be limited in the number of behaviors they include. Because of this, such measures might not adequately assess the range of behaviors that could be considered physically or sexually abusive. It also was desirable to assess all maltreatment forms of interest in a similar survey format, thus maximizing comparability.

In addition to measuring the frequency of occurrence of various forms of maltreatment and examining the efficacy of the scales created, another goal of my earlier research was to examine associations of the various forms and subforms of maltreatment with measures of respondents' current levels of psychological functioning, as measured by the Brief Symptom Inventory (BSI: Derogatis, 1982, 1992), the Trauma Symptom Checklist-40 (TSC-40: Briere & Elliott, 1994; Briere & Runtz, 1989), and the Adult Form of the Coopersmith Self-Esteem Inventory (CSEI: Coopersmith, 1990).

Psychological Maltreatment Questionnaire (PMQ)

After reviewing the relevant literature, I determined that the seven domains of psychological maltreatment identified by the OSPRC were the best starting point for creating the PMQ. In an attempt to more comprehensively define the domain of psychological maltreatment and to render subcategories as homogeneous as possible, I made a number of modifications to the OSPRC subcategories before proceeding. These changes involved dividing and re-defining some of the subcategories in order to reduce content overlap. Based upon my review of the literature and upon my own clinical experience, I also added three subcategories of my own to the list of behaviors identified by the OSPRC. As a result of these modifications, I identified a total of 12 theoretically distinct subcategories of psychological maltreatment as follows:

Controlling and Stifling Independence; Corrupting; Degrading; Denying Emotional Responsiveness; Exploiting (Nonsexual); Isolating; Physical Neglect; Physical Terrorism; Rejecting; Unreliable and Inconsistent Care; Verbal Terrorism; and Witness to Violence (operational definitions for these subcategories are presented in Appendix A). From my review of the literature (*e.g.*, Baily & Baily, 1986; Garbarino *et al.*, 1986; Hart, *et al.*, 1987; Rohner, 1991) and my clinical experience, I generated a large number of questionnaire items for inclusion in each subcategory.

Physical Abuse Questionnaire (PAQ)

I also generated a variety of items describing physically abusive parental behaviors for inclusion in the PAQ. Some of these items were based upon those appearing in existing questionnaires (*e.g.*, Briere & Runtz, 1988; Straus & Gelles, 1988) but most were created for the study, based upon my review of examples in the child maltreatment literature and on my clinical experience. The PAQ is comprised of items reflecting low, moderate, and high severity of physically abusive behaviors. The latter items also can be utilized as a *Severe Physical Abuse* subscale of the total PAQ.

Sexual Abuse Questionnaire (SAQ)

Some of the items created for the SAQ were based upon items from a 10-item measure used by Finkelhor (1979). The Finkelhor items tend to fall into two main subcategories, namely (a) those involving physical contact of the perpetrator with the child and (b) those ostensibly not involving such contact. I consider this is an important distinction, given the empirical evidence that greater severity of sexual abuse tends to be associated with greater psychological symptomatology (*e.g.*, Wyatt & Powell, 1988). A further distinction that can be made with respect to noncontact sexual abuse is between verbal propositions and other noncontact sexual behaviors, such as genital exposure. Thus, I made distinctions among these forms clear by the creation of the following three subcategories of sexual abuse: *Sexual Harassment*, *Sexual Abuse Without Physical Contact*, and *Sexual Abuse With Physical Contact*.

The SAQ has two versions, one designed to assess sexual abuse as perpetrated by a parental figure, and another to assess sexual abuse as perpetrated by a nonparental figure. As in the case with the PMQ and the PAQ, many of the items comprising the SAQ were created based upon my clinical experience and upon examples from the literature. The items and subscales comprising the two versions of the SAQ are identical; only the instructions differ to direct respondents to answer with respect to the targeted perpetrator. Thus, the instructions for the parental version (SAQ-P) simply ask respondents to indicate the extent to which they experienced such behaviors by a parental figure. Instructions for the nonparental version (SAQ-NP) are somewhat more complex, in order to include more subtle coercive sexual experiences in the definition of sexual abuse along with clearly unwanted sexual experiences. Thus, respondents endorse items either if they clearly did not want the behavior to occur, or in cases where their consent may have been given or was ambiguous, they are asked to endorse

the item if the other person was older than them by 5 or more years. These instructions also could be adapted to meet a researcher's particular definition of sexual abuse.

Review of Questionnaire Items

Following my identification of the categories and subcategories of the CMQ, and generation of a large number of items to represent each of these, the items were submitted to a convenience sample of "expert" reviewers for their comments and critiques. Ten clinical psychologists, all with clinical and/or research backgrounds in child maltreatment, served as reviewers in this process and three formal reviews were conducted before I arrived at a final draft of the questionnaires that I judged to be ready for administration to a research sample of adults. Among other things, the reviewers were instructed to examine the items for content validity of the general categories and subcategories of childhood maltreatment that the items were designed to represent.

Characteristics of the Childhood Maltreatment Questionnaires

The version of the PMQ that resulted from formal review consisted of a total of 177 items comprising the 12 subcategories, with the number of items forming each subcategory ranging from 14 to 16. Sixteen items comprised the PAQ, and a total of 25 items comprised the 3 subcategories of each of the parental and nonparental versions of the SAQ. It was my intention that the length of the initial administration version of the PMQ be reduced further, based in part upon observation of statistical data for the subscales (*e.g.*, inter-item correlations and internal consistency reliability values).

Operating from the view that childhood maltreatment experiences should be assessed as continuous, rather than dichotomous variables, the scale I devised for responses to CMQ items is characterized by five weighted points, ranging from *never* to *very often*, with respect to the frequency, prior to age 18, that respondents experienced each of the behaviors described in the items.

Summary of Earlier Findings with the CMQ

Participants in the original study were approximately 1,200 Introductory Psychology students, who completed the questionnaires in large groups. The gender split of the sample was approximately 55% females and 45% males. Participants ranged in age from 18 to 49, with a mean of 20 and a median of 18 years.

Reliability Analyses and Revision

PMQ. By a process of examining the results of internal consistency reliability analyses and relying upon my understanding of the content domain of the constructs (*i.e.*, candidate items for retention/rejection were not based solely upon statistical findings), I reduced the number of items comprising each of the subscales of the PMQ to 10, for a total PMQ scale of 120 items; the results I reported for the original study (Demaré, 1993a, 1993b) were with respect to those items.

In the interest of arriving at yet a shorter version of the PMQ, and given the high internal consistency reliabilities of the subscales that were demonstrated in the original study, I subsequently reduced the number of items in each subscale to six, with negligible reduction evidenced in alpha coefficients (Demaré & Briere, 1994). The number of items in this revised and most recent version of the PMQ total 72. Alpha reliability coefficients for the subscales were found to range from .68 to .91, with a mean subscale alpha value of .83. The alpha coefficient for the total 72-item scale was found to be .97. Intercorrelations among PMQ subscales were found to range from .25 to .79, with a mean intercorrelation of .56.

PAQ. The items comprising the PAQ total 16, although this questionnaire is comprised of a Physical Abuse subscale and a Severe Physical Abuse subscale. The alpha reliability coefficient for the total 16-item PAQ was found to be .89, with alpha reliability coefficients of .90 and .74 for the 10-item Physical Abuse and 6-item Severe Physical Abuse subscales, respectively.

SAQ. The 22 items comprising each version of the SAQ are identical, and only the instructions for each differ. As discussed above, each version of the SAQ is comprised of three subscales, namely *Sexual Harassment* (six items), *Sexual Abuse Without Physical Contact* (six items), and *Sexual Abuse With Physical Contact* (10 items). The alpha reliability coefficients for the parental version of the SAQ were found to be .84 both for the Sexual Harassment as well as the Sexual Abuse Without Physical Contact subscales, and .93 for the Sexual Abuse With Physical Contact subscale. The alpha reliability coefficient for the total 22-item parental version of the SAQ was found to be .95.

For the nonparental version of the SAQ, the alpha reliability coefficient for the Sexual Abuse With Physical Contact subscale was .96. Because the nonparental versions of the Sexual Harassment subscale and the Sexual Abuse Without Physical Contact subscale were not administered to participants in the original study, prior reliability data are not available for these subscales.

Prevalence of Childhood Maltreatment

Frequency analyses from the initial study revealed that almost all students (99%) endorsed at least one item indicative of some form of psychological maltreatment as having occurred during childhood. Nearly two-thirds indicated that they had experienced some form of psychological maltreatment *often* or *very often*, and greater than one-third of participants indicated that they had experienced one or more psychologically maltreating parental behaviors *very often* during childhood.

Sixty-six percent of participants, relatively evenly distributed across gender, reported having had experienced at least one occurrence of physical violence at the hand of a parent figure, with approximately 8% of participants reporting that they had experienced physical violence *often* or *very often* during childhood.

Approximately 47.5% of females and 38.1% of males reported having had experienced at least one incident of contact sexual abuse prior to age 18. Forty-five percent of females and 37.3% of males reported sexual abuse by a nonparent, whereas 4.7% of females and 4% of males reported sexual abuse by a parental figure. Approximately 2.5% of females and 3% of males reported sexual abuse by both a parental figure and a nonparental figure.

There was no evidence of gender differences with respect to participants' experiences of psychological maltreatment, physical abuse, or sexual abuse perpetrated by a parental figure. Gender differences were evident, however, with respect to the occurrence of sexual abuse perpetrated by a nonparental figure, with females reporting greater frequencies of this form of sexual abuse.

Factor Structure of CMQ Scales and Subscales

Results from principal components analyses of the CMQ scales and subscales indicated that items comprising each of the subscales represented a unitary construct and, additionally, provided general confirmation that the broad forms of maltreatment assessed represent different constructs. However, physical abuse loaded most strongly on a component along with psychological maltreatment, consistent with indications of considerable overlap between these constructs. In addition, principal components analyses of the PMQ subscales revealed that they loaded on a single component, suggesting that, at least for a university student sample, the theoretically diverse subforms of psychological maltreatment are not statistically discernable and, thus, psychological maltreatment may be better conceptualized as a unitary construct with this population.

Relationships Between Maltreatment and Psychological Functioning

In the original study, bivariate regression analyses were conducted in which students' scores on the PMQ, the PAQ, and the SAQ were used to predict

psychological functioning in adulthood, measured via the Brief Symptom Inventory (BSI: Derogatis, 1982, 1992), the Trauma Symptom Checklist-40 (TSC-40: Briere & Elliott, 1994; Briere & Runtz, 1989), and the Adult Form of the Coopersmith Self-Esteem Inventory (CSEI: Coopersmith, 1990). Each subscale was found to be a significant predictor of each measure of psychological functioning for both genders. For females, eight of the 12 forms of psychological maltreatment, and for males nine of these forms had bivariate *adjusted R square* values of .10 or greater when regressed onto the General Severity Index of the BSI. Scores on the total PMQ explained 17% of variability in BSI scores for females, and 21% of variability in BSI scores for males. In contrast, PAQ scores and SAQ subscale scores explained six percent or less of variability in BSI scores. Similar results were obtained for the TSC-40 and the CSEI.

In multiple regression analyses comparing the efficacy of PMQ, PAQ, and SAQ scores to predict levels of psychological functioning, psychological maltreatment accounted for 9.9% of the total 10.6% of unique variability explained in BSI scores for females, and 15.5% of the 18.6% of unique variability in BSI scores for males. Similar results were obtained for self-esteem and trauma symptoms for both genders. It was discovered that physical abuse and sexual abuse contributed negligible amounts of unique variability in predicting each of the measures of psychological functioning.

Together, results from the original study indicate that the 12 subscales created to assess psychological maltreatment and those created to assess physical abuse and sexual abuse have good content validities and acceptable internal consistency reliabilities. In addition, there was evidence of construct validity for each of the questionnaires, with reported childhood maltreatment experiences demonstrating relationships with students' adulthood levels of psychological functioning in theoretically predictable manners. In all analyses conducted in the original study, furthermore, childhood psychological maltreatment experiences, in particular, emerged as powerful predictors of greater symptomatology and lower levels of self-esteem in adulthood.

METHOD

Overview of the Present Study

Participants and Procedure

The design of the present study involved two parts. During the first part, a sample of 1,286 female and male students recruited from the Introductory Psychology Subject Pool at the University of Manitoba completed a comprehensive questionnaire containing all items that comprise the revised CMQ, as well as several additional scales to measure related variables of interest (described in a later section), such as symptom status and demographic variables. In part two, following a 4-month lag, approximately half of these students completed a second questionnaire, comprised of the CMQ and many of the additional measures that appeared in the first questionnaire.

In order to recruit participants, I attended a portion of a class shortly after commencement of first term courses in each of several sections of Introductory Psychology. In the first recruitment sections, students were asked to participate in both parts of the study. Once approximately 800 students had been recruited in this manner, students in the remaining sections were recruited to participate only in the first part of the study.

All students received a portion of their course credit for study participation. Prior to their signing up for the study, students were informed that the questionnaire they would be asked to complete contained items of a personal and sensitive nature. They also were assured that their questionnaire responses would be kept confidential and that they would not be asked to place any information on their questionnaires that could be used to identify them personally. The response to recruitment was enthusiastic, with the majority of students in each class section signing up for the study.

Considerable efforts were made to ensure that all interested students had the opportunity to participate in the study, and that attrition rates for students who signed

up would be minimal. For example, students were provided with a wide range of possible appointment times over a two week period, thus minimizing the possibility that they would be unable to participate due to schedule conflicts. Upon sign-up, each student was given an appointment reminder slip that indicated the date, time, and location of the study, as well as a phone number to call in the event that the student needed to reschedule or cancel the appointment. In addition, the schedule information was entered into the Psychology Department Subject Pool computer system, to which all students had access at their convenience. Immediately upon completion of their Part 1 questionnaires, students who had been recruited to participate in both phases of the study scheduled their appointment times for Part 2. This schedule information also was made available to them via the Subject Pool computer system. Because of the substantial time lag between Part 1 and Part 2 of the study, written reminders were posted outside of Introductory Psychology classes 2 weeks prior to Part 2, and I also revisited all Introductory Psychology sections in which students had been recruited for both phases, to provide a verbal reminder one week prior to Part 2. For both Part 1 and Part 2 of the study, students were afforded considerable flexibility to revise their scheduled participation times, if necessary, and all who needed to reschedule in this regard were accommodated.

Students completed their questionnaires in groups ranging from 50 to 100, although care was taken to ensure that each student was afforded adequate privacy and comfort. This was accomplished by the use of a large modern conference theatre (seating capacity approximately 200) where students were separated from each other by a minimum of one empty chair on each of their left- and right-hand sides. The theatre contains long continuous conference tables which allowed students to spread out their materials and work comfortably. Students who needed to leave the theatre to take short breaks were allowed to do so, 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.

Two researchers were present at every session. In addition to myself, I employed a female graduate student to assist in the administration of questionnaires. This procedure was instituted to ensure that (a) sufficient personnel were available to handle the many administrative tasks required, as well as to answer questions or respond to concerns that students might have during questionnaire completion, and (b) both a female and a male researcher were present in the event that particular students felt more comfortable asking a question or sharing a concern with a researcher of a specific gender, given the sensitive nature of some of the questionnaire items.

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, informed students that they had the right not to participate in the study, and made it clear that, if they chose to leave the study at any time, they would still receive credit for participation; this information also was provided verbally by the researchers at the commencement of each session. The consent forms were collected at the beginning of the session, separately from the questionnaires, so that participants' names could not be linked with their questionnaires.

No strict time limit was imposed for completing the questionnaires, but students were asked upon recruitment to be available for two hours, and instructed that the questionnaires would require approximately one-and-one-half hours to complete. Most students completed the questionnaires in just over an hour, and none required more than the 2 hours allotted.

All students, regardless of whether they were recruited to participate in one part or both parts of the study, were led through a procedure at the beginning of each

session to generate a unique nine digit code for each participant. This code consisted of extraneous personal data, such as numbers that corresponded to the last letter in the first name, but from which it was impossible to identify individual participants personally. Students were instructed clearly not to place their names or any other information on their questionnaires that could be used to identify them. For those students who participated in both parts of the study, the nine digit code was used to link their data.

Because of the sensitive nature of the items comprising the questionnaire, it was anticipated that some participants 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, for both phases of the study, upon questionnaire completion, each participant was given a debriefing form that acknowledged that the sensitive nature of some of the questions might evoke thoughts or feelings that some participants might wish to discuss with a counselor. A list of free or sliding scale fee counseling resources was provided on the debriefing form, as was a phone number at the University of Manitoba where I and my research advisor could be reached. In addition, the form encouraged participants to call if they wished to receive a written copy of study results once these became available. I was prepared to meet individually with any participant wishing to discuss the study itself or concerns or reactions he or she may have had as a result of participating, and/or to assist a participant wishing to access counseling resources. Prior to commencement of the study, I contacted all counseling agencies listed on the debriefing form to inform the appropriate employee at each (*e.g.*, program director, intake worker) that the resource would be offered to participants, and to provide a brief description of the study.

Based upon my experience and on the experience of other investigators conducting similar research at the University of Manitoba, serious concerns or severe emotional reactions on the part of participants were not expected to occur and, in fact, none were reported in the present study. Although a small number of students approached me immediately following their completion of the questionnaire to discuss the questionnaire or its relevance to their personal experiences, their questions tended to be of a general interest nature. Some frankly disclosed verbally that they had experienced maltreatment, and/or that they had experienced mental health problems, but indicated that they did not find completion of the questionnaire to be distressing; rather, comments from such students tended to be supportive of research in this area, as they felt that increased public awareness of abuse-related and mental health issues might benefit others. This also was the overwhelming response of students who disclosed maltreatment experiences in written feedback on the final page of the questionnaire, which invited comments. Others who indicated that they had not experienced maltreatment tended to comment that completing the questionnaire was a useful “eye-opening” experience for them, for example, by making them more aware of the vast range of childhood experiences, negative and positive, that individuals can have.

Overall, the completeness with which students turned in their questionnaires, the types of questions of clarification that some asked during their questionnaire completion, and their written and verbal comments indicated that they had approached the task in a serious and straightforward manner, and that the vast majority did not find participation in the study to be aversive. In fact, such impressions are consistent with empirical findings (Walker, Newman, Koss, & Bernstein, 1997) that indicate participation in survey studies of childhood maltreatment are generally not perceived as being aversive, and can actually be perceived as a positive experience for many individuals.

Primary Issues Examined, Measures Used, and Major Hypotheses Proposed

To facilitate reading, the statistical procedures, descriptions of measures used, and major hypotheses proposed for the present study are presented together according to each major issue that was examined in the study.

1. Internal Consistency Reliability, Intercorrelations, and Factor Structure of the CMQ

Internal consistency reliability for all CMQ component questionnaires and subscales were assessed by the computation of Cronbach alpha coefficients. Given results from the earlier study, which used an equally large sample from a similar population (Demaré, 1993a, 1993b), alpha reliability values were expected to be high (*i.e.*, above .80) for all CMQ questionnaires and subscales, with the exception of the Corrupting and Neglecting subscales. Because of the anticipated lower levels of positive endorsement of items comprising these subscales by university students, distributions for these subscales were expected to be restricted and, as a result, alpha reliability values were expected to be comparatively lower.

Associations among CMQ questionnaires and subscales were examined initially by Pearson product-moment correlation coefficients. Intercorrelations among PMQ subscales were expected to be in the moderate to high range, as were intercorrelations among PAQ and SAQ subscales. Because they represent theoretically divergent forms of maltreatment, correlations between the PMQ, the PAQ, and the SAQ were expected to be generally lower than their intra-scale correlations, perhaps in the low to moderate range. Because of the greater overlap, theoretically, between psychological maltreatment and physical abuse, correlations between these forms of maltreatment were expected to be stronger than those between psychological maltreatment and sexual abuse and between physical abuse and sexual abuse.

The component structure of each subscale, each questionnaire, and the full CMQ was examined through a series of principal components analyses. Where more than one component was extracted with an eigenvalue greater than 1.0, the solution was rotated obliquely to aid in interpretation of the component structure. Oblique rotation was deemed more appropriate than orthogonal rotation, given indication of correlation between broad forms and subforms of maltreatment and, thus, the extracted components. Results from principal components analyses also were expected to be consistent with results from the earlier study, indicating that items comprising each CMQ subscale represent a unitary construct, and that parental forms of sexual abuse and nonparental forms of sexual abuse are distinct from one another and from psychological maltreatment and physical abuse. However, given anticipated strong associations between physical abuse and psychological maltreatment, principal components analyses were not expected to provide compelling evidence for the uniqueness of these constructs. In addition, despite their theoretical division into separate subscales, the subscales comprising the PMQ were expected to load meaningfully on a single component, consistent with the representation of a “general” psychological maltreatment factor.

Similar results were expected for the PAQ and for each version of the SAQ. This is because of the high degree of overlap and, thus, shared variability among component subscales of each broad form of maltreatment that was expected with a university sample. In part, such results would be expected when generally low frequencies and few cases of severe incidents of maltreatment are reported, such as might be expected in this sample. Distinctions among similar subforms of maltreatment would be particularly difficult to make at low levels of endorsement because of the anticipated lack of specificity at these levels, and the likelihood that the predominant source of (shared) variability could be described, for example, as “poor treatment.”

Because it was anticipated that participants' endorsements of more unusual or extreme forms of maltreatment, such as Corrupting and Neglect, would be particularly low, it was also expected that these subscales would not evidence strong associations with the components extracted.

Hypothesis 1A. Results from internal consistency reliability analyses were expected to yield high coefficient alpha values (*i.e.*, $\alpha > .80$) for all CMQ component questionnaires and subscales, with the exception of the Corrupting and Physical Neglect subscales, which were expected to be lower, perhaps between .65 and .75.

Hypothesis 1B. Intercorrelations among PMQ subscales were expected to be positive and generally in the moderate range (*i.e.*, $r = .40$ to $.70$), as were intercorrelations among PAQ and SAQ subscales. Correlations between the PMQ, the PAQ, and the SAQ were expected to be generally lower than their intra-scale correlations, in the low to moderate range. Correlations between the PMQ and the PAQ were expected to be stronger than those between the PMQ and the SAQ and between the PAQ and the SAQ.

Hypothesis 1C. Results from principal components analyses were expected to provide evidence that items comprising each CMQ subscale represent unitary constructs.

Hypothesis 1D. Principal components analyses of subscales comprising each of the PMQ, the PAQ, the SAQ-P, and SAQ-NP were expected to yield a single component for each of these questionnaires.

Hypothesis 1E. Results were expected to produce evidence that parental sexual abuse, assessed by the SAQ-Parental version and nonparental abuse, assessed by the SAQ-Nonparental version, can be discriminated as constructs separate from one another and from psychological maltreatment, assessed by the PMQ, and physical abuse, assessed by the PAQ. These analyses were not expected to produce compelling

evidence that psychological maltreatment and physical abuse are discernable as separate constructs within a university student sample.

2. Association of Psychological Maltreatment versus Physical Abuse and Sexual Abuse Experiences with Measures of Current Psychological Symptom Status

Three instruments were utilized to measure current psychological symptom status: the Trauma Symptom Inventory, the Brief Symptom Inventory, and the Beck Depression Inventory.

Trauma Symptom Inventory (TSI)

The TSI is a relatively new 100-item measure of trauma symptomatology created by Briere (1995) that, essentially, replaces the TSC-40 (Briere & Runtz, 1989; Elliott & Briere, 1992). The TSI has ten subscales of traumatic symptomatology, as compared with the six subscales of the TSC-40, and is considered to be a measure more sensitive, relative to measures such as the BSI and the TSC-40, to the types of traumata that are hypothesized to result from childhood maltreatment. Respondents report the frequency with which they have experienced each symptom over the past 6 months on a 4-point scale ranging from *never* to *often*. Psychometric data for the TSI indicate that it is a reliable and valid measure of traumatic symptomatology (*e.g.*, Briere, 1995; Briere & Elliott, 1998; Briere, Elliott, Harris, & Cotman, 1995; Edens, Otto, & Dwyer, 1998; Runtz & Roche, 1999).

Also of importance is the fact that the TSI contains three validity scales that were designed to detect atypical or inconsistent response patterns. Although it is generally advisable to include such measures in a study that involves self-report (*e.g.*, DeVellis, 1991; Saunders, 1991), these measures may be of critical importance in the present study, where participants were asked to respond to items of an extremely sensitive nature. It was intended that observation of very high scores on any of the

validity scales might result in declaring the data provided by that respondent to be invalid.

Brief Symptom Inventory (BSI)

The BSI (Derogatis, 1975, 1992) is a 53-item self-report psychological symptom scale that is a shortened version of the widely used SCL-90-R (Derogatis, 1977, 1983). Participants 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 General 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). Extensive data are available to indicate that the BSI is a reliable and valid measure of psychological symptomatology (*e.g.*, Derogatis, 1992; Derogatis & Melisaratos, 1983; Derogatis & Savitz, 1999; Hayes, 1997; Johnson, Clark, & Dimond, 1996; Morlan & Tan, 1998).

Internal consistency reliability for the BSI was established with a sample of 1,002 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 re-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; Derogatis & Savitz, 1999).

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, these researchers obtained a mean score on the GSI measure of .71 (*sd*

= .42) for females and .84 ($sd = .55$) for males. 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, thus, the authors caution that appropriate norms should be used by those studying a college population.

Beck Depression Inventory (BDI)

The BDI (Beck, Ward, Mendelson, Mock, & Erlbaugh, 1961) is a 21-item instrument measuring the behavioral, cognitive, motivational, and vegetative symptoms of depression also was utilized as a symptom measure. The BDI is one of the most widely used measures of the severity of depression symptoms, and its reliability and validity have been well demonstrated (*e.g.*, Beck, Steer, & Garbin, 1988; Katz, Katz, & Shaw, 1999; Richter *et al.*, 1998; Robinson & Kelley, 1996; Schotte *et al.*, 1997).

Association of CMQ Scores with Measures of Symptom Status

Association of the total-score PMQ, PAQ, SAQ, and their subscales, with the measures of symptom status were examined initially through bivariate correlational analyses. Based upon findings from the earlier study, low to moderate positive correlations were expected between the total PMQ and each of its subscales with each of the measures of symptom status.

A 2 (gender) x 2 (PM) x (PA) x (SA) x 2 (gender) Multivariate Analysis of Covariance (MANCOVA) was then conducted to determine the extent to which maltreatment status was predictive of symptom status. A maltreatment/no maltreatment group was created for each of psychological maltreatment, physical abuse, and sexual abuse. Other Loss, and Personal Trauma were included as covariates. Significant main effects were anticipated, such that means on symptom measures were expected to be significantly higher for each of the maltreatment groups, and females' symptom scores were expected to be generally higher than males. In addition, post-hoc univariate statistics were expected to reveal significant differences in each of the symptom

measures as a function of psychological maltreatment experiences, and for the majority of symptom measure scores as a function of physical abuse and as a function of sexual abuse. Gender differences were expected, as per the *t*-test results described earlier.

Multiple regression analyses were then conducted to assess *unique* contributions by each broad form of maltreatment in predicting levels of psychological symptom status by utilizing total scores for the PMQ and the PAQ, and the Contact Sexual Abuse subscales for the SAQ as predictors of each of the measures of symptom status. In all cases, contributions of unique and shared variability for these broad maltreatment forms were assessed by examination of standardized regression coefficients and squared semipartial correlation values. Based upon earlier findings, the PMQ was expected to be the strongest predictor of symptom status, in contributing the largest amount of unique variability in the prediction of most or all symptom scores.

Hypothesis 2A. Each total-score measure of maltreatment, as well as each subscale, was expected to demonstrate moderate to high positive correlation with each of the measures of symptom status. That is, higher levels of self-reported childhood maltreatment were expected to be associated with higher symptoms scores and, thus, poorer levels of symptom status.

Hypothesis 2B. Symptom measures were expected to differ significantly as a function of maltreatment/no maltreatment status for psychological maltreatment, physical abuse, and sexual abuse, such that a history of self-reported childhood maltreatment would be associated with higher symptom scores. Females' symptom scores also were expected to be generally higher than males'. Post-hoc univariate analyses were expected to reveal significant differences on each TSI clinical subscale and on the BSI General Severity Index and the BDI as a function of psychological maltreatment history, and on the majority of these symptom measures for physical abuse and for sexual abuse.

Hypothesis 2C. For all symptom measures, self-reported childhood psychological maltreatment experiences were expected to emerge as stronger unique predictors of greater psychological symptomatology than were either self-reported physical abuse or sexual abuse experiences.

3. Convergent, Discriminant, and Incremental Validity of the PMQ

Convergent Validity. To evaluate additional aspects of validity of the PMQ, I included in the overall questionnaire a measure that is thought to tap roughly the same construct as the PMQ. This is Rohner's (1980, 1991) Parental Acceptance and Rejection Questionnaire (PARQ), a 60-item scale that was developed to examine a theoretical continuum of parenting behavior described as parental acceptance and rejection (*e.g.*, Rohner, 1975, 1980, 1986; Rohner & Rohner, 1980; Rohner, Saavedra, & Granum, 1978). This construct is clearly an important aspect, perhaps even the core construct of psychological maltreatment and, as discussed earlier, the PARQ was one of the many sources from which I garnered examples of psychological maltreatment during my creation of the PMQ. The PARQ consists of four subscales, described as Rejection (Undifferentiated), Aggression/Hostility, Neglect/Indifference, and Warmth/Affection. A 4-point weighted scale is provided for responses, ranging from *almost always true* to *almost never true*. Items comprising the Warmth/Affection subscale are reverse scored and, thus, lower scores on all PARQ subscales are indicative of greater levels of maltreatment.

Although the PARQ may be somewhat limited, relative to the PMQ, in the range of behaviors it assesses that can be considered to constitute psychological maltreatment, it nonetheless serves as a reasonable and reliable measure of the general construct of psychological maltreatment, and it appeared to be the most suitable of the very few measures available at the time this research was initiated with which to compare the PMQ.

Rohner (1991) presented validity study data for the PARQ indicating internal consistency reliability values ranging from .86 to .95 for the four PARQ subscales, as well as data indicating reasonably good concurrent validity of the subscales with three subscales from Schaefer's (1964) Child's Report of Parent Behavior Inventory and one subscale from Bronfenbrenner's Parental Behavior Questionnaire (Siegelman, 1965).

In the present study, one modification was made to the PARQ in order to improve consistency of the instructions between the PARQ and the PMQ. The PARQ was initially designed to assess participants' responses with respect to childhood treatment by one's mother figure. In order to more comprehensively assess childhood maltreatment experiences, and in recognition that a child's major caretaker is not necessarily his or her mother, participants in the present study were asked to respond to PARQ items with respect to "my major caretaker..." as opposed to "my mother...".

Evidence of convergent validity can be assumed if the correlation between the PMQ and the PARQ is found to be high. In addition to examining correlations between the total score PMQ and the total score PARQ, correlations among the component subscales were examined to determine whether those subscales that would be expected to be most similar theoretically (*e.g.*, PMQ Rejecting and PARQ Rejection (Undifferentiated); PMQ Denying Emotional Responsiveness and PARQ Warmth/Affection) were more strongly associated than were theoretically dissimilar subscales. Although tendencies were expected for similar PMQ and PARQ subscales to be more strongly associated with one another, statistically significant findings in this regard were not necessarily expected. This is because of the high degree of overlap assumed to exist among component subscales of the PMQ and among component subscales of the PARQ. In addition, the small number of items comprising each subscale, and the uncertainty of the comparability of the extent to which each subscale adequately taps the domain it was intended to describe, would be expected to adversely

affect correlations between specific individual PMQ and PARQ subscales. For example, the PARQ subscales are more heterogeneous than are the PMQ subscales, in that they combine items within the same subscale that the PMQ taxonomy would divide into separate subscales.

It should be noted that convergent validity of the PAQ and the SAQ was not assessed in the present study; consideration of issues of respondent fatigue and, perhaps, even emotional stress means that there are practical limits to the number of emotionally sensitive measures and items that can be included in a study of this type, and decisions about which measures are included must be weighed carefully. Because of the uniqueness of the PMQ and the relatively greater benefit that this instrument might be able to provide in the assessment of childhood maltreatment in future studies, relative to the PAQ and the SAQ, I considered assessment of aspects of reliability and validity of the PMQ to be paramount.

Hypothesis 3A. The correlation coefficient observed between the total PMQ and the total PARQ was expected to be in the high range (above .70). In addition, correlations between theoretically similar PMQ and PARQ subscales were expected to have a tendency to be higher than correlations between dissimilar subscales.

Discriminant Validity. Discriminant validity of the PMQ was assessed by (a) comparing correlation coefficients observed between the PMQ and the PARQ and between the PMQ and the PAQ and SAQ, and (b) comparing correlation coefficients among various subscales of the PMQ with those observed between these subscales and those of the PAQ and SAQ. Evidence of discriminant validity was assumed if (a) correlations between the PMQ and the PARQ were significantly higher than those observed between the PMQ and the measures of the divergent forms of maltreatment represented by the PAQ and the SAQ, and (b) correlations observed among the

subscales of the PMQ were significantly higher than those observed between these subscales and those of the PAQ and SAQ.

Hypothesis 3B. The correlation coefficients observed between the PMQ and the PARQ were expected to be significantly higher than those observed between the PMQ and the PAQ and between the PMQ and the SAQ.

Hypothesis 3C. The correlation coefficients observed among the subscales of the PMQ were expected to be significantly higher than those observed between the subscales of the PMQ and the subscales of the PAQ and the SAQ.

Incremental Validity. Incremental validity (Sechrest, 1963, 1984), is indicated by the increase in predictive validity that can be attributed to a measure in multivariate analysis. In the present study, this form of validity was assessed by first entering the total PARQ score into hierarchical multivariate regression analyses predicting each of the measures of symptom status. At a second step, the total PMQ score was allowed to enter the equation to determine whether the PMQ was able to account for additional significant variability in symptom scores, beyond that accounted for by the PARQ. Results of such an analysis can indicate whether the PMQ is able to provide additional significant information, relative to the PARQ, in the prediction of psychological symptom status.

In addition to the use of the total PARQ and the total PMQ, analyses were conducted using PARQ and PMQ subscales that are similar with respect to item content. Specifically, PARQ Rejection (Undifferentiated) was paired with PMQ Rejecting, PARQ Aggression/Hostility was paired with PMQ Degrading, PARQ Neglect/Indifference was paired with PMQ Denying Emotional Responsiveness, and PARQ Warmth/Affection was paired with PMQ Denying Emotional Responsiveness).

Because the PMQ and its component subscales appear to be somewhat more comprehensive than the PARQ in their assessment of the range of parental behaviors

thought to constitute psychological maltreatment, it was expected that, in all cases, incremental validity of the PMQ would be demonstrated by the observation of significant *R square* change values and higher squared semipartial correlation coefficients.

Hypothesis 3D. In all analyses assessing incremental validity of the PMQ, the PMQ or its representative subscale was expected to contribute significant variability in the prediction of symptom scores after variability contributed by the PARQ or its representative subscale had been accounted for.

4. Test-Retest Reliability and Stability of the CMO

Administering the questionnaire to students at two time periods permitted examination of the test-retest reliability of the PMQ, as well as the PAQ, and the SAQ.² Test-retest reliability is an important dimension of the overall reliability of a psychological measure (*e.g.*, DeVellis, 1991; Sechrest, 1984; Spector, 1992) and is considered to be an especially important aspect to examine in measures designed to assess events that may have occurred at some distal point in the past, such as childhood maltreatment reported by an adult respondent. For example, questions have been raised in recent years as to whether retrospective-reports of childhood maltreatment are reliable or stable over time (*e.g.*, Briere, 1992b; Briere & Conte, 1993; Friedrich, Talley, *et al.*, 1997), and the present study was expected to provide useful data in this regard.

As discussed in a previous section, there was approximately a 4-month lag between administrations of the questionnaire, and the timing of each administration at one month subsequent to the commencement of each semester was intended to capture students at relatively equivalent times of stress, with respect to course demands. To

² Although test-retest reliability of the Parental version of the SAQ was assessed in the present study, test-retest reliability of the Nonparental version of the SAQ was not assessed because of planned revision to this questionnaire.

assess test-retest reliability, Pearson product-moment correlation coefficients were computed between participants' Part 1 and Part 2 scores for all PMQ, PAQ, and SAQ subscale scores, as well as between total scores with respect to these measures.

Based upon findings by other researchers investigating concordance of childhood maltreatment reports by adults over time (*e.g.*, Friedrich, Talley, *et al.*, 1997), and because there was no reason to expect that students would provide dishonest responses, would recall childhood events in a measurably different way, or would otherwise substantially alter their responses between Part 1 and Part 2, mean scores at each Part were expected to be relatively similar, and test-retest reliabilities of the PMQ, PAQ, and SAQ were generally expected to be high.

Hypothesis 4. Mean scores on CMQ scales and subscales were not expected to be substantially different between Part 1 and Part 2, and test-retest reliabilities of the PMQ, PAQ, and SAQ scales and subscales were generally expected to be in the high range (*i.e.*, $r = .70$ to $.90$).

5. Assessment of the Extent to which Psychological Symptom Status Might Affect Stability of the PMQ Over Time

One of the potential criticisms of a study in which childhood experiences of any sort are assessed by retrospective-report is whether factors such as the respondent's mood or level of psychological distress at the time he or she completes the questionnaire might affect (*i.e.*, bias) recall of childhood events (*e.g.*, Briere, 1992a). Although it would be impossible in a study of this sort to determine whether participants' reports of maltreatment are *accurate*, the test-retest design of the present study allowed both examination of whether participants' reports of childhood experiences were stable over a 4-month lag, and whether their symptom status might have affected their responses to items assessing childhood maltreatment.

To determine this, a series of stepwise hierarchical multiple regression analyses were conducted in which, for each measure of symptom status, maltreatment experiences reported at Part 1 were entered first into an equation predicting maltreatment assessed at Part 2. At each of the next two steps, respectively, the measure of the specific symptom score under consideration reported at Part 1, and at Part 2, were entered into the equation. As there is no compelling consistent empirical evidence in the literature to suggest that symptom status significantly biases recall of distal events, such findings were not expected in the present study.

Hypothesis 5. Students' symptom scores were not expected to be associated meaningfully with consistency in their reports of childhood maltreatment.

Secondary Issues to be Examined and Additional Measures Utilized

In addition to the primary issues described above, secondary issues included examination of demographic data, frequencies of the various forms of childhood maltreatment reported, and descriptive data for the measures of symptom status, especially with respect to the TSI, for which limited normative data are available for a university student sample. Additional variables, described below, were included both for descriptive purposes and because they could be related to the measures of primary interest. Where it was deemed appropriate, some of these variables were included in subsequent analyses.

Demographics

Demographic and other background variables assessed in the present study include age, gender, marital status, current living arrangements, year in university, and family of origin characteristics, such as number of siblings, age position in the family, size of the community in which the respondent was raised, family income, parental education level and occupation, primary caretakers of the respondent as a child.

Trauma and Loss

Because of the possible importance to adult psychological symptom status of having experienced personal loss and traumatic events other than childhood maltreatment, measures to assess the occurrence of these events also were included in the questionnaire. These measures, which were created by the present author for use in the original study consist of (a) seven items representing events that the respondent might have experienced in childhood that would be expected to be upsetting or traumatic for most people, such as serious accidents, natural disasters, and robberies or muggings and (b) five items that assess possible personal losses that respondents might have experienced prior to age 18, such as separation or divorce of parents, and death of parents or other close family members. Responses to these items can be summed to create a measure of Trauma and a measure of Loss, respectively.

Social Desirability

An 11-item short form of the Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960; Reynolds, 1982) was utilized as a measure of social desirability bias in responding to questionnaire items. The MCSDS is probably the most widely used measure of response bias. Social desirability response bias is considered to be an important variable to consider when utilizing self-report measures, especially when assessing sensitive topics such as maltreatment (*e.g.*, Saunders, 1991).

The full scale MCSDS consists of 33 statements regarding uncommon or undesirable statements for which respondent indicate *true* or *false* as each pertains to them. The 11-item version of the MCSDS, described by Reynolds (1982) yielded a Kuder-Richardson formula 20 reliability coefficient of .74, as compared with .82 for the full MCSDS, and the correlation between the short form and the full scale was found to be .91 for a sample of 608 undergraduate students. Thus, the MCSDS-11 represents a brief easy-to-administer measure of response bias that has acceptable reliability and validity properties.

RESULTS

Data Characteristics

Prior to conducting the main analyses, several procedures were followed to screen the data for missing responses and questionable response validity, as well as for normality, linearity, and homoscedasticity of the variables and for the presence of univariate and multivariate outliers.

Of the 1,286 students who agreed to participate in Part 1 of the study, none chose to withdraw from this phase. However, 44 of these (23 females and 21 males) failed to provide complete data for the items of primary interest, and their data were eliminated from analyses. Of the approximately 800 students from the total Part 1 sample who also had been recruited to participate in Part 2, a total of 678 of these students actually attended Part 2. Given that only three students had formally withdrawn from the study during the 4-month lag between Part 1 and Part 2, and because considerable efforts were made to remind students about the second part of the study and to accommodate any who had experienced unforeseen scheduling problems, the attrition level for students still enrolled in Introductory Psychology at Part 2 was extremely small, consisting of fewer than 10 students. The bulk of attrition was accounted for by students who had withdrawn their registration from Introductory Psychology classes prior to Part 2 of the study, which was held subsequent to the university's final date for voluntary withdrawal from classes without penalty. Of the 678 Part 2 participants, 25 (14 females and 11 males) were eliminated from analyses because they failed to provide complete data. An additional 27 were eliminated because they committed major errors in creating at least one of the codes used to link their Part 1 and Part 2 data, rendering comparison of these data impossible.

Next, participants' TSI validity scale scores were examined for extreme values. Data were eliminated for 28 participants (18 females and 10 males) at Part 1, and for 12

participants (7 females and 5 males) at Part 2 because one or more of their validity scale scores were greater than 3 standard deviations from the mean, indicating unacceptably high inconsistency, atypicality, and/or low level of endorsement in responses. This procedure for identifying data with validity concerns, supported by John Briere (personal communication, March, 2000), was adopted rather than utilizing *T*-score cut-off levels provided in the TSI Professional Manual because the present population is considered to represent a somewhat divergent population than that of the normative sample described in the manual, with respect to key demographic variables such as age.

Part 1 and Part 2 distributions for all variables of primary interest were then examined for evidence of extreme skewness. As expected, all maltreatment variables were found to have severe positive skews, the result of a large number of students having had 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, some writers (*e.g.*, Tabachnick & Fidell, 1989) have recommended transformation of skewed variables in order to reduce the degree of skewness and have the data better fit the assumption of multivariate normality. Thus, prior to their use in multivariate analyses, all maltreatment variables were transformed by multiplying each by log10 to reduce the severity of skew. Variables used to assess symptom status, that is, the TSI, the BSI, and the BDI, demonstrated mildly skewed distributions. Thus, these variables were not transformed because the benefit obtained by transformation would have been negligible, especially when weighed against the disadvantage that the data might not be readily comparable to those from studies in which these variables were not transformed.

Once maltreatment variables were transformed, relationships among all variables of primary interest 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. Some of the cases eliminated because of TSI validity concerns might otherwise have been identified as univariate or multivariate outliers.

Participant Characteristics

With the 44 cases eliminated because of failure to provide complete data, and 28 cases eliminated because of TSI validity concerns, the resulting sample of 1,214 Part 1 participants upon which analyses were based consisted of 733 females (60.4%) and 481 males (39.6%). This breakdown by gender corresponds closely to the gender composition of the Faculty of Arts student body at the University of Manitoba. In Part 2, with 15 cases eliminated from analyses because of incomplete data, 27 cases eliminated because of coding errors, and 12 cases eliminated because of TSI validity concerns, the resulting sample of 604 students for whom complete and valid Part 1 and Part 2 data were available consisted of 364 females (60.3%) and 240 males (39.7%) a gender breakdown nearly identical to the full Part 1 sample.

Detailed demographic data for the complete Part 1 sample, and for the subsample of participants who completed both Part 1 and Part 2, are presented in Table 1. Participants' ages ranged from 17 to 48 for the full (Part 1) sample, with a mean of 19.8 and a mode of 18. Values were similar for the Part 2 sample, with a range of 17 to 47, a mean age of 20.3, and a modal age of 18. Mean age had increased slightly between Part 1 and Part 2, primarily as a result of students having had birthdays since

Table 1
Demographic Data for All Part 1 Participants and for the Subsample of
Participants Who Completed Both Part 1 and Part 2

GENDER	Part 1		Parts 1 & 2	
	Frequency	Percent	Frequency	Percent
Female	733	60.4	364	60.3
Male	481	39.6	240	39.7
<i>Total</i>	<i>1,214</i>	<i>100%</i>	<i>604</i>	<i>100%</i>

AGE	Part 1		Parts 1 & 2	
	Frequency	Percent	Frequency	Percent
17	118	9.7	8	1.3
18	548	45.1	256	42.4
19	208	17.1	128	21.2
20	101	8.3	64	10.6
21-25	154	12.7	94	15.6
26-30	41	3.4	22	3.6
31-35	16	1.3	15	2.5
36-40	10	.8	4	.7
41-48	12	1.0	7	1.2
(omitted)	6	.5	6	1.0
<i>Total</i>	<i>1,214</i>	<i>100%</i>	<i>604</i>	<i>100%</i>

RACE	Part 1		Parts 1 & 2	
	Frequency	Percent	Frequency	Percent
White	980	80.7	492	81.5
Asian	137	11.3	63	10.4
Aboriginal	38	3.1	24	4.0
Black	31	2.6	12	2.0
Hispanic	12	1.0	8	1.3
Other	16	1.3	5	.8
<i>Total</i>	<i>1,214</i>	<i>100%</i>	<i>604</i>	<i>100%</i>

Table 1 (Continued)
Demographic Data for All Part 1 Participants and for the Subsample of
Participants Who Completed Both Part 1 and Part 2

PLACE OF BIRTH	Part 1		Parts 1 & 2	
	Frequency	Percent	Frequency	Percent
Canada or United States	1086	89.5	544	90.1
Asia	64	5.3	33	5.5
Europe	39	3.3	18	3.0
Mexico, South America, or Central America	11	.9	5	.8
Africa	9	.7	2	.3
Other	5	.4	2	.3
<i>Total</i>	<i>1,214</i>	<i>100%</i>	<i>604</i>	<i>100%</i>

PRIMARY LANGUAGE SPOKEN & UNDERSTOOD	Part 1		Parts 1 & 2	
	Frequency	Percent	Frequency	Percent
English	1155	95.1	575	95.2
French	11	.9	7	1.2
Other European	7	.6	2	.3
Asian	31	2.6	14	2.3
Other	10	.8	6	1.0
<i>Total</i>	<i>1,214</i>	<i>100%</i>	<i>604</i>	<i>100%</i>

NUMBER OF UNIVERSITY COURSES COMPLETED	Part 1		Parts 1 & 2	
	Frequency	Percent	Frequency	Percent
< 5	988	81.4	472	78.1
5-9	144	11.9	81	13.4
10-14	36	3.0	20	3.3
15-19	25	2.1	19	3.1
> 19	21	1.7	12	2.0
<i>Total</i>	<i>1,214</i>	<i>100%</i>	<i>604</i>	<i>100%</i>

Table 1 (Continued)
Demographic Data for All Part 1 Participants and for the Subsample of
Participants Who Completed Both Part 1 and Part 2

MARITAL STATUS	Part 1		Parts 1 & 2	
	Frequency	Percent	Frequency	Percent
Never married	1130	93.1	554	91.7
Married or Common-law	70	5.8	42	7.0
Separated	7	.6	4	.7
Divorced	7	.6	4	.7
Widowed	0	0	0	0
<i>Total</i>	<i>1,214</i>	<i>100%</i>	<i>604</i>	<i>100%</i>

LIVING ARRANGEMENTS	Part 1		Parts 1 & 2	
	Frequency	Percent	Frequency	Percent
Parents or relatives	811	66.8	398	65.9
Friends or roommates	172	14.2	90	14.9
Alone	104	8.6	52	8.6
Spouse or partner	83	6.8	46	7.6
Other	44	3.6	18	3.0
<i>Total</i>	<i>1,214</i>	<i>100%</i>	<i>604</i>	<i>100%</i>

SIZE OF COMMUNITY DURING CHILDHOOD	Part 1		Parts 1 & 2	
	Frequency	Percent	Frequency	Percent
> 500,000	653	53.8	297	49.2
100-500,000	102	8.4	66	10.9
50-100,000	82	6.8	53	8.8
10-50,000	76	6.3	40	6.6
< 10,000	301	24.8	148	24.5
<i>Total</i>	<i>1,214</i>	<i>100%</i>	<i>604</i>	<i>100%</i>

Table 1 (Continued)
Demographic Data for All Part 1 Participants and for the Subsample of
Participants Who Completed Both Part 1 and Part 2

ANNUAL FAMILY INCOME DURING CHILDHOOD	Part 1		Parts 1 & 2	
	Frequency	Percent	Frequency	Percent
< \$15,000	56	4.6	32	5.3
\$15,000-\$24,999	126	10.4	62	10.3
\$25,000-\$39,999	288	23.8	139	23.0
\$40,000-\$54,999	312	25.8	159	26.3
> \$55,000	422	34.9	209	34.6
(Variable)	4	.3	1	.2
(omitted)	2	.2	2	.3
<i>Total</i>	<i>1,214</i>	<i>100%</i>	<i>604</i>	<i>100%</i>

MOTHER'S HIGHEST EDUCATION LEVEL	Part 1		Parts 1 & 2	
	Frequency	Percent	Frequency	Percent
< High school	236	19.4	107	17.7
High school grad	291	24.0	137	22.7
Non-university training	289	23.8	143	23.7
University-no degree	111	9.1	58	9.6
University degree	283	23.3	157	26.0
(Unknown)	4	.4	2	.3
<i>Total</i>	<i>1,214</i>	<i>100%</i>	<i>604</i>	<i>100%</i>

FATHER'S HIGHEST EDUCATION LEVEL	Part 1		Parts 1 & 2	
	Frequency	Percent	Frequency	Percent
< High school	265	21.8	122	20.2
High school grad	200	16.5	105	17.4
Non-university training	252	20.8	104	17.2
University-no degree	109	9.0	54	8.9
University degree	377	31.1	213	35.3
(Unknown)	11	.9	6	1.0
<i>Total</i>	<i>1,214</i>	<i>100%</i>	<i>604</i>	<i>100%</i>

Table 1 (Continued)
Demographic Data for All Part Participants and for the Subsample of
Participants Who Completed Both Part 1 and Part 2

MOTHER'S EMPLOYMENT STATUS	Part 1		Parts 1 & 2	
	Frequency	Percent	Frequency	Percent
Mostly full-time	528	43.5	250	41.4
Mostly part-time	283	23.3	143	23.7
Equal full and part-time	129	10.6	64	10.6
Rarely or never worked	265	21.8	143	23.7
On pension	7	.6	3	.5
(Variable)	1	.1	0	0
(Unknown)	1	.1	1	.2
<i>Total</i>	<i>1,214</i>	<i>100%</i>	<i>604</i>	<i>100%</i>

FATHER'S EMPLOYMENT STATUS	Part 1		Parts 1 & 2	
	Frequency	Percent	Frequency	Percent
Mostly full-time	1122	92.4	561	92.9
Mostly part-time	27	2.2	13	2.2
Equal full and part-time	32	2.6	14	2.3
Rarely or never worked	14	1.2	7	1.2
On pension	10	.8	5	.8
(Variable)	6	.5	2	.3
(Unknown)	3	.3	2	.3
<i>Total</i>	<i>1,214</i>	<i>100%</i>	<i>604</i>	<i>100%</i>

participating in Part 1. All other demographic data were extremely consistent between the Part 1 and the Parts 1&2 samples.

At both parts, the majority of participants were of white race (approximately 81%), had been born in Canada or the United States (approximately 90%), spoke English as a first language (95%), had never been married (92-93%), lived with their parents or other relatives (66-67%), and had completed fewer than 5 full university courses (78-81%). Most had been raised in a family with a combined gross annual income greater than \$40,000 (60-61%), with approximately 35% of the sample having been raised in a family with a gross annual income in excess of \$55,000. Eighty-one to 82% of participants' mothers, and 78-80% of their fathers had completed a minimum of a high school education, with 23-26% of mothers and 31-35% of fathers having had obtained a university degree.

Descriptive Data for the Childhood Maltreatment Questionnaire

Because of the comparatively larger sample size, descriptive data for the CMQ are presented for the full sample (Part 1) participants, although some descriptive data are presented later to enable comparison between Part 1 and Part 2 values. In anticipation that gender differences would be discovered with respect to some of the variables of primary interest, but primarily to facilitate comparison of data from the present study with those to be obtained in future studies, most of the analyses for this study were conducted separately for females and for males, as well as for both genders combined.

Frequencies of Self-reported Maltreatment

Psychological Maltreatment

Frequencies of participants' endorsements of PMQ subscales are presented in Table 2 for both genders combined, in Table 3 for females, and in Table 4 for males. In the interest of brevity, summated frequencies are reported by subscale, rather than

by individual item. Thus, the *never* column indicates frequencies of participants who did not positively endorse any of the 6 items comprising that particular subscale. The *once or twice* column indicates frequencies of participants who endorsed at least one of the six subscale items at that level, but none any higher than that level, and so forth. The final row of Table 2 indicates frequencies of participants' responses in this manner for the entire set of 72 PMQ items considered together. Taken as a whole, the data indicate that almost all participants (99.2%) reported having had experienced at least one incidence during childhood of a parental behavior considered to constitute psychological maltreatment. This is not surprising, given that behaviors such as derogatory comments made to children, and even verbal threats, are commonplace in our society. Other behaviors, such as controlling, at low levels or in a restricted set of circumstances, might even be considered to be good parenting; it is at the extreme that such behaviors are likely to be considered to constitute psychological maltreatment.

Thus, it may be of some concern that 62% of participants indicated that they had experienced behaviors reflecting one or more subforms of psychological maltreatment *often* or *very often*, and 32% indicated that they had experienced some form of psychological maltreatment *very often*. Considering frequencies for the various subforms of psychological maltreatment, Controlling/Stifling Independence and Verbal Terrorism were most commonly reported, with greater than 40% and 27%, respectively, of both genders reporting having had experienced these subforms *often* to *very often*. In fact, most of the subforms of psychological maltreatment appear to have been experienced relatively commonly, with parental behaviors reflective of Degrading, Denying Emotional Responsiveness, Exploiting, Isolating, and Rejecting having been reported as occurring *often* to *very often* to between 11.5% and 21.7% of females, and 11.8% to 18.7% of males during childhood.

Table 2
Frequencies of Endorsements of Psychological Maltreatment Items (by Subscale) —
All Participants Combined^a

Form of Psychological Maltreatment	<i>Never</i>		<i>Once or Twice</i>		<i>Sometimes</i>		<i>Often</i>		<i>Very Often</i>	
	f	(%)	f	(%)	f	(%)	f	(%)	f	(%)
Controlling/Stifling Independence	40	(3.3)	204	(16.8)	458	(37.7)	285	(23.5)	227	(18.7)
Corrupting	831	(68.5)	249	(20.5)	74	(6.0)	34	(2.8)	26	(2.1)
Degrading	312	(25.7)	322	(26.5)	406	(33.4)	94	(7.7)	80	(6.6)
Denying Emotional Responsiveness	191	(15.7)	443	(36.5)	331	(27.3)	143	(11.8)	106	(8.7)
Exploiting	357	(29.4)	447	(36.8)	269	(22.2)	95	(7.8)	46	(3.8)
Isolating	225	(18.5)	421	(34.7)	348	(28.7)	134	(11.0)	86	(7.1)
Physical Neglect	800	(65.9)	221	(18.2)	101	(8.3)	40	(3.3)	52	(4.3)
Physical Terrorism	578	(47.6)	402	(33.1)	158	(13.0)	43	(3.5)	33	(2.7)
Rejecting	422	(34.8)	391	(32.2)	242	(19.9)	97	(8.0)	62	(5.1)
Unreliable Care	169	(13.9)	485	(40.0)	329	(27.1)	145	(11.9)	86	(7.1)
Verbal Terrorism	88	(7.2)	334	(27.5)	456	(37.6)	210	(17.3)	126	(10.4)
Witness to Violence	649	(53.5)	307	(25.3)	165	(13.6)	57	(4.7)	36	(3.0)
<i>Total PMQ^b</i>	10	(0.8)	70	(5.8)	384	(31.6)	354	(29.2)	396	(32.6)

^a All students who participated in Part 1 (N = 1,214).

^b All Psychological Maltreatment Questionnaire items considered together.

Table 3
Frequencies of Endorsements of Psychological Maltreatment Items (by Subscale) —
Female Participants ^a

Form of Psychological Maltreatment	<i>Never</i>		<i>Once or Twice</i>		<i>Sometimes</i>		<i>Often</i>		<i>Very Often</i>	
	f	(%)	f	(%)	f	(%)	f	(%)	f	(%)
Controlling/Stifling Independence	24	(3.3)	116	(15.8)	281	(38.3)	165	(22.5)	147	(20.1)
Corrupting	558	(76.1)	114	(15.6)	30	(4.1)	18	(2.5)	13	(1.7)
Degrading	198	(27.0)	262	(35.7)	168	(22.9)	73	(10.0)	32	(4.4)
Denying Emotional Responsiveness	120	(16.4)	340	(46.4)	114	(15.6)	106	(14.5)	53	(7.2)
Exploiting	243	(33.2)	265	(36.2)	141	(19.2)	21	(2.9)	63	(8.6)
Isolating	137	(18.7)	249	(34.0)	206	(28.1)	78	(10.6)	35	(4.8)
Physical Neglect	510	(69.6)	110	(15.0)	55	(7.5)	23	(3.1)	35	(4.8)
Physical Terrorism	371	(50.6)	224	(30.6)	87	(11.9)	25	(3.4)	26	(3.5)
Rejecting	266	(36.3)	227	(31.0)	141	(19.2)	55	(7.5)	44	(6.0)
Unreliable Care	93	(12.7)	296	(40.4)	197	(26.9)	84	(11.4)	63	(8.6)
Verbal Terrorism	53	(7.2)	221	(30.2)	254	(34.7)	119	(16.2)	86	(11.7)
Witness to Violence	402	(54.8)	179	(2.4)	90	(12.3)	33	(4.5)	29	(4.0)
Total PMQ^b	5	(0.7)	42	(5.7)	236	(32.2)	198	(27.0)	252	(34.4)

^a All females who participated in Part 1 (N = 733).

^b All Psychological Maltreatment Questionnaire items considered together.

Table 4
Frequencies of Endorsements of Psychological Maltreatment Items (by Subscale) —
Male Participants^a

Form of Psychological Maltreatment	Never		Once or Twice		Sometimes		Often		Very Often	
	f	(%)	f	(%)	f	(%)	f	(%)	f	(%)
Controlling/Stifling Independence	16	(3.3)	88	(18.3)	177	(36.8)	120	(24.9)	80	(16.6)
Corrupting	273	(56.8)	135	(28.1)	44	(9.1)	16	(3.3)	13	(2.7)
Degrading	114	(23.7)	187	(38.9)	111	(23.1)	42	(8.7)	27	(5.6)
Denying Emotional Responsiveness	71	(14.8)	180	(37.4)	140	(29.1)	61	(12.7)	29	(6.0)
Exploiting	114	(23.7)	182	(37.8)	128	(26.6)	43	(8.9)	14	(2.9)
Isolating	88	(18.3)	172	(35.8)	142	(29.5)	56	(11.6)	23	(4.8)
Physical Neglect	290	(60.3)	111	(23.1)	46	(9.6)	17	(3.5)	17	(3.5)
Physical Terrorism	207	(43.0)	178	(37.0)	71	(14.8)	18	(3.7)	7	(1.5)
Rejecting	156	(32.3)	164	(34.1)	101	(21.0)	42	(8.7)	18	(3.7)
Unreliable Care	76	(15.8)	189	(39.3)	132	(27.4)	61	(12.7)	23	(4.8)
Verbal Terrorism	35	(7.3)	133	(27.7)	182	(37.8)	91	(18.9)	40	(8.3)
Witness to Violence	247	(51.4)	128	(26.6)	75	(15.6)	24	(5.0)	7	(1.5)
<i>Total PMQ^b</i>	2	(1.0)	28	(5.8)	148	(30.8)	156	(32.4)	144	(29.9)

^a All males who participated in Part 1 ($N = 481$).

^b All Psychological Maltreatment Questionnaire items considered together.

Physical Abuse

Given the smaller number of items comprising the PAQ, frequencies are presented separately for each item in Table 5 for both genders combined, in Table 6 for females, and in Table 7 for males. Considering the severity of these items, each representing relatively high risk for injury, even a single occurrence may be cause for concern. Yet, 59% of females and 67% of males positively endorsed one or more PAQ items, indicative of having had experienced some type of physical abuse at least once during childhood. At higher levels of endorsement, 26.6% of females and 30.8% of males indicated that they had experienced some form of physical abuse *sometimes* to *very often*, and greater than 10% of both females and males reported having had experienced some form of physical abuse *often* to *very often* during childhood.

Predictably, the most commonly experienced physically abusive behaviors reported were those that may be considered relatively less severe, such as being hit or slapped with an open hand (at least once for 34.8% of females and 37.0% of males) or being hit with an object, presumably during spanking (at least once for 34.5% of females and 46.2% of males). However, more severe forms of abuse also appeared to have been experienced relatively commonly, such as receiving a spanking resulting in bruising or bleeding (at least once for 20.6% of females and 22.2% for males), being pushed, thrown, or knocked down (at least once for 15.4% of females and 21.4% for males), or even being kicked, kneed, or elbowed (at least once for 7.5% of females and 10.4% for males), or hit or punched with a closed fist (at least once for 5.3% of females and 7.5% for males).

Sexual Abuse

Frequencies for participants' reports of sexual abuse as perpetrated by a parental figure are presented in Table 8 separately by item for both genders combined, as well as for females and males. Frequencies are presented in Table 9 for sexual abuse

perpetrated by a nonparent. Because definitions of sexual abuse typically consider this form of abuse to have occurred when a single event has been experienced, and in the interest of brevity, frequencies are reported in these tables only for participants who endorsed having had experienced the respective act at least once.

Results indicate that 6.1% of females and 8.3% of males experienced at least one instance of sexual harassment by a parental figure, whereas 4.9% of females and 4.8% of males experienced one or more noncontact sexual abuse behaviors, and 4.4% of females and 3.5% of males experienced one or more contact sexual abuse behaviors by a parental figure.

For sexual abuse perpetrated by a nonparent, which included in the criteria both endorsement of sexual behavior that was unwanted, as well as cases where sexual contact might have been wanted, but the initiator of the contact was 5 or more years older than the child, frequencies of sexual abuse were considerably higher. Thus, 57.2% of females and 45.7% of males reported having had experienced at least one instance of sexual harassment by a nonparent, whereas 28.4% of females and 28.9% of males reported one or more noncontact sexual abuse experiences, and 45.0% of females and 36.6% of males reported one or more contact sexual abuse experiences by a nonparent.

Combined, 58.8% of female students and 48.0% of males reported having had experienced sexual harassment by either a parent or by a nonparent, 30.7% of females and 31.2% of males reported having had experienced noncontact sexual abuse by either a parent or by a nonparent, and 47.1% of females and 37.6% of males reported having had experienced contact sexual abuse by either a parent or by a nonparent. Four-and-one-half percent of female students and 6.0% of males reported having had experienced sexual harassment by both a parent and by a nonparent, 2.6% of females and 2.5% of males reported having had experienced noncontact sexual abuse by both a parent and by

Table 5
Frequencies of Endorsements of Items Indicating Physical Abuse by a Parental Figure —
All Participants Combined^a

Physical Abuse Questionnaire Items	<i>Never</i>		<i>Once or Twice</i>		<i>Sometimes</i>		<i>Often</i>		<i>Very Often</i>	
	f	(%)	f	(%)	f	(%)	f	(%)	f	(%)
<i>Physical Abuse Subscale:</i>										
Spank you to bruise or bleed	956	(78.7)	146	(12.0)	75	(6.2)	19	(1.6)	18	(1.5)
Twist, yank, or bend a limb	934	(76.9)	191	(15.7)	54	(4.4)	19	(1.6)	16	(1.3)
Push throw or knock you down	998	(82.2)	153	(12.6)	30	(2.5)	17	(1.4)	16	(1.3)
Hit or punch with closed fist	1139	(93.8)	39	(3.2)	18	(1.5)	10	(0.8)	8	(0.7)
Beat you up	1122	(92.4)	52	(4.3)	25	(2.1)	7	(0.6)	8	(0.7)
Hit or slap with open hand	781	(64.3)	279	(23.0)	108	(8.9)	34	(2.8)	12	(1.0)
Kick, knee, or elbow you	1109	(91.4)	73	(6.0)	23	(1.9)	6	(0.5)	3	(0.2)
Throw an object causing harm	1149	(94.6)	97	(3.9)	12	(1.0)	4	(0.3)	2	(0.2)
Pull your hair or ear	900	(74.1)	196	(16.1)	77	(6.3)	28	(2.3)	13	(1.1)
Hit you with an object	739	(60.9)	284	(23.4)	144	(11.9)	33	(2.7)	14	(1.2)
<i>Total PA Subscale^b</i>	461	(38.0)	423	(34.8)	212	(17.5)	72	(5.9)	46	(3.8)
<i>Severe Physical Abuse Subscale:</i>										
Burn or scald you	1194	(98.4)	10	(0.8)	6	(0.5)	2	(0.2)	2	(0.2)
Harm you with a weapon	1166	(96.0)	31	(2.6)	10	(0.8)	3	(0.2)	4	(0.3)
Break your bones or teeth	1195	(98.4)	10	(0.8)	4	(0.3)	2	(0.2)	3	(0.2)
Choke you	1168	(96.2)	29	(2.4)	12	(1.0)	1	(0.1)	4	(0.3)
Torture you	1174	(96.7)	22	(1.8)	10	(0.8)	5	(0.4)	3	(0.2)
Try to kill you	1196	(98.5)	8	(0.7)	6	(0.5)	1	(0.4)	3	(0.2)
<i>Total Severe PA Subscale^c</i>	1104	(90.9)	58	(4.8)	29	(2.4)	8	(0.7)	15	(1.2)
<i>Total PAQ^d</i>	456	(37.6)	415	(34.2)	214	(17.6)	75	(6.2)	54	(4.4)

^a *N* = 1,214

^b All Physical Abuse Scale items considered together

^c All Severe Physical Abuse Scale items considered together

^d All Physical Abuse Questionnaire items considered together

Table 6
Frequencies of Endorsements of Items Indicating Physical Abuse by a Parental Figure —
Female Participants^a

Physical Abuse Questionnaire Items	<i>Never</i>		<i>Once or Twice</i>		<i>Sometimes</i>		<i>Often</i>		<i>Very Often</i>	
	f	(%)	f	(%)	f	(%)	f	(%)	f	(%)
<i>Physical Abuse Subscale:</i>										
Spank you to bruise or bleed	582	(79.4)	83	(11.3)	39	(5.3)	15	(2.0)	14	(1.9)
Twist, yank, or bend a limb	587	(80.1)	86	(11.7)	32	(4.4)	17	(2.3)	11	(1.5)
Push throw or knock you down	620	(84.6)	75	(10.2)	16	(2.2)	10	(1.4)	12	(1.6)
Hit or punch with closed fist	694	(94.7)	16	(2.2)	11	(1.5)	6	(0.8)	6	(0.8)
Beat you up	681	(92.9)	28	(3.8)	12	(1.6)	6	(0.8)	6	(0.8)
Hit or slap with open hand	478	(65.2)	164	(22.4)	65	(8.9)	18	(2.5)	8	(1.1)
Kick, knee, or elbow you	678	(92.5)	38	(5.2)	9	(1.2)	5	(0.7)	3	(0.4)
Throw an object causing harm	701	(95.6)	21	(2.9)	6	(0.8)	3	(0.4)	2	(0.3)
Pull your hair or ear	564	(76.9)	101	(13.8)	39	(5.3)	23	(3.1)	6	(0.8)
Hit you with an object	480	(65.5)	150	(20.5)	75	(10.2)	17	(2.3)	11	(1.5)
<i>Total PA Subscale^b</i>	305	(41.6)	240	(32.7)	116	(15.8)	41	(5.6)	31	(4.2)
<i>Severe Physical Abuse Subscale:</i>										
Burn or scald you	725	(98.9)	2	(0.3)	3	(0.4)	2	(0.3)	1	(0.1)
Harm you with a weapon	711	(97.0)	12	(1.6)	4	(0.5)	2	(0.3)	4	(0.5)
Break your bones or teeth	725	(98.9)	2	(0.3)	3	(0.4)	0	(0)	3	(0.4)
Choke you	708	(96.6)	13	(1.8)	9	(1.2)	0	(0)	3	(0.4)
Torture you	712	(97.1)	11	(1.5)	4	(0.5)	3	(0.4)	3	(0.4)
Try to kill you	721	(98.4)	5	(.7)	4	(0.5)	1	(0.1)	2	(0.3)
<i>Total Severe PA Subscale^c</i>	679	(92.6)	27	(3.7)	12	(1.6)	2	(0.3)	13	(1.8)
<i>Total PAQ^d</i>	300	(40.9)	238	(32.5)	115	(15.7)	42	(5.7)	38	(5.2)

^a *N* = 733

^b *All Physical Abuse Scale items considered together*

^c *All Severe Physical Abuse Scale items considered together*

^d *All Physical Abuse Questionnaire items considered together*

Table 7
Frequencies of Endorsements of Items Indicating Physical Abuse by a Parental Figure —
Male Participants^a

Physical Abuse Questionnaire Items	Never		Once or Twice		Sometimes		Often		Very Often	
	f	(%)	f	(%)	f	(%)	f	(%)	f	(%)
<i>Physical Abuse Subscale:</i>										
Spank you to bruise or bleed	374	(77.8)	63	(13.1)	36	(7.5)	4	(0.8)	4	(0.8)
Twist, yank, or bend a limb	347	(72.1)	105	(21.8)	22	(4.6)	2	(0.4)	5	(1.0)
Push throw or knock you down	378	(78.6)	78	(16.2)	14	(2.9)	7	(1.5)	4	(0.8)
Hit or punch with closed fist	445	(92.5)	23	(4.8)	7	(1.5)	4	(0.8)	2	(0.4)
Beat you up	441	(91.7)	24	(5.0)	13	(2.7)	1	(0.2)	2	(0.4)
Hit or slap with open hand	303	(63.0)	115	(23.9)	43	(8.9)	16	(3.3)	4	(0.8)
Kick, knee, or elbow you	431	(89.6)	35	(7.3)	14	(2.9)	1	(0.2)	0	(0)
Throw an object causing harm	448	(93.1)	26	(5.4)	6	(1.2)	1	(0.2)	0	(0)
Pull your hair or ear	336	(69.9)	95	(19.8)	38	(7.9)	5	(1.0)	7	(1.5)
Hit you with an object	259	(53.8)	134	(27.9)	69	(14.3)	16	(3.3)	3	(0.6)
<i>Total PA Subscale^b</i>	156	(32.4)	183	(3.8)	96	(20.0)	31	(6.4)	15	(3.1)
<i>Severe Physical Abuse Subscale:</i>										
Burn or scald you	469	(97.5)	8	(1.7)	3	(0.6)	0	(0)	1	(0.2)
Harm you with a weapon	455	(94.6)	19	(4.0)	6	(1.2)	1	(0.2)	0	(0)
Break your bones or teeth	470	(97.7)	8	(1.7)	1	(0.2)	2	(0.4)	0	(0)
Choke you	460	(95.6)	16	(3.3)	3	(0.6)	1	(0.2)	1	(0.2)
Torture you	462	(96.0)	11	(2.3)	6	(1.2)	2	(0.4)	0	(0)
Try to kill you	475	(98.8)	3	(0.6)	2	(0.4)	0	(0)	1	(0.2)
<i>Total Severe PA Subscale^c</i>	425	(88.4)	31	(6.4)	17	(3.5)	6	(1.2)	2	(0.4)
<i>Total PAQ^d</i>	156	(32.4)	177	(36.8)	99	(20.6)	33	(6.9)	16	(3.3)

^a *N* = 481

^b All Physical Abuse subscale items considered together

^c All Severe Physical Abuse subscale items considered together

^d All Physical Abuse Questionnaire items considered together

Table 8
Frequencies of Participants Who Positively Endorsed Items Indicating Sexual Harassment, Noncontact Sexual Abuse, and Contact Sexual Abuse by a Parental Figure^a

Sexual Harassment and Noncontact Sexual Abuse Items	All ^a		Females ^b		Males ^c	
	f	(%)	f	(%)	f	(%)
<i>Sexual Harassment Subscale:</i>						
Look or stare sexually	33	(2.7)	19	(2.6)	14	(2.9)
Sexual comments to you	47	(3.9)	30	(4.1)	17	(3.5)
Sexual comments about you	48	(4.0)	19	(2.6)	29	(6.0)
Talk in a sexual way	29	(2.4)	14	(1.9)	15	(3.1)
Sexual invitation	16	(1.3)	8	(1.1)	8	(1.7)
Sexual suggestion	19	(1.6)	10	(1.4)	9	(1.9)
<i>Total SA-Harassment Subscale^d</i>	<i>85</i>	<i>(7.0)</i>	<i>45</i>	<i>(6.1)</i>	<i>40</i>	<i>(8.3)</i>
<i>Noncontact Sexual Abuse Subscale:</i>						
Sexual exposure to you	37	(3.0)	23	(3.1)	14	(2.9)
Make you expose sexually	29	(2.4)	16	(2.2)	13	(2.7)
Sexual acts in front of you	15	(1.2)	9	(1.2)	6	(1.2)
Make you disrobe	20	(1.6)	11	(1.5)	9	(1.9)
Get you to touch yourself sexually	14	(1.2)	6	(0.8)	8	(1.7)
Take sexually explicit pictures of you	5	(0.4)	3	(0.4)	2	(0.4)
<i>Total SA-Noncontact Subscale^e</i>	<i>59</i>	<i>(4.9)</i>	<i>59</i>	<i>(4.9)</i>	<i>23</i>	<i>(4.8)</i>
<i>Contact Sexual Abuse Subscale:</i>						
Rub, touch, or grab your genitals	34	(2.8)	24	(3.3)	10	(2.1)
Kiss or hug you sexually	19	(1.6)	12	(1.6)	7	(1.5)
Get you do something sexual	13	(1.1)	7	(1.0)	6	(1.2)
Rub or fondle your genitals	14	(1.2)	9	(1.2)	5	(1.0)
Make you fondle their genitals	11	(0.9)	6	(0.8)	5	(1.0)
Insert a finger/object in vagina or anus	11	(0.9)	5	(0.7)	6	(1.2)
Touch your genitals orally	7	(0.6)	5	(0.7)	2	(0.4)
Make you touch their genitals orally	11	(0.9)	3	(0.4)	8	(1.7)
Attempted intercourse	11	(0.9)	5	(0.7)	6	(1.2)
Intercourse	15	(1.2)	9	(1.2)	6	(1.2)
<i>Total SA-Contact Subscale^f</i>	<i>49</i>	<i>(4.0)</i>	<i>32</i>	<i>(4.4)</i>	<i>17</i>	<i>(3.5)</i>
<i>Total SAQ-P^g</i>	<i>135</i>	<i>(11.1)</i>	<i>77</i>	<i>(10.5)</i>	<i>58</i>	<i>(12.1)</i>

^a $N = 1,214$

^b $n = 733$

^c $n = 481$

^d All Sexual Harassment subscale items considered together

^e All Sexual Abuse Noncontact subscale items considered together

^f All Sexual Abuse Contact subscale items considered together

^g All Sexual Abuse Questionnaire-Parental version items considered together

Table 9
Frequencies of Participants Who Positively Endorsed Items Indicating Sexual Harassment, Noncontact Sexual Abuse, and Contact Sexual Abuse by a Nonparent^a

Sexual Harassment and Noncontact Sexual Abuse Items	All ^a		Females ^b		Males ^c	
	f	(%)	f	(%)	f	(%)
<i>Sexual Harassment Subscale:</i>						
Look or stare sexually	524	(43.2)	354	(48.3)	170	(35.3)
Sexual comments to you	496	(40.9)	335	(45.7)	161	(33.5)
Sexual comments about you	397	(32.7)	264	(36.0)	133	(27.7)
Talk in a sexual way	481	(39.6)	314	(42.8)	167	(34.7)
Sexual invitation	412	(33.9)	276	(37.7)	136	(28.3)
Sexual suggestion	430	(35.4)	280	(38.2)	150	(31.2)
<i>Total SA-Harassment Subscale^d</i>	<i>639</i>	<i>(52.6)</i>	<i>419</i>	<i>(57.2)</i>	<i>220</i>	<i>(45.7)</i>
<i>Noncontact Sexual Abuse Subscale:</i>						
Sexual exposure to you	316	(26.0)	187	(25.5)	129	(26.8)
Make you expose sexually	172	(14.2)	105	(14.3)	67	(13.9)
Sexual acts in front of you	54	(3.4)	28	(3.8)	26	(5.4)
Make you disrobe	79	(6.5)	54	(7.4)	25	(5.2)
Get you to touch yourself sexually	89	(7.3)	53	(7.2)	36	(7.5)
Take sexually explicit pictures of you	17	(1.4)	8	(1.1)	9	(1.9)
<i>Total SA-Noncontact Subscale^e</i>	<i>347</i>	<i>(28.6)</i>	<i>208</i>	<i>(28.4)</i>	<i>139</i>	<i>(28.9)</i>
<i>Contact Sexual Abuse Subscale:</i>						
Rub, touch, or grab your genitals	390	(32.1)	258	(35.2)	132	(27.4)
Kiss or hug you sexually	411	(33.9)	261	(35.6)	150	(31.2)
Get you do something sexual	328	(27.0)	204	(27.8)	124	(25.8)
Rub or fondle your genitals	370	(30.5)	240	(32.7)	130	(27.0)
Make you fondle their genitals	301	(24.8)	182	(24.8)	119	(24.7)
Insert a finger/object in vagina or anus	174	(14.3)	148	(20.2)	26	(5.4)
Touch your genitals orally	236	(19.4)	158	(21.6)	78	(16.2)
Make you touch their genitals orally	194	(16.0)	116	(15.8)	78	(16.2)
Attempted intercourse	154	(12.7)	114	(15.6)	40	(8.3)
Intercourse	162	(13.3)	110	(15.0)	52	(10.8)
<i>Total SA-Contact Subscale^f</i>	<i>506</i>	<i>(41.7)</i>	<i>330</i>	<i>(45.0)</i>	<i>176</i>	<i>(36.6)</i>
<i>Total SAQ-NP^g</i>	<i>677</i>	<i>(55.8)</i>	<i>445</i>	<i>(60.7)</i>	<i>232</i>	<i>(48.2)</i>

^a $N = 1,214$

^b $n = 733$

^c $n = 481$

^d All Sexual Harassment subscale items considered together

^e All Sexual Abuse Noncontact subscale items considered together

^f All Sexual Abuse Contact subscale items considered together

^g All Sexual Abuse Questionnaire-Nonparental version items considered together

a nonparent, and 2.3% of females and 2.5% of males reported having had experienced contact sexual abuse by both a parent and by a nonparent.

Co-occurrence of Broad Forms of Maltreatment

To inform the question of the extent to which the various broad forms of maltreatment (*i.e.*, psychological, physical, and sexual) occurred together in a given student's childhood experience, frequencies were tabulated for each of these forms alone and in combination with one another. For consistency with reports of psychological maltreatment and physical abuse, participants' experiences of sexual abuse were included in these tabulations only with respect to sexual abuse perpetrated by a parent figure. Thus, the results presented in this section reflect only the extent to which participants were subjected to various combinations of maltreatment by a parental figure. In addition, because noncontact experiences are not included in all definitions of sexual abuse, the more conservative approach was taken of considering only contact sexual abuse experiences in these tabulations.

Tabulation of these frequencies required that a point be chosen for students' reports of each form of maltreatment where some might be considered to have been maltreated and others not. As discussed in a earlier section, this is rarely a simple determination to make, and requires the drawing of somewhat arbitrary lines. In addition, because of qualitative differences among the broad forms of abuse, the line might best be drawn at a different point for each.

For present descriptive purposes, students 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). As indicated in the previous section, this criterion was met by 4% of participants in the present sample (4.4% of females and 3.5% 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, less stringent criteria were chosen. Thus, participants were considered to have been physically abused if they reported having had experienced any of the items comprising the PAQ somewhere between *sometimes* and *very often*. This was thought to imply that the physically violent parental acts these individuals experienced represented more than one or two isolated incidents and, as well, identified students who scored above the median on the PAQ. This criterion was met by 28.3% of participants (26.6% of females and 30.8% of males).

Considering students to have been psychologically maltreated if they scored above the median on a scale comprised of all PMQ subscale items (*i.e.*, a total psychological maltreatment score) would also identify those who reported having had experienced some form of psychological maltreatment *sometimes* to *very often*. However, because it is considerably more difficult to determine, relative to sexual abuse and some types of physical abuse, at what point a given individual should be considered psychologically maltreated, a more conservative criterion was chosen for present descriptive purposes. Specifically, only those participants who reported having had experienced one or more 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, roughly 62% of the sample (61.7% of females and 63.4% of males) could be considered to have been psychologically maltreated.

Table 10 presents frequencies for the various combinations of maltreatment in which the above criteria were applied to identify members of the three maltreatment groups. Perhaps more instructive, Tables 11 through 13 present frequencies of students classified as having had experienced one "target" broad form of maltreatment who also

Table 10
Frequencies of Participants Who Reported Various Combinations of Broad Forms of Parental Maltreatment^a

Combinations of Broad Forms of Maltreatment	All Participants			Females			Males		
	f	(%)	(% of Maltx) ^b	f	(%)	(% of Maltx) ^c	f	(%)	(% of Maltx) ^d
Not Maltreated	388	(32.0)		244	(33.3)		144	(29.9)	
Psychological Maltreatment only	407	(33.5)	(49.3)	255	(34.8)	(52.1)	152	(31.6)	(46.2)
Physical Abuse only	46	(3.8)	(5.6)	26	(3.5)	(5.3)	20	(4.2)	(6.0)
Sexual Abuse only	23	(1.9)	(2.8)	11	(1.5)	(2.2)	12	(2.5)	(3.6)
Psychological and Physical only	238	(19.6)	(28.8)	131	(17.9)	(26.8)	107	(22.2)	(32.5)
Psychological and Sexual only	53	(4.4)	(6.4)	28	(3.8)	(5.7)	25	(5.2)	(7.6)
Physical and Sexual only	7	(0.6)	(0.8)	2	(0.3)	(0.4)	5	(1.0)	(1.5)
Psychological, Physical, and Sexual	52	(4.3)	(6.3)	36	(4.9)	(7.4)	16	(3.3)	(4.9)
<i>Total</i>	<i>1214</i>	<i>(100)</i>	<i>(100)</i>	<i>733</i>	<i>(100)</i>	<i>(100)</i>	<i>481</i>	<i>(100)</i>	<i>(100)</i>

^a Psychological Maltreatment defined by endorsement of at least one PMQ items often to very often;

Physical Abuse defined by endorsement of at least one PAQ item sometimes to very often;

Sexual Abuse defined by endorsement of at least one Parental SAQ item any frequency.

^b Percentage of all maltreated participants (total n = 826)

^c Percentage of maltreated females (total n = 489)

^d Percentage of all maltreated males (total n = 337)

Table 11
Frequencies of Participants 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	290	(38.7)	53	(11.4)
No Physical Abuse ^d	460	(61.3)	411	(88.6)
Sexual Abuse ^e	105	(14.0)	30	(6.5)
No Sexual Abuse ^f	645	(86.0)	434	(93.5)

Table 12
Frequencies of Participants Who Reported Physical Abuse by a Parent and Who Also Reported Other Broad Forms of Parental Maltreatment

Other Forms of Maltreatment Reported	Physically Abused ^c		Not Physically Abused ^d	
	f	(%)	f	(%)
Psychological Maltreatment ^a	290	(84.5)	460	(52.8)
No Psychological Maltreatment ^b	53	(15.5)	411	(47.2)
Sexual Abuse ^e	59	(17.2)	76	(8.7)
No Sexual Abuse ^f	284	(82.8)	795	(91.3)

Table 13
Frequencies of Participants Who Reported Sexual Abuse by a Parent and Who Also Reported Other Broad Forms of Parental Maltreatment

Other Forms of Maltreatment Reported	Sexually Abused ^e		Not Sexually Abused ^f	
	f	(%)	f	(%)
Psychological Maltreatment ^a	105	(77.8)	645	(59.8)
No Psychological Maltreatment ^b	30	(22.2)	434	(40.2)
Physical Abuse ^c	59	(43.7)	284	(26.3)
No Physical Abuse ^d	76	(56.3)	795	(73.7)

^a Participants who endorsed one or more Psychological Maltreatment items as often or very often (n = 750)

^b Participants who endorsed all Psychological Maltreatment items as never to sometimes (n = 464)

^c Participants who endorsed one or more Physical Abuse items as sometimes to very often (n = 343)

^d Participants who endorsed all Physical Abuse items as never or once or twice (n = 871)

^e Participants who positively endorsed one or more Parental Contact Sexual Abuse Items (n = 135)

^f Participants who did not positively endorse any Parental Contact Sexual Abuse items (n = 1079)

experienced one or more other broad forms of maltreatment. As these data indicate, if the definitions described above are applied, 68% of participants could be considered to have suffered one or more forms of maltreatment during childhood. Psychological maltreatment was much more likely to have occurred alone (*i.e.*, without concomitant other forms of maltreatment) than were physical abuse or sexual abuse. In addition, those who experienced a particular “target” broad form of maltreatment (*e.g.*, sexual abuse) were more likely to have experienced the other broad forms of maltreatment (*i.e.*, psychological maltreatment and physical abuse) than were those students 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.

Perhaps most instructive, adding to other research findings and general impressions 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 39% of students who reported frequent psychological maltreatment also reported physical abuse and 14% of psychologically maltreated students also reported sexual abuse.

CMQ Mean Values and Internal Consistency Reliability Values

Mean scores and standard deviations, as well as alpha internal consistency reliability coefficients, were computed for each of the CMQ subscales and for the total PMQ, PAQ, SAQ-Parental version, and SAQ-Nonparental version. In addition, *t*-tests were computed to compare females' and males' mean CMQ scores.

Mean score values for all CMQ scales and subscales, presented in Table 14, are very similar to those obtained with the previous university student sample (*e.g.*, previous sample mean total PMQ score for 1,179 females and males = 107.8, *sd* = 34.3; current sample mean total PMQ score = 112.6, *sd* = 37.3; previous mean total

PAQ score = 19.4, $sd = 5.4$; current mean total PAQ score = 19.2, $sd = 5.7$). *T*-test comparison of CMQ mean scores for females and males were conducted using a significance level of .001, given that trivial differences could be considered statistically significant with such a large sample size, even at this level of alpha. At this level, no gender differences were evident for the total score PMQ, PAQ, SAQ-Parental version, or SAQ-Nonparental version. Subscale score gender differences were found with respect only to the PMQ Corrupting and Exploiting (Nonsexual) subscales, with males' scores higher on both of these (effect size = .31 and .19, respectively), and with respect to the SAQ-Nonparental version Sexual Harassment subscale, with females' scores higher (effect size = .23).

Internal consistency reliability coefficients, also presented in Table 14, were found to be moderate to high for all PMQ subscales, with the exception of Corrupting, which was relatively low, at .62. Overall, Cronbach alpha values for PMQ subscales ranged from .62 to .91, with an average value of .82. The alpha reliability value for the total score PMQ was .97. The low alpha value observed for the Corrupting subscale is likely due in large part to the low variability in distribution for this subscale, the result of few students having positively endorsed items comprising the subscale. Such findings are to be expected when participants are assessed with respect to their experiences of relatively extreme or unusual events, such as those comprising the Corrupting or Neglect subscales, particularly in a population generally not considered to have been prone to experiencing such events (*e.g.*, those whose life circumstances have been fortunate enough to enable them to become university students). As a result of the low level of endorsement of Corrupting items in this sample, findings pertaining to this subscale should be interpreted very cautiously.

Table 14
CMQ Mean Scores and Standard Deviations for all Part 1 Participants^a

Form of Maltreatment	Potential Range	All Participants ^b		Females ^c		Males ^d		t-test ^f
		α ^e	Mean (SD)	α	Mean (SD)	α	Mean (SD)	<i>t</i>
PMQ Total Score	72-360	.97	112.6 (35.7)	.97	112.2 (37.3)	.97	113.2 (33.0)	-.52
<i>Subscales:</i>								
Controlling/Stifling Independence	6-30	.85	13.1 (4.9)	.85	13.2 (5.0)	.83	13.0 (4.6)	.70
Corrupting	6-30	.62	6.7 (1.6)	.63	6.5 (1.5)	.60	7.0 (1.7)	<i>-5.14</i>
Degrading	6-30	.90	9.9 (4.6)	.92	10.0 (4.9)	.87	9.9 (4.2)	.22
Denying Emotional Responsiveness	6-30	.88	10.9 (4.8)	.88	10.9 (4.9)	.88	10.9 (4.5)	-.06
Exploiting (Nonsexual)	6-30	.78	8.8 (3.3)	.78	8.5 (3.3)	.77	9.1 (3.3)	<i>-3.22</i>
Isolating	6-30	.85	10.0 (4.1)	.86	10.0 (4.3)	.83	9.8 (3.8)	.76
Physical Neglect	6-30	.71	7.1 (2.2)	.69	7.0 (2.2)	.71	7.2 (2.3)	-1.79
Physical Terrorism	6-30	.84	7.8 (3.1)	.85	7.8 (3.2)	.81	7.9 (2.8)	-.63
Rejecting	6-30	.91	9.2 (4.4)	.92	9.2 (4.6)	.89	9.2 (4.0)	.22
Unreliable & Inconsistent Care	6-30	.84	10.6 (4.2)	.84	10.6 (4.4)	.83	10.6 (4.0)	.40
Verbal Terrorism	6-30	.85	10.9 (4.3)	.86	10.8 (4.5)	.84	11.0 (4.1)	-.86
Witness to Violence	6-30	.78	7.6 (2.7)	.79	7.6 (2.9)	.73	7.6 (2.5)	.29
PAQ Total Score	16-80	.89	19.2 (5.7)	.91	19.1 (6.1)	.87	19.4 (5.1)	-1.21
<i>Subscales:</i>								
Physical Abuse	10-50	.89	12.9 (4.9)	.90	12.8 (5.1)	.87	13.2 (4.5)	-1.31
Severe Physical Abuse	6-30	.74	6.3 (1.2)	.79	6.3 (1.4)	.58	6.3 (.99)	-.44
SAQ-Parental Total Score	22-110	.97	22.7 (4.4)	.98	22.6 (4.7)	.96	22.7 (3.9)	-.17
<i>Subscales:</i>								
Sexual Harassment	6-30	.92	6.3 (1.5)	.93	6.2 (1.4)	.91	6.3 (1.5)	-.85
Noncontact Sexual Abuse	6-30	.88	6.2 (1.1)	.89	6.2 (1.2)	.88	6.2 (1.1)	-.11
Contact Sexual Abuse	10-50	.96	10.2 (2.1)	.97	10.3 (2.3)	.93	10.2 (1.6)	.32
SAQ-Nonparental Total Score	22-110	.96	31.3 (14.0)	.96	32.3 (14.5)	.97	29.9 (13.0)	3.01
<i>Subscales:</i>								
Sexual Harassment	6-30	.95	10.1 (5.5)	.95	10.5 (5.7)	.95	9.3 (5.0)	<i>3.96</i>
Noncontact Sexual Abuse	6-30	.81	7.0 (2.3)	.80	7.0 (2.4)	.81	7.0 (2.2)	.25
Contact Sexual Abuse	10-50	.96	14.3 (7.6)	.96	14.7 (8.1)	.95	13.6 (6.7)	2.69

^a All students who participated in Part 1

^b *N* = 1,214

^c *N* = 733

^d *N* = 481

^e Alpha internal consistency reliability statistic

^f *t*-test statistic comparing scores for females vs males. Degrees of freedom = 1,213. Bold italicized values are significant at *p* < .001.

The alpha reliability coefficients for the total 16-item PAQ was found to be .89, with the 10-item Physical Abuse subscale alpha value also .89, and the 6-item Severe Physical Abuse subscale alpha found to be .74. Like the PMQ Corrupting subscale, variability of the distribution for the Severe Physical Abuse scale was very low, and the results for this subscale also should be interpreted cautiously.

The alpha reliability value for the total-score Parental version of the SAQ was .97, with values for the Sexual Harassment subscale at .92, Noncontact Sexual Abuse at .88, and Contact Sexual Abuse at .96. Despite these relatively high values, participants' positive endorsements of items comprising these subscales were low and, again, data for these should be interpreted cautiously.

Alpha reliability values for the Nonparental version of the SAQ were similar to those of the Parental version, with the total score value found to be .96, Sexual Harassment at .95, Noncontact Sexual Abuse at .81, and Contact Sexual Abuse at .96.

CMQ Factor Structures

Factor structures were examined through a series of principal components analyses for the total CMQ, the PMQ, the PAQ, the SAQ-Parental version, SAQ-Nonparental version, and for each component subscale. First, items comprising each subscale were entered into separate analyses. In all cases, for both genders, a single component was extracted with an eigenvalue greater than 1.0, indicating that the items comprising each subscale represent a unitary construct defined by the respective subscale.

All PMQ subscale scores were then entered into a single principal components analysis to determine whether there might be evidence that the 12 PMQ subscales represent statistically discernable subforms of maltreatment, versus a smaller subset, or a unitary construct. Similarly, the subscales comprising the PAQ were entered into a separate principal components analysis, as were the subscales comprising the SAQ-

Parental version and those comprising the SAQ-Nonparental version. Given findings from the earlier study with a university student sample (Demaré, 1993), the present results were generally expected to be consistent with describing psychological maltreatment, as assessed by the PMQ, as a unitary construct.

Results, detailed in Tables 15 through 18, reveal that, for both genders, for the PAQ and for each version of the SAQ, a single component was extracted with an eigenvalue greater than 1.0, which accounted for 96% of variance in the PAQ analysis, 90% of the variance in the SAQ-Parental analysis, and 79% of variance in the SAQ-Nonparental analysis. Using a minimum loading value of .45 to indicate meaningful association with the component, all subscales were found to load meaningfully on the respective component extracted. Inspection of the communalities, again using a minimum cut-off value of .45, also revealed that each subscale was well-defined by the respective component.

Principal components analyses results with respect to the PMQ indicated that a two component solution was viable for both genders, and these were rotated obliquely to improve interpretation. For females, the first component was meaningfully defined (*i.e.*, loading values greater than .45) by all PMQ subscales except for Corrupting, Physical Neglect, and Witness to Violence, which loaded on the second component. Physical Terrorism showed a weak tendency also to load on the second component, and Witness to Violence showed a weak tendency also to load on the first component. This pattern also resulted for males, although Physical Terrorism loaded equally and marginally meaningfully on both components (*i.e.*, .47 and .48 for components 1 and 2, respectively). Because examination of the scree plots for these analyses suggested weak evidence for the viability of a third component, these analyses were run again forcing a three component solution. Results (not appearing in the table) indicated that, for both genders, the second component was defined by Corrupting and Physical Neglect,

whereas the third component was defined by Physical Terrorism, Verbal Terrorism, and Witness to Violence. Although the second and third components accounted for relatively small amounts of variance (i.e., 8% and 6%, respectively), the results are theoretically defensible for the third component in the association among PMQ subscales concerned with physical aggression or violence. The reason for the association between Corrupting and Neglect is less readily apparent. Although these forms of maltreatment may share some important characteristics or co-occurrence that is unique from other forms of psychological maltreatment, it is also possible that their association is artifactual, perhaps resulting from their low levels of endorsement in this sample, relative to the other forms of psychological maltreatment.

The final principal components analysis involved the entry of all subscales comprising the PMQ, the PAQ, and both versions of the SAQ into a single analysis. As the results were similar for females and males, they are presented in Table 19 for both genders combined. A five-component solution appeared viable, with the first component defined by PMQ subscales except for Corrupting and Physical Neglect, which defined the fifth component, and Physical Terrorism and Witness to Violence, which loaded on the fourth component along with the PAQ subscales. The specificity of Physical Neglect was low with the fifth component (.50), as it also loaded marginally meaningfully with the first component (.44). The second component was defined exclusively by the Parental SAQ subscales, and the third component was defined exclusively by the Nonparental SAQ subscales. Examination of communalities revealed that the CMQ subscales were generally well-associated with the components.

In summary, principal components analyses results indicate that items comprising each of the subscales represent unitary constructs. In addition, there is evidence that the broad forms of sexual abuse represented by the SAQ-Parental and the SAQ-Nonparental versions are distinct from one another, as well as from psychological

Table 15
Loadings and Communalities for Principal Components of Psychological Maltreatment Questionnaire Subscale Scores

Psychological Maltreatment Subscales	All Participants ^a			Females ^b			Males ^c		
	Component Loadings ^d		Comm unality	Component Loadings ^d		Comm unality	Component Loadings ^d		Comm unality
	1	2		1	2		1	2	
Controlling/Stifling Indep.	<i>.97</i>	<i>-.23</i>	.78	<i>.96</i>	<i>-.22</i>	.76	<i>.95</i>	<i>-.17</i>	.77
Corrupting	<i>-.07</i>	<i>.91</i>	.77	<i>-.11</i>	<i>.90</i>	.72	<i>-.14</i>	<i>.90</i>	.70
Degrading	<i>.89</i>	<i>-.01</i>	.78	<i>.85</i>	<i>.05</i>	.75	<i>.81</i>	<i>.12</i>	.76
Denying Emotional Resp.	<i>.86</i>	<i>-.07</i>	.74	<i>.86</i>	<i>.00</i>	.73	<i>.85</i>	<i>.00</i>	.78
Exploiting (Nonsexual)	<i>.61</i>	<i>.33</i>	.66	<i>.60</i>	<i>.30</i>	.63	<i>.60</i>	<i>.30</i>	.63
Isolating	<i>.77</i>	<i>-.05</i>	.56	<i>.77</i>	<i>-.05</i>	.55	<i>.80</i>	<i>-.13</i>	.56
Physical Neglect	<i>.36</i>	<i>.52</i>	.57	<i>.27</i>	<i>.58</i>	.57	<i>.30</i>	<i>.49</i>	.48
Physical Terrorism	<i>.64</i>	<i>.30</i>	.68	<i>.56</i>	<i>.38</i>	.68	<i>.47</i>	<i>.48</i>	.69
Rejecting	<i>.90</i>	<i>-.01</i>	.81	<i>.87</i>	<i>.03</i>	.78	<i>.87</i>	<i>.04</i>	.79
Unreliable Care	<i>.83</i>	<i>.06</i>	.75	<i>.82</i>	<i>.06</i>	.73	<i>.84</i>	<i>.08</i>	.77
Verbal Terrorism	<i>.84</i>	<i>.08</i>	.78	<i>.79</i>	<i>.13</i>	.75	<i>.71</i>	<i>.24</i>	.72
Witness to Violence	<i>.48</i>	<i>.39</i>	.55	<i>.37</i>	<i>.50</i>	.56	<i>.20</i>	<i>.67</i>	.63
<i>Eigenvalue</i>	<i>7.6</i>	<i>1.0</i>		<i>7.2</i>	<i>1.0</i>		<i>7.2</i>	<i>1.1</i>	
<i>Variance</i>	<i>63%</i>	<i>8%</i>		<i>60%</i>	<i>8%</i>		<i>60%</i>	<i>9%</i>	
<i>Cumulative</i>	<i>63%</i>	<i>71%</i>		<i>60%</i>	<i>68%</i>		<i>60%</i>	<i>69%</i>	

^a N = 1,214

^b N = 733

^c N = 481

^d Principal components extraction with oblique rotation where more than one component was extracted. Loading values greater than .45 are considered meaningful and appear in bold italics.

Table 16
Loadings and Communalities for Principal Components of Physical Abuse Questionnaire Subscale Scores

Physical Abuse Questionnaire Subscales	All Participants ^a		Females ^b		Males ^c	
	Component Loading ^d	Comm unality	Component Loading ^d	Comm unality	Component Loading ^d	Comm unality
Physical Abuse (10 items)	<i>.98</i>	.96	<i>.98</i>	.97	<i>.98</i>	.96
Severe Physical Abuse (6 items)	<i>.98</i>	.96	<i>.98</i>	.97	<i>.98</i>	.96
<i>Eigenvalue</i>	<i>1.9</i>		<i>1.9</i>		<i>1.9</i>	
<i>% of Variance</i>	<i>96.3</i>		<i>96.7</i>		<i>95.5</i>	

^a N = 1,214

^b N = 733

^c N = 481

^d Loading values greater than .45 are considered meaningful and appear in bold italics.

Table 17
Loadings and Communalities for Principal Components of Parental Sexual Abuse Questionnaire Subscale Scores

Parental Sexual Abuse Subscales	All Participants ^a		Females ^b		Males ^c	
	Component Loading ^d	Communality	Component Loading ^d	Communality	Component Loading ^d	Communality
Sexual Harassment -Parental	<i>.95</i>	.90	<i>.96</i>	.92	<i>.94</i>	.88
Noncontact Sexual Abuse -Parental	<i>.94</i>	.88	<i>.94</i>	.88	<i>.95</i>	.89
Contact Sexual Abuse -Parental	<i>.95</i>	.91	<i>.96</i>	.92	<i>.96</i>	.91
<i>Eigenvalue</i>	2.7		2.7		2.7	
<i>% of Variance</i>	89.5		90.4		89.3	

^a N = 1,214

^b N = 733

^c N = 481

^d Loading values greater than .45 are considered meaningful and appear in bold italics.

Table 18
Loadings and Communalities for Principal Components of Nonparental Sexual Abuse Questionnaire Subscale Scores^a

Nonparental Sexual Abuse Subscales	All Participants ^a		Females ^b		Males ^c	
	Component Loading ^d	Communality	Component Loading ^d	Communality	Component Loading ^d	Communality
Sexual Harassment -Parental	<i>.89</i>	.79	<i>.88</i>	.77	<i>.92</i>	.85
Noncontact Sexual Abuse -Parental	<i>.85</i>	.73	<i>.84</i>	.70	<i>.89</i>	.80
Contact Sexual Abuse -Parental	<i>.93</i>	.86	<i>.92</i>	.85	<i>.94</i>	.88
<i>Eigenvalue</i>	2.4		2.3		2.5	
<i>% of Variance</i>	79.4		77.2		84.0	

^a N = 1,214

^b N = 733

^c N = 481

^d Loading values greater than .45 are considered meaningful and appear in bold italics.

Table 19
Loadings and Communalities for Principal Components of All CMQ
Subscale Scores for All Part 1 Participants

Form of Maltreatment	All Participants ^a					
	Component Loadings ^b					Communality
	1	2	3	4	5	
<i>PMQ Subscales:</i>						
Controlling/Stifling Independence	.90	.04	.03	.00	-.13	.76
Corrupting	.02	.05	.02	.16	.83	.80
Degrading	.81	.00	.02	.16	-.05	.78
Denying Emotional Responsiveness	.88	.05	.00	-.07	.06	.78
Exploiting (Nonsexual)	.63	.12	.03	-.01	.35	.72
Isolating	.70	-.04	.03	.04	.06	.55
Physical Neglect	.44	.11	.03	-.03	.50	.63
Physical Terrorism	.37	.02	.05	.65	.00	.84
Rejecting	.84	.04	-.01	.11	.00	.81
Unreliable and Inconsistent Care	.86	.03	.00	-.04	.11	.78
Verbal Terrorism	.69	-.03	.02	.38	-.09	.82
Witness to Violence	.27	.15	-.02	.59	.00	.66
<i>PAQ Subscales:</i>						
Physical Abuse	.25	.00	-.02	.80	-.07	.88
Severe Physical Abuse	-.21	.07	.03	.80	.27	.72
<i>SAQ Parental Subscales:</i>						
Sexual Harassment	.02	.95	.00	-.02	-.03	.90
Noncontact Sexual Abuse	.01	.94	-.02	-.03	.03	.88
Contact Sexual Abuse	-.07	.96	.02	.06	-.06	.91
<i>SAQ Nonparental Subscales:</i>						
Sexual Harassment	.06	.02	.88	-.04	-.01	.80
Noncontact Sexual Abuse	-.03	-.03	.85	.05	.02	.73
Contact Sexual Abuse	-.05	.01	.94	-.04	-.02	.87
<i>Eigenvalue</i>	8.8	2.5	2.2	1.2	1.0	
<i>Variance</i>	44%	12%	11%	6%	5%	
<i>Cumulative Variance</i>	44%	56%	67%	73%	78%	

^a N = 1,214

^b Pattern matrix values from principal components extraction with oblique rotation.

Loading values greater than .45 are considered meaningful and appear in bold italics.

maltreatment and physical abuse. As expected, there was no compelling evidence from this sample that the theoretically determined subforms of psychological maltreatment represent unique constructs. However, there appears to be evidence for the uniqueness of physical abuse as a construct separate from forms of psychological maltreatment with which it is theoretically dissimilar (*i.e.*, those not involving explicit violence). Not surprisingly, physical abuse does not appear to be readily discernable from forms of psychological maltreatment with which it shares theoretical similarity (*i.e.*, those that involve physical violence).

Intercorrelations Among CMQ Scales and Subscales

To begin to examine relationships among CMQ scales and subscales in greater detail, Pearson product-moment correlation coefficients were computed between all pairs of CMQ subscale scores, as well as total scale scores. Results, presented in Table 20 for both genders combined, in Table 21 for females, and in Table 22 for males, reveal moderate to high intercorrelations among all PMQ subscale scores, with values ranging from .25 to .80 for females (average $r = .57$), and from .26 to .78 for males (average $r = .54$). The correlation between the two PAQ subscales was .55 for females and .57 for males, and correlations between the total PAQ and the 12 PMQ subscales ranged from .36 to .82 for females (average $r = .57$) and from .42 to .78 for males (average $r = .55$).

Intercorrelations among SAQ-Parental version subscales were high, ranging from .74 to .83 for females and from .76 to .83 for males. Intercorrelations among SAQ-Nonparental version subscales, were moderate to high, ranging from .57 to .76 for females and from .73 to .84 for males.

However, intercorrelations among SAQ-Parental version subscale scores and PMQ subscales scores were low, ranging from .10 to .36 for females and from .07 to

Table 20: Pearson Product-moment Correlation Coefficients for all Childhood Maltreatment Questionnaire (CMQ) Scales and Subscales

All Participants Combined (N = 1,214)

	PMQ	CON	COR	DEG	DEN	EXP	ISO	NEG	PT	REJ	UNR	VT	WIT	PAQ	PA10	PA-Sev	SAQP	SH-P	SANC-P	SAC-P	SAQNP	SH-NP	SANC-NP	
CON	.82																							
COR	.45	.25																						
DEG	.86	.67	.35																					
DER	.85	.66	.33	.73																				
EXP	.77	.59	.44	.59	.61																			
ISO	.73	.67	.27	.53	.56	.57																		
NEG	.62	.38	.41	.46	.51	.53	.44																	
PT	.78	.53	.42	.67	.57	.59	.50	.50																
REJ	.88	.67	.34	.79	.78	.63	.56	.51	.66															
UNR	.85	.68	.36	.68	.74	.68	.55	.51	.59	.73														
VT	.86	.68	.36	.77	.68	.59	.56	.47	.75	.73	.69													
WIT	.66	.43	.37	.53	.48	.47	.42	.47	.64	.52	.50	.62												
PAQ	.71	.49	.39	.60	.51	.51	.48	.46	.80	.61	.51	.70	.68											
PA-10	.72	.51	.36	.62	.52	.50	.48	.45	.80	.62	.52	.72	.68	.99										
PA-Sev	.41	.25	.37	.32	.26	.35	.30	.35	.50	.35	.28	.36	.43	.68	.56									
SAQ-P	.25	.12	.19	.19	.20	.26	.14	.28	.25	.21	.19	.19	.29	.24	.22	.26								
SH-P	.26	.12	.19	.20	.22	.26	.14	.28	.26	.21	.21	.20	.29	.22	.20	.22	.94							
SANC-P	.25	.12	.21	.19	.20	.27	.16	.28	.24	.21	.18	.19	.27	.24	.22	.24	.89	.75						
SAC-P	.20	.09	.16	.14	.15	.22	.11	.22	.21	.16	.15	.14	.26	.22	.19	.26	.95	.82	.79					
SAQ-NP	.20	.15	.14	.16	.17	.18	.15	.15	.18	.14	.17	.17	.11	.13	.13	.09	.12	.11	.09	.11				
SH-NP	.22	.16	.15	.18	.19	.20	.16	.17	.20	.17	.20	.20	.14	.15	.15	.09	.12	.13	.16	.10	.93			
SANC-NP	.19	.13	.15	.15	.16	.15	.13	.18	.19	.14	.15	.16	.11	.16	.15	.13	.09	.09	.09	.08	.77	.62		
SAC-NP	.14	.11	.12	.11	.12	.14	.12	.11	.13	.09	.11	.11	.07	.09	.08	.07	.10	.09	.07	.11	.95	.79	.72	

PMQ = Psychological Maltreatment Questionnaire total score; CON = Controlling and Stifling Independence; COR = Corrupting; DEG = Degrading; DEN = Denying Emotional Responsiveness; EXP = Exploiting (Nonsexual); ISO = Isolating; NEG = Physical Neglect; PT = Physical Terrorism; REJ = Rejecting; UNR = Unreliable and Inconsistent Care; VT = Verbal Terrorism; WIT = Witness to Violence; PAQ = Physical Abuse Questionnaire total score; PA-10 = Physical Abuse 10-item subscale; PA-Sev = Severe Physical Abuse 6-item subscale; SAQ-P = Sexual Abuse Questionnaire (Parental) total score; SH-P = Sexual Harassment (Parental); SANC-P = Noncontact Sexual Abuse (Parental); SAC-P = Contact Sexual Abuse (Parental); SAQ-NP = Sexual Abuse Questionnaire (Nonparental) total score; SH-NP = Sexual Harassment (Nonparental); SANC-NP = Noncontact Sexual Abuse (Nonparental); SAC-NP = Contact Sexual Abuse (Nonparental).

Table 21: Pearson Product-moment Correlation Coefficients for all Childhood Maltreatment Questionnaire (CMQ) Scales and Subscales

Female Participants (n = 733)

	PMQ	CON	COR	DEG	DEN	EXP	ISO	NEG	PT	REJ	UNR	VT	WIT	PAQ	PA10	PA-Sev	SAQP	SH-P	SANC-P	SAC-P	SAQNP	SH-NP	SANC-NP	
CON	.82																							
COR	.46	.25																						
DEG	.86	.68	.36																					
DER	.86	.66	.36	.74																				
EXP	.77	.58	.42	.58	.62																			
ISO	.74	.68	.31	.53	.56	.58																		
NEG	.63	.40	.42	.47	.52	.55	.48																	
PT	.79	.56	.40	.68	.59	.59	.54	.52																
REJ	.89	.68	.37	.80	.80	.64	.56	.52	.68															
UNR	.85	.68	.37	.68	.76	.67	.56	.53	.60	.73														
VT	.88	.70	.37	.79	.70	.61	.60	.52	.77	.75	.69													
WIT	.68	.46	.35	.54	.50	.49	.46	.50	.66	.54	.53	.66												
PAQ	.71	.52	.36	.61	.53	.51	.50	.44	.82	.63	.52	.71	.68											
PA-10	.73	.54	.33	.64	.55	.50	.28	.44	.82	.65	.54	.73	.68	.99										
PA-Sev	.39	.24	.38	.30	.24	.35	.15	.31	.50	.33	.27	.35	.43	.68	.55									
SAQ-P	.27	.14	.21	.19	.22	.28	.15	.29	.28	.20	.21	.23	.35	.28	.25	.30								
SH-P	.29	.14	.19	.21	.24	.28	.15	.31	.31	.22	.23	.25	.36	.26	.24	.27	.94							
SANC-P	.27	.15	.25	.19	.21	.29	.18	.30	.27	.21	.20	.24	.31	.28	.25	.29	.87	.74						
SAC-P	.21	.10	.18	.14	.16	.23	.11	.22	.23	.15	.16	.18	.30	.24	.21	.30	.95	.83	.77					
SAQ-NP	.22	.18	.11	.18	.19	.21	.20	.15	.20	.15	.17	.18	.12	.17	.17	.13	.11	.11	.10	.10				
SH-NP	.24	.19	.12	.20	.20	.23	.21	.17	.22	.18	.20	.21	.14	.19	.19	.12	.11	.12	.10	.08	.92			
SANC-NP	.20	.17	.09	.16	.16	.18	.17	.18	.22	.16	.15	.15	.10	.18	.17	.17	.08	.08	.09	.07	.74	.57		
SAC-NP	.16	.14	.09	.13	.14	.17	.17	.10	.14	.10	.11	.13	.07	.12	.12	.12	.09	.09	.09	.11	.95	.76	.69	

PMQ = Psychological Maltreatment Questionnaire total score; CON = Controlling and Stifling Independence; COR = Corrupting; DEG = Degrading; DEN = Denying Emotional Responsiveness; EXP = Exploiting (Nonsexual); ISO = Isolating; NEG = Physical Neglect; PT = Physical Terrorism; REJ = Rejecting; UNR = Unreliable and Inconsistent Care; VT = Verbal Terrorism; WIT = Witness to Violence; PAQ = Physical Abuse Questionnaire total scale; PA-10 = Physical Abuse 10-item subscale; PA-Sev = Severe Physical Abuse subscale; SAQ-P = Sexual Abuse Questionnaire (Parental) total score; SH-P = Sexual Harassment (Parental); SANC-P = Noncontact Sexual Abuse (Parental); SAC-P = Contact Sexual Abuse (Parental); SAQ-NP = Sexual Abuse Questionnaire (Nonparental) total score; SH-NP = Sexual Harassment (Nonparental); SANC-NP = Noncontact Sexual Abuse (Nonparental); SAC-NP = Contact Sexual Abuse (Nonparental).

Table 22: Pearson Product-moment Correlation Coefficients for all Childhood Maltreatment Questionnaire (CMQ) Scales and Subscales

Male Participants (n = 481)

	PMQ	CON	COR	DEG	DEN	EXP	ISO	NEG	PT	REJ	UNR	VT	WIT	PAQ	PA10	PA-Sev	SAQP	SH-P	SANC-P	SAC-P	SAQNP	SH-NP	SANC-NP		
CON	.82																								
COR	.47	.26																							
DEG	.86	.66	.34																						
DER	.84	.67	.31	.71																					
EXP	.79	.61	.45	.60	.59																				
ISO	.71	.65	.24	.52	.55	.58																			
NEG	.60	.36	.39	.44	.50	.51	.38																		
PT	.76	.48	.45	.65	.54	.58	.44	.46																	
REJ	.87	.66	.32	.78	.75	.62	.56	.49	.63																
UNR	.85	.69	.35	.69	.72	.69	.53	.48	.59	.72															
VT	.84	.66	.38	.74	.64	.58	.50	.42	.73	.70	.69														
WIT	.62	.39	.42	.51	.44	.45	.34	.44	.61	.48	.46	.55													
PAQ	.69	.45	.42	.59	.48	.51	.46	.47	.78	.58	.49	.70	.68												
PA-10	.69	.46	.40	.59	.48	.50	.45	.45	.78	.57	.49	.69	.67	.99											
PA-SEV	.45	.27	.37	.35	.30	.36	.33	.42	.50	.39	.30	.37	.43	.69	.57										
SAQ-P	.21	.09	.17	.19	.18	.23	.13	.26	.20	.21	.16	.11	.20	.18	.17	.18									
SH-P	.22	.10	.18	.19	.19	.22	.12	.24	.20	.21	.17	.12	.18	.16	.15	.16	.94								
SANC-P	.21	.07	.18	.19	.19	.24	.12	.27	.18	.22	.15	.10	.20	.19	.18	.16	.90	.76							
SAC-P	.18	.07	.14	.15	.14	.21	.12	.26	.18	.17	.12	.08	.19	.17	.16	.19	.95	.83	.83						
SAQ-NP	.17	.09	.24	.13	.14	.16	.06	.18	.16	.12	.17	.16	.11	.08	.09	.02	.12	.13	.07	.13					
SH-NP	.20	.12	.25	.16	.16	.19	.07	.19	.18	.15	.21	.20	.13	.10	.18	.04	.15	.17	.10	.14	.95				
SANC-NP	.16	.08	.22	.14	.13	.11	.07	.18	.15	.11	.14	.16	.11	.11	.11	.05	.10	.10	.08	.11	.83	.73			
SAC-NP	.12	.05	.21	.08	.09	.12	.04	.13	.12	.07	.13	.10	.07	.03	.04	-.01	.09	.09	.04	.11	.96	.84	.77		

PMQ = Psychological Maltreatment Questionnaire total score; CON = Controlling and Stifling Independence; COR = Corrupting 6-item scale; DEG = Degrading; DEN = Denying Emotional Responsiveness; EXP = Exploiting (Nonsexual); ISO = Isolating; NEG = Physical Neglect; PT = Physical Terrorism; REJ = Rejecting; UNR = Unreliable and Inconsistent Care; VT = Verbal Terrorism; WIT = Witness to Violence; PAQ = Physical Abuse Questionnaire total score; PA-10 = Physical Abuse 10-item subscale; PA-Sev = Severe Physical Abuse subscale; SAQP = Sexual Abuse Questionnaire (Parental) total score; SH-P = Sexual Harassment (Parental); SANC-P = Noncontact Sexual Abuse (Parental); SAC-P = Contact Sexual Abuse (Parental); SAQ-NP = Sexual Abuse Questionnaire (Nonparental) total score; SH-NP = Sexual Harassment (Nonparental); SANC-NP = Noncontact Sexual Abuse (Nonparental); SAC-NP = Contact Sexual Abuse (Nonparental).

.27 for males, as were intercorrelations among SAQ-Parental subscale scores and the PAQ, with values ranging from .24 to .28 for females and from .16 to .19 for males. Similarly, intercorrelations among SAQ-Nonparental version subscale scores and PMQ subscales scores were low, ranging from .07 to .23 for females and from .04 to .25 for males, as were intercorrelations among SAQ-Nonparental subscale scores and the PAQ, with values ranging from .12 to .19 for females and from .03 to .11 for males.

Descriptive Data for the Measures of Symptom Status and Social Desirability

Mean scores and standard deviations, as well as Cronbach alpha internal consistency reliability coefficients, computed for each of the measures of symptom status, as well as for the 11-item short version of the Marlowe-Crowne Social Desirability Scale, are presented in Table 23, along with *t*-test results for the comparisons of females' and males' mean scores on these measures.

Trauma Symptom Inventory (TSI)

Alpha reliability coefficients for the TSI clinical scales were found to range from .71 to .90 for females (average $\alpha = .83$) and from .69 to .90 for males (average $\alpha = .82$). Intercorrelations between scales (not appearing in the table) ranged from .35 to .76, with a mean *r* of .55. These statistics are quite similar to those reported by Briere (1995) for the standardization sample and for a university student sample, as well as to those reported by Runtz & Roche (1999) for a large sample of female university students.

Unfortunately, normative data for mean TSI values for a university student sample are not reported in the TSI manual and there is a paucity of published studies reporting such data. As such, results from the present study may prove useful as a source of normative data. Predictably, mean TSI scale values were generally found to be higher than those reported in the TSI manual for a general population sample, given that younger individuals and students in general tend to score higher on measures of

symptomatology than do members of the general public (*e.g.*, Cochran & Hale, 1985). In fact the mean values found in the present study are more similar to those reported in the TSI manual for U.S. Navy recruits (who are similar in age to students in the present sample) and to those reported for a clinical sample (who may be similar to those in the present sample with respect to factors such as immediate life stressors). Mean TSI values from the present study also are comparable to those presented by Runtz & Roche (1999) for their sample of female university students.

T-test comparison of TSI mean scores for females and males, again, using an alpha level of .001, indicate that females reported higher symptoms of anxious arousal (effect size = .25), depression (effect size = .31), intrusive experiences (effect size = .18), and defensive avoidance (effect size = .20). Although the effect sizes for these differences are small, the findings are generally in concert with those reported elsewhere, both for a university student sample (Briere & Smiljanich, 1994) and for a clinical sample (Briere *et al.*, 1995), indicating that females tend to score higher than males on TSI scales centering around dysphoric and posttraumatic symptoms. However, as discussed elsewhere (*e.g.*, Briere, 1992; Briere *et al.*, 1995), sex differences in the reporting of psychological symptoms should be interpreted cautiously. For example, it does not necessarily follow that greater endorsement of symptoms of dysphoria or posttraumatic stress by females means that women experience greater psychological distress in these domains for equivalent traumata. Alternatively, differences observed might result from sex-role specific differences in the expression of distress. Whatever their origins, these differences appear to provide some support for the provision of sex-specific norms in the standardization of the TSI and for the reporting of gender-specific results for univariate and multivariate analyses in the present study.

Brief Symptom Inventory (BSI)

Internal consistency reliability coefficients for the BSI scales ranged from .67 to .86 for females (average $\alpha = .77$) and from .66 to .84 for males (average $\alpha = .77$), values that are consistent with those reported by Derogatis & Melisaratos (1983) for a sample of 1,002 psychiatric outpatients, and by Derogatis (1992) for a sample of 719 outpatients.

In addition, the mean score values for the BSI are similar to those reported by Cochran & Hale (1985) for their sample of 204 college females (*e.g.*, General Severity Index (GSI) *mean* = .71, *sd* = .42) and males (GSI *mean* = .84, *sd* = .55). Unfortunately, Derogatis (1982, 1992) did not present BSI normative data for college students. However, when compared with his adult nonpatient mean values for females (*e.g.*, GSI *mean* = .25, *sd* = .24) and males (GSI *mean* = .36, *sd* = .35), 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 the present study fall somewhere between levels reported by so-called normal adults and psychiatric out-patients, as reported by Derogatis (1992).

In the BSI manual, Derogatis (1992) did not report statistical data comparing mean scores for females and males for any of his four normative samples, nor did Cochran & Hale (1985) for their student sample. In the present sample, *t*-test comparison of BSI mean scores for females and males, using an alpha level of .001, revealed no gender differences for the General Severity Index, although females scored higher on subscales tapping anxiety (effect size = .18), interpersonal sensitivity (effect size = .20), and somatization (effect size = .23). Gender differences on these subscales are congruent with differences found with the TSI, as discussed above.

Table 23
Statistics for the Measures of Symptom Status and Social Desirability Used in Part 1^a

Measure	Potential Range	All Participants ^b			Females ^c			Males ^d			<i>t</i> -test ^f
		α^*	Mean	(SD)	α^*	Mean	(SD)	α^*	Mean	(SD)	
Trauma Symptom Inventory:											
Anxious Arousal	0-24	.80	10.1	(4.7)	.80	10.6	(4.8)	.78	9.4	(4.7)	<i>4.25</i>
Depression	0-24	.90	8.1	(5.9)	.90	8.9	(5.9)	.90	7.0	(5.7)	<i>5.34</i>
Anger/Irritability	0-27	.89	11.8	(6.6)	.90	12.2	(6.7)	.88	11.3	(6.4)	2.27
Intrusive Experiences	0-24	.87	6.7	(5.4)	.87	7.1	(5.5)	.86	6.2	(5.1)	<i>3.11</i>
Defensive Avoidance	0-24	.88	9.0	(6.4)	.88	9.5	(6.4)	.88	8.3	(6.3)	<i>3.39</i>
Dissociation	0-27	.80	8.4	(5.0)	.81	8.5	(5.0)	.80	8.2	(5.0)	1.04
Sexual Concerns	0-27	.81	6.5	(5.5)	.82	6.1	(5.5)	.80	7.0	(5.4)	-2.79
Dysfunctional Sexual Behavior	0-27	.81	4.6	(4.8)	.82	4.4	(4.8)	.80	5.0	(4.9)	-2.14
Impaired Self-Reference	0-27	.83	10.2	(5.6)	.83	10.4	(5.6)	.83	9.8	(5.7)	1.83
Tension Reduction Behavior	0-24	.70	4.9	(3.8)	.71	4.9	(3.8)	.69	4.8	(3.8)	.48
Atypical Response (validity scale)	0-30	.60	2.2	(2.5)	.56	2.1	(2.4)	.64	2.2	(2.7)	-.94
Response Level (validity scale)	0-10	.81	.95	(1.3)	.81	.81	(1.1)	.80	1.2	(1.4)	<i>-4.57</i>
Inconsistent Response (validity scale)	0-30	.31	4.4	(2.4)	.30	4.4	(2.3)	.34	4.5	(2.5)	-.76
BRIEF SYMPTOM INVENTORY											
General Severity Index	0-4	.95	.76	(.54)	.96	.79	(.55)	.95	.73	(.53)	1.97
Anxiety	0-4	.78	.76	(.66)	.79	.81	(.69)	.75	.69	(.61)	<i>3.31</i>
Depression	0-4	.85	.85	(.81)	.86	.87	(.81)	.84	.82	(.80)	1.13
Hostility	0-4	.79	.75	(.75)	.81	.73	(.74)	.80	.79	(.76)	-1.29
Interpersonal Sensitivity	0-4	.79	1.0	(.87)	.78	1.1	(.88)	.83	.94	(.84)	<i>3.46</i>
Obsessive-Compulsive	0-4	.81	1.2	(.79)	.80	1.2	(.78)	.80	1.2	(.81)	1.07
Paranoid Ideation	0-4	.76	.85	(.75)	.76	.84	(.76)	.74	.86	(.73)	-.33
Phobic Anxiety	0-4	.68	.30	(.47)	.67	.33	(.48)	.71	.26	(.46)	2.32
Psychoticism	0-4	.68	.61	(.65)	.70	.60	(.65)	.66	.63	(.66)	-.92
Somatization	0-4	.77	.53	(.56)	.75	.58	(.58)	.79	.45	(.54)	<i>4.00</i>
BECK Depression Inventory	0-63	.87	8.2	(7.0)	.88	8.8	(7.3)	.85	7.4	(6.5)	<i>3.52</i>
Marlow-Crowne Social Desirability Scale (11-item short form)	0-11	.67	6.0	(2.6)	.70	5.8	(2.6)	.64	6.2	(2.5)	-2.13

^a All Part 1 participants

^b *N* = 1,214

^c *n* = 733

^d *n* = 481

^e Alpha internal consistency reliability coefficient

^f *t* statistic comparing scores for females vs males. Degrees of freedom = 1,213. Bold italicized values are significant at *p* < .001.

Beck Depression Inventory (BDI)

The mean scores, standard deviations, and alpha reliability values obtained for the BDI are similar to those reported by Beck and his associates (*e.g.*, Beck *et al.*, 1988) and, specifically, are similar to those presented for university students (*e.g.*, Endler, Cox, Parker, & Bagby, 1992). Significant gender differences were observed in the present study, with females scoring slightly higher than males (effect size = .20).

Marlowe-Crowne Social Desirability Scale-11-item version (MCSDS-11)

Mean values obtained for the present sample for the MCSDS-11 are similar to those reported by Reynolds (1982) for his sample of 608 undergraduate students. Although the present values were slightly higher, they differed from that of Reynolds by less than one-half of one standard deviation. No significant gender differences were obtained in the present analysis, consistent with findings reported by Reynolds and by others (*e.g.*, Ramanaiah, Schill, & Leung, 1977; Strahan & Gerbasi, 1972).

Relationships Among Maltreatment Variables and Measures of Symptom Status

Relationships among the CMQ measures and the measures of symptom status were examined initially through a series of Pearson product-moment correlation analyses. Results are presented in Table 24 for both genders combined, in Table 25 for females, and in Table 26 for males. Low to moderate correlation coefficients were observed among PMQ subscales and TSI clinical scales, ranging from .12 to .42 for females and from .12 and .47 for males, with correlations among the total score PMQ and the TSI clinical scales ranging from .21 to .43 for females and from .31 to .47 for males. Similar values were obtained for correlations among the PMQ subscales and BSI subscales and the BDI. Correlations between the total PMQ and the BSI General Severity Index were moderate at .47 for females and .56 for males, as were correlations between the total PMQ and the BDI, at .40 for females and .46 for males.

Relationships among the total PAQ and the TSI clinical scales ranged from .13 to .28 for females and from .18 to .29 for males, whereas correlations among the PAQ and the BSI subscales ranged from .13 to .23 for females and .22 to .29 for males. The PAQ correlated .24 for females and .32 for males with the BSI General Severity Index, and .24 with the BDI for both genders.

Correlations among the SAQ-Parental version subscales and the TSI clinical scales were extremely low, ranging from .01 to .13 for females and from .03 to .16 for males. Similarly, correlations among the SAQ-Parental version subscales and the BSI subscales ranged from -.01 to .15 for females and from .01 to .16 for males. The SAQ-Parental version subscales correlated between .08 and .11 for females and between .09 and .12 for males with the BSI General Severity Index, and between .07 and .13 for females and between .11 and .13 for males. These low values may be due in large part to very low level of endorsement of Parental SAQ items and the resulting restricted range of variability of this subscale. As a result, the caution is repeated regarding interpretation of findings with respect to the Parental SAQ.

Correlations among the SAQ-Nonparental version subscales and the TSI clinical scales were stronger, ranging from .14 to .29 for females and from .10 to .34 for males, whereas correlations among the SAQ-Nonparental version subscales and the BSI subscales ranged from .08 to .22 for females and from .04 to .18 for males. The SAQ-Nonparental version subscales correlated between .16 and .22 for females and between .12 and .16 for males with the BSI General Severity Index, and between .15 and .20 for females and between .05 and .10 for males.

Relationships Among Primary Variables and Demographic Variables

In order to determine whether demographic variables were related to participants' scores on maltreatment subscales and their scores on measures of symptom status, Pearson product-moment correlation coefficients were computed for each of five

Table 24: Pearson Product-moment Correlation Coefficients for all Childhood Maltreatment Questionnaire (CMO) Scales with the Measures of Symptom Status — All Participants Combined (N = 1,214)

	PMQ	CON	COR	DEG	DEN	EXP	ISO	NEG	FT	REJ	UNR	VT	WIT	PAQ	PA10	PA-Sev	S4QP	SHP	SANCP	SACP	SAQNP	SHNP	SANCNP	SACNP	SACNP
TSI-AA	.36	.34	.17	.31	.28	.26	.28	.20	.26	.27	.33	.33	.19	.19	.19	.09	.06	.07	.06	.05	.21	.22	.16	.18	
TSI-D	.41	.38	.13	.39	.36	.24	.31	.23	.27	.38	.37	.35	.22	.22	.22	.14	.08	.10	.07	.06	.16	.17	.15	.13	
TSI-AI	.37	.35	.15	.33	.30	.24	.22	.19	.28	.30	.33	.38	.19	.19	.21	.09	.04	.05	.04	.02	.19	.19	.17	.15	
TSI-IE	.38	.30	.20	.33	.30	.28	.27	.31	.30	.30	.35	.34	.26	.26	.25	.19	.12	.12	.12	.10	.26	.27	.25	.21	
TSI-DA	.38	.33	.18	.33	.33	.27	.28	.26	.26	.32	.37	.32	.23	.23	.23	.15	.11	.11	.11	.09	.24	.24	.21	.20	
TSI-DIS	.40	.36	.18	.34	.34	.29	.31	.22	.29	.31	.38	.35	.26	.24	.24	.17	.10	.11	.09	.08	.17	.19	.15	.13	
TSI-SC	.35	.32	.21	.26	.29	.30	.28	.23	.23	.25	.32	.31	.20	.20	.19	.13	.10	.12	.10	.06	.20	.21	.20	.17	
TSI-DSB	.25	.21	.18	.19	.19	.21	.19	.18	.21	.17	.23	.26	.15	.18	.19	.12	.08	.09	.08	.05	.31	.30	.28	.27	
TSI-ISR	.40	.39	.17	.34	.36	.28	.30	.20	.24	.33	.40	.34	.20	.19	.20	.11	.08	.09	.07	.06	.17	.17	.15	.14	
TSI-TRB	.38	.34	.22	.32	.31	.28	.26	.21	.28	.31	.36	.37	.23	.24	.24	.14	.09	.10	.09	.06	.28	.27	.25	.24	
TSI-AR	.36	.29	.25	.27	.26	.33	.30	.26	.30	.26	.32	.31	.25	.29	.27	.26	.16	.15	.12	.16	.13	.14	.12	.10	
TSI-RL	-.22	-.26	-.06	-.19	-.22	-.11	-.16	-.06	-.13	-.18	-.22	-.22	-.10	-.10	-.11	.03	.00	.00	.00	.00	-.09	-.11	-.05	-.06	
TSI-IR	.19	.15	.10	.14	.15	.18	.14	.16	.11	.17	.17	.16	.12	.12	.11	.13	.10	.10	.07	.09	.07	.07	.07	.06	
BSI-GSI	.50	.44	.23	.42	.41	.38	.32	.30	.37	.41	.45	.42	.27	.27	.27	.16	.11	.11	.10	.09	.19	.21	.17	.15	
BSI-ANX	.40	.35	.18	.34	.34	.31	.31	.26	.30	.33	.37	.32	.23	.21	.21	.13	.11	.11	.10	.10	.19	.20	.16	.16	
BSI-DEP	.42	.39	.16	.37	.37	.29	.30	.22	.30	.37	.37	.35	.24	.24	.24	.14	.08	.08	.07	.06	.12	.13	.12	.10	
BSI-HOST	.38	.32	.22	.34	.34	.28	.22	.21	.32	.31	.33	.38	.21	.23	.24	.09	.05	.05	.05	.04	.18	.18	.19	.15	
BSI-ISEN	.38	.37	.15	.33	.33	.28	.29	.20	.24	.33	.34	.31	.17	.17	.17	.10	.09	.07	.09	.07	.12	.14	.12	.08	
BSI-OC	.40	.37	.13	.32	.32	.32	.34	.23	.28	.32	.39	.32	.23	.20	.21	.10	.05	.07	.05	.03	.12	.14	.10	.09	
BSI-PAR	.44	.41	.21	.38	.38	.35	.33	.26	.31	.35	.41	.37	.21	.22	.23	.14	.07	.08	.08	.08	.17	.18	.15	.13	
BSI-PHOB	.33	.26	.21	.27	.27	.30	.29	.25	.26	.27	.28	.25	.21	.20	.19	.19	.12	.10	.14	.11	.10	.12	.10	.07	
BSI-PSY	.44	.38	.24	.38	.38	.33	.32	.24	.32	.36	.39	.36	.24	.26	.26	.17	.11	.11	.11	.09	.13	.14	.13	.14	
BSI-SOM	.32	.26	.19	.27	.27	.24	.23	.26	.25	.27	.30	.28	.17	.16	.15	.11	.10	.09	.09	.10	.18	.19	.15	.12	
BDI	.42	.38	.17	.37	.37	.27	.30	.24	.30	.36	.39	.35	.23	.23	.23	.16	.11	.11	.12	.09	.16	.18	.13	.12	

PMQ = Psychological Maltreatment Questionnaire total score; CON = Controlling and Sifting Independence; COR = Corrupting; DEG = Degrading; DEN = Denying Emotional Responsiveness; EXP = Exploiting (Nonsexual); ISO = Isolating; NEG = Physical Neglect; FT = Physical Terrorist; REJ = Rejecting; UNR = Unreliable and Inconsistent Care; VT = Verbal Terrorist; WIT = Witness to Violence; PAQ = Physical Abuse Questionnaire (total score); PA10 = Physical Abuse 10-item subscale; PA-Sev = Severe Physical Abuse subscale; S4QP = Sexual Abuse Questionnaire (Parental) total score; SH-P = Sexual Harassment (Parental); SANC-P = Noncontact Sexual Abuse (Parental); SAC-P = Contact Sexual Abuse (Parental); SAQNP = Sexual Abuse Questionnaire (Nonparental) total score; SH-NP = Sexual Harassment (Nonparental); SANC-NP = Noncontact Sexual Abuse (Nonparental); SAC-NP = Contact Sexual Abuse (Nonparental)

Trauma Symptom Inventory (TSI) Clinical Scales; TSI-AA = Anxious Arousal; TSI-D = Depression; TSI-AI = Anger/Irritability; TSI-IE = Intrusive Experiences; TSI-DA = Defensive Avoidance; TSI-DIS = Dissociation; TSI-SC = Sexual Concerns; TSI-DSB = Dysfunctional Sexual Behavior; TSI-ISR = Impaired Self-Reference; TSI-TRB = Trauma Symptom Inventory (TSI) Validity Scales; TSI-AR = Atypical Response; TSI-RL = Response Level; TSI-IR = Inconsistent Response.

Brief Symptom Inventory (BSI) scales; BSI-GSI = General Severity Index; BSI-ANX = Anxiety; BSI-DEP = Depression; BSI-HOST = Hostility; BSI-ISEN = Interpersonal Sensitivity; BSI-OC = Obsessive-Compulsive; BSI-PAR = Paranoid Ideation; BSI-PHOB = Phobia; BSI-PSY = Psychoticism; BSI-SOM = Somatization.

BDI = Beck Depression Inventory.

Table 25: Pearson Product-moment Correlation Coefficients for all Childhood Maltreatment Questionnaire (CMO) Scales with the Measures of Symptom Status — Female Participants (n = 733)

	PMQ	CON	COR	DEG	DEN	EXP	ISO	NEG	PT	REJ	UNR	VT	WIT	PAQ	PA10	PA-SEV	SAQP	SHP	SANCP	SACP	SAQNP	SHNP	SANCP	SACNP	SACNP
TSI-AA	.35	.31	.20	.32	.26	.26	.28	.21	.27	.27	.31	.34	.20	.20	.21	.09	.05	.06	.06	.03	.20	.20	.16	.18	
TSI-D	.39	.35	.16	.39	.33	.23	.30	.21	.26	.37	.36	.36	.20	.21	.22	.10	.05	.07	.06	.01	.18	.19	.18	.14	
TSI-AI	.36	.35	.15	.34	.27	.23	.25	.18	.28	.32	.33	.39	.19	.19	.20	.06	.04	.07	.05	.00	.20	.19	.18	.16	
TSI-IE	.41	.32	.23	.35	.31	.30	.30	.34	.33	.34	.38	.36	.27	.27	.27	.18	.11	.11	.13	.08	.25	.25	.26	.20	
TSI-DA	.43	.35	.23	.26	.34	.31	.32	.30	.30	.37	.42	.37	.25	.28	.28	.17	.09	.09	.11	.07	.25	.24	.25	.21	
TSI-DIS	.40	.36	.24	.34	.31	.39	.32	.21	.32	.32	.37	.39	.37	.26	.26	.16	.07	.08	.07	.04	.19	.20	.17	.15	
TSI-SC	.33	.31	.19	.26	.26	.28	.28	.20	.24	.24	.31	.32	.19	.18	.18	.13	.07	.11	.07	.03	.26	.26	.24	.21	
TSI-DSB	.21	.19	.13	.16	.17	.17	.18	.13	.19	.14	.21	.23	.12	.13	.13	.08	.03	.05	.04	-.01	.31	.29	.28	.28	
TSI-ISR	.36	.35	.18	.32	.30	.24	.27	.15	.23	.31	.36	.32	.18	.18	.18	.09	.03	.04	.03	.01	.17	.17	.15	.15	
TSI-TRB	.35	.32	.21	.30	.26	.25	.27	.19	.28	.30	.34	.36	.21	.21	.21	.11	.05	.08	.06	.01	.28	.27	.26	.24	
TSI-AR	.34	.29	.23	.26	.23	.29	.29	.22	.30	.25	.31	.30	.24	.26	.24	.20	.25	.13	.11	.16	.15	.16	.13	.12	
TSI-RL	-.21	-.22	-.13	-.19	-.20	-.09	-.15	-.06	-.14	-.19	-.19	-.21	-.12	-.12	-.13	-.05	.00	.00	-.02	.01	-.07	-.08	-.03	-.05	
TSI-IR	.18	.14	.10	.16	.14	.18	.12	.12	.13	.16	.17	.16	.10	.10	.11	.07	.09	.09	.08	.08	.09	.20	.18	.15	
BSI-GSI	.47	.42	.22	.41	.37	.35	.36	.27	.34	.41	.43	.41	.25	.24	.25	.12	.10	.11	.11	.08	.21	.22	.20	.16	
BSI-ANX	.36	.32	.17	.31	.29	.29	.29	.25	.27	.31	.34	.30	.20	.18	.19	.08	.11	.10	.12	.09	.22	.22	.20	.18	
BSI-DEP	.41	.37	.16	.38	.34	.28	.29	.21	.30	.37	.38	.35	.23	.23	.24	.12	.06	.07	.07	.04	.15	.16	.15	.11	
BSI-HOST	.38	.32	.17	.35	.28	.26	.25	.19	.32	.35	.34	.38	.21	.22	.24	.07	.08	.09	.09	.05	.20	.20	.19	.15	
BSI-ISEN	.33	.32	.13	.30	.28	.25	.26	.17	.21	.29	.30	.29	.15	.13	.13	.06	.07	.08	.07	.06	.14	.15	.15	.10	
BSI-OC	.37	.34	.14	.31	.29	.29	.32	.21	.27	.30	.34	.32	.23	.19	.21	.06	.02	.04	.03	-.01	.13	.15	.11	.10	
BSI-PAR	.44	.40	.24	.39	.35	.34	.34	.24	.31	.37	.42	.39	.22	.22	.22	.12	.09	.08	.10	.08	.16	.18	.14	.13	
BSI-PHOB	.30	.26	.18	.23	.21	.28	.28	.23	.22	.25	.27	.24	.17	.16	.15	.12	.12	.10	.15	.10	.11	.12	.11	.08	
BSI-PSY	.41	.36	.20	.37	.36	.29	.30	.21	.30	.36	.39	.35	.22	.24	.24	.14	.08	.08	.09	.06	.15	.16	.16	.12	
BSI-SOM	.30	.26	.20	.26	.24	.22	.22	.23	.22	.27	.28	.27	.16	.13	.14	.07	.12	.10	.11	.12	.19	.20	.18	.15	
BDI	.40	.36	.20	.36	.35	.26	.28	.23	.31	.36	.39	.35	.21	.24	.24	.15	.11	.11	.13	.07	.19	.20	.18	.15	

PMQ = Psychological Maltreatment Questionnaire total score; CON = Controlling and Stifling Independence; COR = Corrupting; DEG = Degrading; DEN = Denying Emotional Responsiveness; EXP = Exploiting (Nonsexual); ISO = Isolating; NEG = Physical Neglect; PT = Physical Terrorism; REJ = Rejecting; UNR = Unreliable and Inconsistent Care; VT = Verbal Terrorism; WIT = Witness to Violence; PAQ = Physical Abuse Questionnaire (total score); PA-10 = Physical Abuse 10-item subscale; PA-SEV = Severe Physical Abuse subscale; SAQP = Sexual Abuse Questionnaire (Parental) total score; SH-P = Sexual Harassment (Parental); SANCP = Noncontact Sexual Abuse (Parental); SAC-P = Contact Sexual Abuse (Parental); SAQNP = Sexual Abuse Questionnaire (Nonparental) total score; SH-NP = Sexual Harassment (Nonparental); SANCP-NP = Noncontact Sexual Abuse (Nonparental); SAC-NP = Contact Sexual Abuse (Nonparental)

Trauma Symptom Inventory (TSI) Clinical Scales; TSI-AA = Anxious Arousal; TSI-D = Depression; TSI-AI = Angry/Irritability; TSI-IE = Intrusive Experiences; TSI-DA = Defensive Avoidance; TSI-DIS = Dissociation; TSI-SC = Sexual Concerns; TSI-DSB = Dysfunctional Sexual Behavior; TSI-ISR = Impaired Self-Reference; TSI-TRB = Tension Reduction Behavior

Trauma Symptom Inventory (TSI) Validity Scales; TSI-AR = Atypical Response; TSI-RL = Response Level; TSI-IR = Inconsistent Response

Brief Symptom Inventory (BSI) scales; BSI-GSI = General Severity Index; BSI-ANX = Anxiety; BSI-DEP = Depression; BSI-HOST = Hostility; BSI-ISEN = Interpersonal Sensitivity; BSI-OC = Obsessive-Compulsive; BSI-PAR = Paranoid Ideation; BSI-PHOB = Phobia; BSI-PSY = Psychoticism; BSI-SOM = Somatization

BDI = Beck Depression Inventory.

Table 26: Pearson Product-moment Correlation Coefficients for all Childhood Maltreatment Questionnaire (CMQ) Scales with the Measures of Symptom Status — Male Participants (n = 481)

	PMQ	CON	COR	DEG	DEN	EXP	ISO	NEG	PT	REJ	UNR	VT	WIT	PAQ	PA10	PA-Sev	SAQP	SHP	SANCP	SACP	SAQNP	SHNP	SANCNP	SACNP
TSI-AA	.40	.38	.18	.31	.32	.30	.28	.21	.26	.27	.27	.35	.19	.19	.19	.12	.09	.10	.06	.09	.19	.22	.15	.16
TSI-D	.47	.43	.15	.41	.42	.32	.34	.27	.32	.41	.40	.38	.26	.27	.26	.21	.14	.14	.11	.13	.10	.10	.11	.08
TSI-AI	.38	.35	.18	.33	.35	.28	.18	.22	.28	.26	.33	.38	.21	.24	.24	.15	.04	.04	.03	.06	.16	.17	.14	.13
TSI-IE	.35	.28	.22	.30	.30	.30	.21	.29	.27	.24	.29	.32	.24	.25	.23	.22	.14	.15	.10	.13	.26	.27	.24	.21
TSI-DA	.33	.30	.17	.28	.30	.25	.22	.21	.20	.24	.29	.26	.21	.18	.17	.14	.14	.15	.11	.13	.20	.22	.16	.16
TSI-DIS	.41	.35	.14	.35	.39	.32	.28	.23	.26	.31	.40	.30	.25	.21	.20	.18	.15	.14	.12	.16	.13	.16	.12	.10
TSI-SC	.37	.34	.20	.27	.36	.31	.29	.26	.21	.26	.33	.29	.22	.20	.20	.13	.13	.13	.14	.11	.14	.15	.13	.11
TSI-DSB	.31	.25	.12	.23	.23	.25	.20	.25	.24	.20	.27	.31	.21	.26	.26	.17	.15	.14	.14	.15	.33	.34	.28	.28
TSI-ISR	.47	.46	.18	.37	.45	.35	.35	.26	.26	.36	.47	.39	.22	.23	.23	.14	.15	.15	.12	.15	.15	.15	.15	.12
TSI-TRB	.43	.38	.25	.36	.38	.33	.25	.25	.28	.33	.38	.39	.26	.29	.29	.19	.14	.13	.14	.14	.27	.27	.24	.24
TSI-AR	.39	.28	.26	.29	.30	.38	.31	.32	.31	.28	.34	.34	.26	.34	.31	.36	.17	.17	.13	.17	.12	.14	.10	.09
TSI-RL	-.26	-.33	-.03	-.20	-.25	-.17	-.18	-.09	-.14	-.17	-.27	-.26	-.09	-.10	-.11	-.02	.00	-.01	.01	-.01	-.09	-.12	-.06	-.06
TSI-IR	.20	.16	.10	.10	.16	.18	.17	.21	.08	.19	.18	.16	.15	.14	.11	.24	.10	.11	.07	.09	.05	.05	.03	.03
BSI-GSI	.56	.48	.29	.46	.50	.45	.40	.36	.41	.43	.49	.45	.31	.32	.32	.24	.12	.12	.09	.12	.15	.16	.13	.12
BSI-ANX	.48	.39	.26	.40	.33	.39	.37	.29	.37	.36	.43	.38	.30	.28	.28	.23	.12	.12	.09	.12	.13	.15	.12	.09
BSI-DEP	.45	.41	.18	.37	.40	.32	.33	.25	.32	.37	.37	.36	.26	.25	.25	.16	.09	.10	.06	.09	.07	.07	.08	.06
BSI-HOST	.38	.32	.28	.32	.34	.29	.17	.25	.32	.26	.31	.38	.22	.24	.24	.13	-.01	-.02	-.02	.01	.18	.16	.18	.16
BSI-ISEN	.48	.46	.23	.40	.42	.38	.36	.27	.31	.41	.41	.36	.21	.25	.25	.18	.12	.11	.12	.11	.07	.08	.07	.04
BSI-OC	.47	.42	.14	.35	.44	.38	.38	.28	.30	.37	.37	.34	.23	.23	.23	.16	.10	.11	.08	.09	.09	.11	.09	.06
BSI-PAR	.43	.41	.18	.37	.39	.37	.32	.30	.30	.31	.41	.34	.19	.25	.25	.18	.08	.09	.06	.08	.18	.19	.15	.15
BSI-PHOB	.39	.27	.29	.35	.30	.36	.31	.31	.34	.31	.29	.27	.29	.29	.21	.31	.11	.09	.12	.12	.08	.10	.08	.04
BSI-PSY	.48	.41	.29	.40	.42	.38	.36	.29	.35	.37	.40	.38	.27	.28	.27	.22	.16	.16	.14	.15	.11	.12	.09	.08
BSI-SOM	.36	.27	.23	.30	.30	.31	.25	.32	.31	.28	.33	.30	.20	.22	.21	.20	.07	.08	.05	.08	.14	.15	.10	.11
BDI	.46	.41	.19	.38	.43	.33	.31	.28	.29	.38	.41	.36	.26	.24	.23	.18	.13	.13	.11	.12	.07	.10	.05	.05

PMQ = Psychological Maltreatment Questionnaire total score; CON = Controlling and Stifling Independence; COR = Corrupting; DEG = Degrading; DEN = Denying Emotional Responsiveness; EXP = Exploiting (Nonsexual); ISO = Isolating; NEG = Physical Neglect; PT = Physical Terrorism; REJ = Rejecting; UNR = Unreliable and Inconsistent Care; VT = Verbal Terrorism; WIT = Witness to Violence; PAQ = Physical Abuse Questionnaire total score; PA-10 = Physical Abuse 10-item subscale; PA-Sev = Severe Physical Abuse subscale; SAQP = Sexual Abuse Questionnaire (Parental) total score; SH-P = Sexual Harassment (Parental); SANC-P = Noncontact Sexual Abuse (Parental); SAC-P = Contact Sexual Abuse (Parental); SAQNP = Sexual Abuse Questionnaire (Nonparental) total score; SH-NP = Sexual Harassment (Nonparental); SANC-NP = Noncontact Sexual Abuse (Nonparental); SAC-NP = Contact Sexual Abuse (Nonparental)

Trauma Symptom Inventory (TSI) Clinical Scales: TSI-AA = Anxious Arousal; TSI-D = Depression; TSI-AI = Anger Irritability; TSI-IE = Intrusive Experiences; TSI-DA = Defensive Avoidance; TSI-DIS = Dissociation; TSI-SC = Sexual Concerns; TSI-DSB = Dysfunctional Sexual Behavior; TSI-ISR = Impaired Self-Reference; TSI-TRB = Tension Reduction Behavior.
Trauma Symptom Inventory (TSI) Validity Scales: TSI-RL = Atypical Response; TSI-RL = Response Level; TSI-IR = Inconsistent Response.

Brief Symptom Inventory (BSI) scales: BSI-GSI = General Severity Index; BSI-ANX = Anxiety; BSI-DEP = Depression; BSI-HOST = Hostility; BSI-ISEN = Interpersonal Sensitivity; BSI-OC = Obsessive-Compulsive; BSI-PAR = Paranoid Ideation; BSI-PHOB = Phobia; BSI-PSY = Psychoticism; BSI-SOM = Somatization.

BDI = Beck Depression Inventory.

potentially relevant demographic variables (*i.e.*, gender, age, size of community in which participant was raised, income of family of origin, mother's education level, father's education) with each of the maltreatment variables and the measures of symptom status. These coefficients were computed for the total sample and for females and males separately. Other than the significant findings reported earlier with respect to gender differences, no meaningful relationships were discovered among demographic variables assessed and scores on any of the maltreatment subscales or measures of symptom status. As a result, these other demographic variables were not used in subsequent analyses. Rather than utilize gender as a covariate in subsequent analyses, as indicated already, most analyses were conducted separately for females and males in order to facilitate comparison of the present data with those of studies that have utilized or will utilize similar measures to those used here.

Relationships Among Primary Variables and Social Desirability

Relationships among the 11-item version of the Marlowe-Crowne Social Desirability Scale (MCSDS) and maltreatment variables and symptom status variables were examined to determine what influence, if any, social desirability might have had upon participants' responses to these questionnaire items.

Results revealed very weak or nil associations between social desirability and the CMQ subscale scores, with values ranging from .01 to .19 for females and from .03 to .19 for males. Average correlation values for the MCSDS were approximately .13 with the PMQ, .08 with the PAQ, .03 with the Parental SAQ, and .13 with the Nonparental SAQ. No meaningful associations were apparent between social desirability and physical abuse reports or parental sexual abuse reports for either gender, or with respect to contact and noncontact forms of nonparental sexual abuse for females, or any form of nonparental sexual abuse for males. In the few instances in which the MCSDS approached meaningful association with maltreatment reports (*i.e.*,

for Nonparental Sexual Harassment for females, and for three or four of the PMQ subscales for both genders, lower levels of social desirability tended to be associated with greater reports of maltreatment, suggesting a slight tendency for those less concerned with socially desirable responses to disclose greater levels of maltreatment. The results obtained here are comparable to those reported elsewhere for relationships between maltreatment measures and social desirability (*e.g.*, Bernstein & Fink, 1998).

Stronger associations were apparent between social desirability and symptom status scores, with values for the TSI ranging from .21 to .49 for females and from .12 to .39 for males. Correlation values for social desirability with the BSI ranged from .18 to .41 (.35 for the GSI) for females and from .16 to .29 (.30 for the GSI) for males. For the BDI, social desirability correlated .19 for females' scores and .35 for males' scores. In all cases, as with maltreatment reports, higher MCSDS scores, reflecting lower levels of social desirability, were associated with higher levels of self-reported symptom status, findings that also have been reported elsewhere (*e.g.*, Bernstein & Fink, 1998).

Although adjustments can be made for social desirability response bias, the relationships observed here between social desirability and symptom status reports are logical and predictable, and do not present compelling reasons to impose statistical control. In fact, such procedures may be contraindicated. First, there is no evidence of meaningful associations between the MCSDS and CMQ scores, indicating that reports of maltreatment were not meaningfully biased by social desirability, a more critical concern in the present study. In addition, the indications from these data are that those individuals who wish to appear "better" or "healthier" tend to report fewer problems. Such findings do not appear to be of particular importance to the examination of potential relationships among maltreatment experiences and symptom status, with the exception that the strength of any relationships among these variables might be

weakened somewhat by any tendency to minimize reports of maltreatment or symptoms. If the observed relationship was opposite, such that higher social desirability was associated with the reporting of greater symptomatology or maltreatment experiences, such findings might be of greater importance, perhaps suggesting that respondents had a tendency to exaggerate their reports, possibly due to experimental or societal demand characteristics, or to support their seeking of some form of secondary gain.

Perhaps more important, it is possible that social desirability as a construct may be associated in some unknown manner as a “component” of self-report responses. For example, it has been suggested that social desirability may in fact reflect a personality trait of “the need for approval,” and thus would be expected to correlate negatively with traits such as anger (*e.g.*, Saunders, 1991). Theoretically, individuals with this trait would actually have less anger and other undesirable traits, rather than merely under-reporting these symptoms in an attempt to deny or mask them. In this regard, it is of interest that the TSI subscales with which the MCSDS was most strongly associated for both genders (*i.e.*, Anger/Irritability and Tension Reduction Behavior) concerned disclosure of the expression of anger or aggression. To the extent that this or a related process may explain the relationship between symptom reports and social desirability, then partialling social desirability variance from these other self-report measures may, in fact, represent a case of partialling a component of a variable from itself, which is a statistical procedure that can lead to erroneous conclusions (*e.g.*, Briere, 1988, 1992b). Given these considerations, the MCSDS was not used in subsequent analyses.

Relationships Among Primary Variables and Personal Loss and Trauma

Perhaps of more direct concern when examining relationships among self-reported maltreatment experiences and symptom status is the potential influence of

additional factors known to affect symptom status, such as experiences of alternative forms of trauma or loss. Thus, to determine whether participants' scores on measures of symptom status might be related to sources of personal loss or trauma other than childhood maltreatment, Pearson product-moment correlation coefficients were computed between scores on the TSI, the BSI, and the BDI and a Trauma variable as well as a Loss variable. As discussed in a previous section, the Trauma variable assessed whether participants had experienced such events as serious accidents or natural disasters. The Loss variable assessed whether participants had experienced such losses in childhood as parental separation, serious illness of a parent, or deaths of significant others. Participants' responses to items comprising each of these measures were summed to produce a total score for the Trauma variable and for the Loss variable.

As indicated in Table 27, 58.4% of females and 69.9% of males had experienced at least one traumatic event during childhood other than maltreatment, and 75.4% of females and 69.4% of males had experienced one or more significant losses.

Correlation coefficients for these variables were computed for the total sample and for females and males separately. The Loss variable correlated .10 to .29 for females and .09 to .24 for males with these symptom scores, whereas the Trauma variable correlated .06 to .20 for females and .04 to .24 for males with these scores. Even though only a small number of marginally meaningful relationships were discovered between Trauma and symptom scores and between Loss and symptom scores, it was deemed appropriate to include these variables in relevant multivariate analyses that considered factors predictive of levels of psychological symptom status.

Multivariate Analyses of Relationships Between Maltreatment and Symptom Status

In order to examine in greater detail the relationships among maltreatment variables and measures of symptom status, Multivariate Analysis of Covariance

Table 27
Frequencies of Part 1 Participants Who Positively Endorsed Items Indicating
Experiences of Trauma and Loss During Childhood

Items	All ^a		Females ^b		Males ^c	
	f	(%)	f	(%)	f	(%)
<i>Trauma:</i>						
Serious accident	445	(36.7)	233	(31.8)	212	(44.1)
Serious fire or natural disaster	196	(16.1)	105	(14.3)	91	(18.9)
Life-threatening illness/major surgery	177	(14.6)	107	(14.6)	70	(14.6)
Robbery or mugging	238	(19.6)	129	(17.6)	109	(22.7)
Riot, war, or armed combat	73	(6.0)	26	(3.5)	47	(9.8)
Witness serious accident or tragic death	199	(16.4)	95	(13.0)	104	(21.6)
Witness murder	13	(1.1)	4	(0.5)	9	(1.9)
<i>Total^d</i>	<i>764</i>	<i>(62.9)</i>	<i>428</i>	<i>(58.4)</i>	<i>336</i>	<i>(69.9)</i>
<i>Loss:</i>						
Separation or divorce of parents	242	(19.9)	157	(21.4)	85	(17.7)
Other long period of separation from parent(s)	144	(11.9)	96	(13.1)	48	(10.0)
Serious illness of a parent or other close family member	425	(35.0)	258	(35.2)	167	(34.7)
Death of a parent	47	(3.9)	26	(3.5)	21	(4.4)
Death of very close relative or friend	675	(55.6)	426	(58.1)	249	(51.8)
<i>Total^e</i>	<i>887</i>	<i>(73.1)</i>	<i>553</i>	<i>(75.4)</i>	<i>334</i>	<i>(69.4)</i>

^a All Part 1 participants ($N = 1214$)

^b $n = 733$

^c $n = 481$

^d All Trauma items considered together

^e All Loss items considered together

(MANCOVA) was conducted to determine the extent to which maltreatment history was predictive of symptom status. A maltreatment/no maltreatment group was created for each of psychological maltreatment, physical abuse, and sexual abuse. Gender was also used as a factor, and Loss and Trauma were used as covariates. For the purpose of this analysis, participants were considered to have experienced physical abuse or sexual abuse if they positively endorsed one or more items on the PAQ or SAQ. For sexual abuse, only the Contact Sexual Abuse subscales were utilized, as this subform is most commonly utilized in definitions of sexual abuse. In addition, given the relatively small numbers of participants who had positively endorsed items indicating parental contact sexual abuse, the SAQ-Parental and SAQ-Nonparental Contact Sexual Abuse subscales were combined to create a single measure of contact sexual abuse. For psychological maltreatment, only those participants who reported having had experienced one or more parental behaviors comprising any of the PMQ subscales *often* or *very often* were considered to have been psychologically maltreated.

Results, presented in Table 28, reveal significant main effects for psychological maltreatment ($F_{(12, 1185)} = 8.21, p < .000$), for physical abuse ($F_{(12, 1185)} = 2.41, p = .004$), and for sexual abuse ($F_{(12, 1185)} = 5.11, p < .000$), such that means on symptom measures were significantly higher for maltreated groups. In addition, a significant main effect was obtained for gender ($F_{(12, 1185)} = 4.82, p < .000$), and for the Loss covariate ($F_{(12, 1185)} = 2.76, p = .001$), such that means on symptom measures were generally higher for females and for participants who reported having had experienced personal losses during childhood.

Post-hoc univariate statistics revealed significant differences in each of the symptom measures for psychological maltreatment, with effect sizes ranging from .35 to .54 for the TSI subscales (average effect size = .49), an effect size of .63 for the BSI General Severity Index, and an effect size of .55 for the BDI. For physical abuse, significant univariate findings were obtained for six of the TSI clinical scales (effect sizes ranging from .14 to

Table 28
Mean Scores and MANCOVA Statistics for Measures of Symptom Status as a Function of Maltreatment Type^a

Symptom Measure	Psychological Maltreatment (PM) $F_{(12, 1183)} = 8.21, p < .000$			Physical Abuse (PA) $F_{(12, 1183)} = 2.41, p = .004$			Sexual Abuse (SA) $F_{(12, 1183)} = 5.11, p < .000$		
	No PM ^b	PM ^c	ANOVA	No PA ^d	PA ^e	ANOVA	No SA ^f	SA ^g	ANOVA
	Mean (SD)	Mean (SD)	F^h sig ES^i	Mean (SD)	Mean (SD)	F^h sig ES^i	Mean (SD)	Mean (SD)	F^h sig ES^i
TSI AA	8.7 (4.3)	11.0 (4.8)	63.6 .000 .51	9.6 (4.8)	10.1 (4.6)	2.2	9.2 (4.6)	10.5 (4.9)	16.1 .000 .26
TSI DEP	6.2 (4.6)	9.1 (6.3)	64.0 .000 .54	7.3 (5.5)	8.0 (6.1)	3.1	7.3 (5.8)	8.0 (5.8)	3.1
TSI A/I	9.7 (5.6)	12.8 (6.8)	59.3 .000 .50	10.5 (6.3)	11.9 (6.6)	12.3 .001 .22	10.5 (6.2)	12.0 (7.0)	12.7 .001 .22
TSI IE	5.3 (4.5)	7.5 (5.7)	42.4 .000 .44	6.1 (5.2)	6.7 (5.4)	2.7	5.6 (4.9)	7.2 (5.8)	20.1 .000 .31
TSI DA	7.1 (5.7)	10.1 (6.4)	59.4 .000 .50	8.3 (6.3)	8.9 (6.4)	1.1	7.8 (6.1)	9.4 (6.5)	15.7 .000 .26
TSI DIS	6.8 (3.9)	9.1 (5.3)	57.5 .000 .52	7.6 (4.7)	8.4 (5.0)	6.6 .009 .17	7.6 (4.8)	8.4 (5.1)	6.4 .023 .17
TSI SC	5.1 (4.3)	7.3 (5.9)	43.0 .000 .45	5.8 (5.3)	6.6 (5.5)	4.5 .018 .14	5.4 (5.2)	7.0 (5.6)	19.5 .000 .29
TSI DSB	3.7 (4.0)	5.3 (5.2)	27.9 .000 .35	4.2 (4.5)	4.8 (5.0)	3.9 .026 .14	3.5 (4.0)	5.5 (5.5)	45.3 .000 .44
TSI ISR	8.4 (4.7)	11.1 (5.8)	63.5 .000 .53	9.2 (5.4)	10.3 (5.7)	9.7 .001 .20	9.2 (5.5)	10.3 (5.7)	9.3 .005 .20
TSI TRB	3.8 (2.8)	5.6 (4.1)	63.3 .000 .54	4.3 (3.5)	5.0 (3.9)	9.2 .002 .19	4.0 (3.3)	5.4 (4.2)	35.7 .000 .38
BSI GSI	.56 (.41)	.86 (.58)	84.7 .000 .63	.66 (.49)	.77 (.56)	11.5 .001 .21	.66 (.52)	.77 (.56)	9.1 .006 .21
BDI	5.9 (5.4)	9.4 (7.5)	64.9 .000 .55	7.4 (6.7)	8.0 (7.2)	1.4	7.2 (6.8)	8.2 (7.3)	4.5 .045 .14

^a Psychological maltreatment, Physical abuse, Contact sexual abuse, and Gender entered as factors; Loss, and Trauma entered as covariates

^b Participants who endorsed all psychological maltreatment items as never through sometimes ($n = 464$)

^c Participants who endorsed one or more psychological maltreatment items as often or very often ($n = 750$)

^d Participants who endorsed all physical abuse items as never ($n = 455$)

^e Participants who endorsed one or more physical abuse items greater than never ($n = 759$)

^f Participants who endorsed all Parental and Nonparental sexual abuse items as never ($n = 688$)

^g Participants who endorsed one or more Parental or Nonparental sexual abuse items greater than never ($n = 526$)

^h Univariate ANOVA F -statistic (1 and 1205 degrees of freedom)

ⁱ Effect size

.22; average = .18), and for the BSI (effect size = .21). For sexual abuse, significant univariate findings were obtained for all TSI subscales except for TSI Depression (effect sizes ranging from .17 to .44; average = .28), for the BSI (effect size = .21), and for the BDI (effect size = .14).

Multivariate regression analyses were then performed to determine the extent to which a history of each major subform of maltreatment (*i.e.*, psychological maltreatment, physical abuse, and sexual abuse) might be *uniquely* associated with symptom status. To accomplish this, the total score PMQ and total score PAQ were utilized to represent the broad forms of psychological maltreatment and physical abuse. Again, for sexual abuse, only the Contact Sexual Abuse subscales were utilized, and the SAQ-Parental and SAQ-Nonparental Contact Sexual Abuse subscales were combined to create a single measure of contact sexual abuse. Given evidence of potentially significant relationships between symptom measures and Loss and Trauma, these variables also were included in the analyses. All maltreatment variables and Loss and Trauma were allowed to compete for stepwise entry into equations predicting scores on each of the TSI clinical scales, as well as the General Severity Index of the BSI and the BDI.

Results are presented in Table 29 for females and in Table 30 for males. As the data indicate, psychological maltreatment was the strongest predictor, accounting for the vast majority of unique variability in symptom scores for all measures of symptom status for males, and for all but one measure for females (*i.e.*, TSI Dysfunctional Sexual Behavior (DSB), in which sexual abuse accounted for a greater amount of unique variability than did psychological maltreatment). In fact, for males, following the entry of psychological maltreatment into the regression equation, no other variables

were capable of contributing additional significant predictive variability for the BDI, the BSI, or for four of the 10 TSI clinical subscales.

Sexual abuse emerged as the second strongest predictor in most cases where more than one predictor entered the equation following psychological maltreatment, but in most cases, the amount of unique variability attributable to sexual abuse was quite small, ranging from 0.8% to 5.8% for females and from 1.2% to 6.8% for males.

Personal losses experienced in childhood emerged as significant, albeit weak, second-stage or later predictors of symptom status for four TSI clinical scales for females and two TSI scales for males, whereas the experience of traumatic events other than childhood maltreatment was a significant and weak predictor for one TSI clinical scale for both genders. In these cases, the TSI subscales with which these variables were associated were consistent with theoretical and intuitive expectations. For example, Trauma and Loss both were associated as unique predictors of Intrusive Experiences for both genders, whereas Loss also was associated with Depression for females and with Defensive Avoidance for both genders.

Interestingly, physical abuse emerged as a significant unique predictor only in three analyses for females, and in one analysis for males. In each case, the amount of unique variability contributed was negligible and, more important, the value of the regression coefficient was negative, despite the observation of positive zero-order coefficients between physical abuse and all symptom measures. These unusual findings are likely the result of a combination of several factors. First, students' endorsements of PAQ items were not particularly high, especially for more severe abuse acts that might be expected to better distinguish physical abuse from the construct of psychological maltreatment. In addition, psychological maltreatment appears to

Table 29
Statistics for the Stepwise Multivariate Regression Analyses^a of Maltreatment Variables, Trauma, and Loss on Measures of Symptom Status — Female Participants^b

MEASURE	Step ^c	Predictor entered	ΔRsq^d	ΔF^e	β^f	t^g	Unique ^h
TSI Anxious Arousal	1	Psychological Maltreatment	.122	101.2 ***	.33	9.3 ***	10.4%
	2	Sexual Abuse	.014	11.5 **	.12	3.4 **	1.4%
	<i>Rsqⁱ = .133 Total Unique Variance^j = 11.7% Total Shared Variance^k = 1.9%</i>						
TSI Depression	1	Psychological Maltreatment	.155	134.2 ***	.37	10.9 ***	13.5%
	2	Loss	.010	8.9 **	.10	3.0 **	1.0%
	<i>Rsq = .165 Total Unique Variance = 14.5% Total Shared Variance = 2.0%</i>						
TSI Anger / Irritability	1	Psychological Maltreatment	.131	110.4 ***	.44	9.1 ***	9.5%
	2	Physical Abuse	.011	9.0 **	-.16	-3.4 **	1.3%
	3	Sexual Abuse	.011	9.1	.09	2.7 *	0.9%
	4	Loss	.009	7.4	.09	2.7 *	0.8%
<i>Rsq = .156 Total Unique Variance = 12.5% Total Shared Variance = 3.1%</i>							
TSI Intrusive Experiences	1	Psychological Maltreatment	.165	143.3 ***	.33	9.9 ***	10.3%
	2	Sexual Abuse	.019	17.4 ***	.11	3.4 ***	1.1%
	3	Loss	.043	40.7 ***	.20	5.9 ***	3.6%
	4	Trauma	.007	6.7 *	.09	2.6 *	0.7%
<i>Rsq = .229 Total Unique Variance = 15.8% Total Shared Variance = 7.6%</i>							
TSI Defensive Avoidance	1	Psychological Maltreatment	.181	161.3 ***	.38	11.1 ***	13.3%
	2	Sexual Abuse	.021	19.0 ***	.13	3.9 ***	1.7%
	3	Loss	.017	15.7 ***	.13	3.9 ***	1.7%
<i>Rsq = .215 Total Unique Variance = 16.6% Total Shared Variance = 5.2%</i>							
TSI Dissociation	1	Psychological Maltreatment	.161	140.1 ***	.40	11.8 ***	16.1%
<i>Rsq = .161 Total Unique Variance = 15.3%</i>							
TSI Sexual Concerns	1	Psychological Maltreatment	.110	90.2 ***	.30	8.6 ***	8.8%
	2	Sexual Abuse	.024	20.1 ***	.16	4.5 ***	2.4%
<i>Rsq = .131 Total Unique Variance = 11.2% Total Shared Variance = 2.2%</i>							
TSI Dysfunctional Sexual Behavior	1	Sexual Abuse	.076	59.9 ***	.24	6.8 ***	5.8%
	2	Psychological Maltreatment	.028	23.1 ***	.17	4.8 ***	2.8%
<i>Rsq = .101 Total Unique Variance = 8.6% Total Shared Variance = 1.8%</i>							
TSI Impaired Self-Reference	1	Psychological Maltreatment	.129	108.1 ***	.46	9.4 ***	10.2%
	2	Physical Abuse	.013	11.0 **	-.17	-3.4 **	1.3%
	3	Sexual Abuse	.009	7.4 *	.09	2.7 *	0.9%
<i>Rsq = .147 Total Unique Variance = 12.4% Total Shared Variance = 2.3%</i>							
TSI Tension Reduction Behavior	1	Psychological Maltreatment	.126	104.9 ***	.32	9.3 ***	10.0%
	2	Sexual Abuse	.031	27.0 ***	.18	5.2 ***	3.1%
<i>Rsq = .154 Total Unique Variance = 13.1% Total Shared Variance = 2.6%</i>							
BSI General Severity Index	1	Psychological Maltreatment	.216	201.5 ***	.58	12.5 ***	16.3%
	2	Physical Abuse	.017	15.7 ***	-.19	-4.1 **	1.7%
	3	Sexual Abuse	.008	7.9 **	.09	2.8 **	0.8%
<i>Rsq = .238 Total Unique Variance = 18.8% Total Shared Variance = 5.0%</i>							
Beck Depression Inventory	1	Psychological Maltreatment	.163	142.5 ***	.39	11.3 ***	14.4%
	2	Sexual Abuse	.008	7.3 *	.09	2.7 *	0.8%
<i>Rsq = .169 Total Unique Variance = 15.3% Total Shared Variance = 1.8%</i>							

*** $p < .0005$ ** $p < .005$ * $p < .01$

^a Stepwise entry of Psychological Maltreatment, Physical Abuse, Sexual Abuse, Trauma, Loss.

^b All females who participated during Part I (N = 733)

^c Step at which predictor entered the regression equation; significance level of F to enter was set at .01

^d R square change at each step ^e F change at each step ^f Standardized regression coefficient ^g t statistic

^h Amount of unique variance contributed by each predictor, computed by the squared semipartial correlation at the final step

ⁱ Adjusted R square value for the equation at the final step

^j Total unique variance contributed by all predictors in the equation at the final step

^k Total shared variance by all predictors in the equation at the final step

Table 30
Statistics for the Stepwise Multivariate Regression Analyses^a of Maltreatment Variables, Trauma, and Loss on Measures of Symptom Status — Male Participants^b

MEASURE	Step ^c	Predictor entered	ΔRsq^d	ΔF^e	β^f	t^g	Unique ^h
TSI Anxious Arousal	1	Psychological Maltreatment	.151	85.5***	.37	8.8***	13.5%
	2	Sexual Abuse	.012	7.1*	.11	2.7*	1.2%
<i>Rsqⁱ = .160 Total Unique Variance^j = 14.7% Total Shared Variance^k = 1.3%</i>							
TSI Depression	1	Psychological Maltreatment	.219	135.0***	.47	11.6***	22.0%
<i>Rsq = .220 Total Unique Variance = 22.0%</i>							
TSI Anger / Irritability	1	Psychological Maltreatment	.143	79.4***	.38	8.9***	14.3%
<i>Rsq = .143 Total Unique Variance = 14.3%</i>							
TSI Intrusive Experiences	1	Psychological Maltreatment	.123	67.2***	.27	6.3***	6.6%
	2	Sexual Abuse	.033	18.9***	.17	3.9***	2.6%
	3	Loss	.028	16.1***	.15	3.5***	2.0%
	4	Trauma	.016	9.7**	.13	3.1**	1.6%
<i>Rsq = .201 Total Unique Variance = 12.8% Total Shared Variance = 7.3%</i>							
TSI Defensive Avoidance	1	Psychological Maltreatment	.108	58.0***	.28	6.4***	7.5%
	2	Sexual Abuse	.018	9.7**	.14	3.1**	1.8%
	3	Loss	.014	7.5*	.12	2.7*	1.3%
<i>Rsq = .134 Total Unique Variance = 10.6% Total Shared Variance = 2.8%</i>							
TSI Dissociation	1	Psychological Maltreatment	.165	94.3***	.41	9.7***	16.5%
<i>Rsq = .165 Total Unique Variance = 16.5%</i>							
TSI Sexual Concerns	1	Psychological Maltreatment	.136	75.7***	.37	8.7***	13.6%
<i>Rsq = .136 Total Unique Variance = 13.6%</i>							
TSI Dysfunctional Sexual Behavior	1	Psychological Maltreatment	.096	50.9***	.27	6.4***	7.1%
	2	Sexual Abuse	.069	39.3***	.26	6.3***	6.8%
<i>Rsq = .161 Total Unique Variance = 13.9% Total Shared Variance = 2.2%</i>							
TSI Impaired Self-Reference	1	Psychological Maltreatment	.222	136.7***	.60	11.6***	19.1%
	2	Physical Abuse	.019	12.2**	-.19	-3.5**	1.9%
<i>Rsq = .238 Total Unique Variance = 21.0% Total Shared Variance = 2.8%</i>							
TSI Tension Reduction Behavior	1	Psychological Maltreatment	.185	108.4***	.40	9.8***	15.5%
	2	Sexual Abuse	.041	25.1***	.20	5.0***	4.1%
<i>Rsq = .222 Total Unique Variance = 19.6% Total Shared Variance = 2.6%</i>							
BSI General Severity Index	1	Psychological Maltreatment	.311	216.2***	.56	14.7***	31.0%
<i>Rsq = .310 Total Unique Variance = 31.0%</i>							
Beck Depression Inventory	1	Psychological Maltreatment	.207	125.2***	.46	11.2***	20.7%
<i>Rsq = .207 Total Unique Variance = 20.7%</i>							

*** $p < .0005$ ** $p < .005$ * $p < .01$

^a Stepwise entry of Psychological Maltreatment, Physical Abuse, Sexual Abuse, Trauma, Loss.

^b All males who participated during Part 1 ($N = 481$)

^c Step at which predictor was entered into the regression equation; significance level of F to enter was set at .01

^d R square change at each step ^e F change at each step ^f Standardized regression coefficient ^g t statistic

^h Amount of unique variance contributed by each predictor, computed by the squared semipartial correlation at the final step

ⁱ Adjusted R square value for the equation at the final step

^j Total unique variance contributed by all predictors in the equation at the final step

^k Total shared variance by all predictors in the equation at the final step

co-occur with physical abuse to a high degree, as evidenced by the results of the comorbidity frequency analyses. Thus, these factors combine to manifest in a low correlation between the PAQ and symptom measures and a high correlation between the PMQ and the PAQ, such that any variability contributed by the PAQ is likely to be both small and redundant with that contributed by the PMQ. In this respect, PAQ may actually have functioned as a mild “suppressor” variable (*e.g.*, Darlington, 1990; Tabachnick & Fidell, 1989) in some regression analyses, hence the observation of negative beta weights.

Overall, for this sample, results from the multivariate regression analyses point to the primacy of childhood psychological maltreatment, measured by the PMQ, as a predictor of psychological symptomatology in adulthood, relative both to physical abuse, measured by the PAQ, and sexual abuse, measured by the SAQ. In addition, childhood psychological maltreatment appears to be a stronger predictor of psychological symptom status in adulthood than are alternative forms of childhood trauma, or personal loss experienced by university students. However, the results with respect to Trauma and Loss should be interpreted particularly cautiously, given the rudimentary nature of the measures utilized to assess alternative trauma and loss, as these measures have not been proven with respect to reliability and validity.

Convergent and Discriminant Validity of the PMQ

As discussed earlier, the adult version of the Parental Acceptance and Rejection Questionnaire (PARQ) was included in the present study to assist in the measurement of convergent validity of the PMQ. Mean scores, internal consistency reliability coefficients, and *t*-statistics comparing females’ and males’ scores on the PARQ are presented in Table 31. The values obtained are highly consistent with those provided by Rohner (1991) as normative data for the measure, despite the slight modification made in the present study to the PARQ instructions. In the present study, significant

Table 31
PARQ Mean Scores, Standard Deviations, and Internal Consistency Reliability Coefficients^a

Form of Maltreatment	Potential Range	All Participants ^b		Females ^c		Males ^d		t-test ^f
		α^e	Mean (SD)	α^e	Mean (SD)	α^e	Mean (SD)	<i>t</i>
PARQ TOTAL SCORE	60-240	.97	206.50 (31.04)	.98	208.85 (31.59)	.97	202.91 (29.85)	<i>3.31</i>
<i>Subscales:</i>								
Warmth / Affection	20-80	.96	30.50 (12.16)	.96	29.55 (12.16)	.96	31.97 (12.04)	<i>-3.28</i>
Aggression / Hostility	15-60	.92	51.02 (8.76)	.92	51.44 (8.94)	.91	50.38 (8.44)	2.10
Neglect / Indifference	15-60	.90	52.48 (7.63)	.90	53.05 (7.57)	.89	51.60 (7.66)	<i>3.25</i>
Rejection (Undifferentiated)	10-40	.83	33.37 (5.57)	.84	33.80 (5.67)	.81	32.71 (5.34)	<i>3.40</i>

^a Total number of students who participated in Part 1

^b *N* = 1,214

^c *N* = 733

^d *N* = 481

^e Alpha internal consistency reliability statistic

^f *t*-test statistic comparing scores for females vs males. Degrees of freedom = 1,213. Bold italicized values are significant at *p* < .001.

but weak gender differences were observed at an alpha level of .001 for three of the four PARQ subscales, with females scoring higher on measures consistent with greater experiences of Neglect/Indifference (effect size = .20) and Rejection (Undifferentiated) (effect size = .19), and fewer experiences of Warmth/Affection (effect size = .20). Unfortunately, Rohner (1991) did not provide normative data for the PARQ separately for females and males to allow comparison of gender differences.

Pearson correlation coefficients for the associations of CMQ scales and subscales with the total PARQ and its subscales are presented in Table 32 for females and males separately. Lower scores on the PARQ are indicative of greater levels of maltreatment, and the opposite is true for the PMQ. Thus, to improve readability, the negative sign that applied to each coefficient, indicative of a positive relationship between the respective PMQ and PARQ measure, was omitted from the tables.

Results indicate high correlation between the total PARQ and the total PMQ ($r = .74$), moderate correlation between the total PARQ and the PAQ ($r = .58$), low correlation between the total PARQ and the SAQ-Parental version ($r = .28$), and no meaningful correlation between the total PARQ and the SAQ-Nonparental version ($r = .15$). This expected pattern of relationships is generally consistent with relationships observed between the PMQ and each of the other CMQ questionnaires (see Tables 20 to 22), such that like forms of maltreatment are more highly correlated with one another, and this is indicative of reasonable convergent validity of the PMQ.

In addition, PARQ subscales appear to be correlated with PMQ subscales in expected ways, with subscales theoretically most similar tending to be more strongly correlated than theoretically less similar subscales. For example, the PARQ Rejection (Undifferentiated) subscale is most strongly correlated with the PMQ Rejecting subscale, the PARQ Neglect/Indifference subscale is most strongly associated with the PMQ Denying Emotional Responsiveness subscale, as is the PARQ Warmth/Affection

Table 32
Correlations of CMO scores with PARQ scores — Females and Males^a

Form of Maltreatment	PARQ Total Score		PARQ Warmth / Affection		PARQ Aggression / Hostility		PARQ Neglect/ Indifference		PARQ Rejection (Undiff.)	
	F ^b	M ^c	F	M	F	M	F	M	F	M
PMQ TOTAL SCORE	.74	.71	.64	.56	.75	.68	.67	.65	.73	.64
<i>Subscales:</i>										
Controlling/Stifling Independence	.57	.51	.48	.42	.59	.49	.48	.44	.58	.47
Corrupting	.38	.36	.29	.26	.37	.35	.35	.34	.39	.34
Degrading	.67	.58	.57	.43	.70	.60	.58	.50	.66	.57
Denying Emotional Responsiveness	.70	.64	.65	.58	.64	.54	.67	.60	.63	.52
Exploiting (Nonsexual)	.60	.57	.50	.44	.60	.55	.55	.53	.60	.52
Isolating	.53	.50	.46	.41	.53	.48	.46	.44	.53	.44
Physical Neglect	.60	.54	.53	.46	.54	.46	.60	.57	.54	.43
Physical Terrorism	.59	.52	.48	.36	.64	.56	.51	.47	.57	.53
Rejecting	.70	.66	.61	.54	.70	.62	.62	.59	.70	.62
Unreliable & Inconsistent Care	.62	.59	.54	.46	.60	.56	.61	.57	.59	.52
Verbal Terrorism	.64	.54	.52	.38	.68	.58	.55	.47	.63	.54
Witness to Violence	.52	.44	.44	.33	.52	.43	.48	.42	.48	.40
PAQ TOTAL SCORE	.59	.55	.49	.39	.66	.59	.50	.49	.58	.54
<i>Subscales:</i>										
Physical Abuse	.60	.55	.49	.39	.67	.57	.50	.48	.58	.54
Severe Physical Abuse	.38	.37	.31	.27	.42	.37	.31	.35	.38	.36
SAQ-Parental TOTAL SCORE	.26	.33	.22	.24	.26	.31	.23	.28	.25	.35
<i>Subscales:</i>										
Sexual Harassment	.24	.33	.21	.24	.24	.30	.22	.28	.22	.34
Noncontact Sexual Abuse	.27	.30	.22	.23	.27	.29	.25	.26	.27	.33
Contact Sexual Abuse	.22	.28	.19	.19	.22	.29	.20	.24	.21	.32
SAQ-Nonparental TOTAL SCORE	.18	.12	.13	.08	.21	.13	.16	.12	.17	.14
<i>Subscales:</i>										
Sexual Harassment	.19	.16	.14	.11	.22	.17	.18	.16	.17	.17
Noncontact Sexual Abuse	.20	.11	.16	.07	.23	.10	.16	.11	.20	.14
Contact Sexual Abuse	.13	.08	.10	.04	.16	.08	.11	.07	.13	.09

^a Total number of students who participated in Part 1

^b Female participants, N = 733

^c Male participants, N = 481

subscale. The PARQ Aggression/Hostility subscale, a more diverse subscale that includes items relevant to degrading, rejecting, terrorizing, and physical abuse behaviors is associated most strongly with PMQ Degrading, Rejecting, and Verbal Terrorism subscales, as well as with the PAQ. Although the associations among similar-construct PMQ and PARQ subscales appear to be only slightly stronger than associations with other subscales, and are unlikely to represent statistically significant findings in this regard, the observed trend in this direction is nonetheless supportive of indications of reasonable concurrent validity of the PMQ.

Incremental Validity of the PMQ

Next, hierarchical multiple regression analyses were conducted in order to examine incremental validity of the PMQ. As discussed earlier, incremental validity of a measure is indicated by the increase in predictive validity that can be attributed to it in multivariate analysis in which some of the variability in the criterion variable already has been accounted for by an alternative measure. Thus, the total PARQ was entered first into multivariate regression analyses predicting each of the measures of symptom status. At the second step, the total PMQ was allowed to enter the equation to determine whether the PMQ could account for additional significant variability in symptom scores, beyond that accounted for the PARQ.

Results, presented in Table 33, indicate that for both genders, without exception, the PMQ explained a significant amount of additional variability in TSI clinical scale scores, as well as in the total BSI and the BDI. In fact, examination of the amount of unique variability contributed by the PARQ and the PMQ, as computed from the squared semipartial correlation coefficients, reveals that, although a great deal of variability in symptom status was shared by the two measures, the PMQ contributed substantially more unique variability than did the PARQ in every case. For example, for TSI Anxious Arousal, the PMQ accounted for 8.0%, whereas the PARQ accounted

for 0.6% of the total 8.6% of unique variability for females; for males, the PMQ accounted for 10.0%, whereas the PARQ accounted for 0.4% of the total 10.4% of unique variability.

In order to explore incremental validity of specific PMQ subscales, additional analyses were performed using pairs of roughly equivalent subscales of the PARQ and the PMQ, based upon item content. Specifically, PARQ Rejection (Undifferentiated) was paired with PMQ Rejecting, PARQ Aggression/Hostility was paired with PMQ Degrading, PARQ Neglect/Indifference was paired with PMQ Denying Emotional Responsiveness, and PARQ Warmth/Affection also was paired with PMQ Denying Emotional Responsiveness. Results from these analyses, presented in Tables 34 through 37, were very similar to those obtained using the total PARQ and the total PMQ. In all analyses, with the exception of one TSI scale for males, the PMQ subscale was found to contribute additional significant unique variability beyond that accounted for by the corresponding PARQ subscale. In addition, in almost all cases, the amount of variability contributed by the PMQ subscale was greater than that contributed by the PARQ subscale. In sum, these results provide strong evidence of incremental validity of the PMQ.

Stability and Test-Retest Reliability of the CMQ

Test-retest reliability of the CMQ was assessed by comparison of scores attained during Part 1 and Part 2 of the study. As described earlier, roughly half of the full sample of students returned after a 4-month lag to complete many of the same measures completed earlier, including most component questionnaires of the CMQ.³ Mean scores, standard deviations, alpha consistency reliability values, test-retest correlation coefficients, and t-statistics comparing Part 1 and Part 2 mean scores for these 604

³ Because the SAQ-Nonparental version was not administered at Part 2, test-retest data are not presented for this questionnaire.

Table 33
Statistics for the Hierarchical Multivariate Regression Analyses of the Total Score
PARQ and the Total Score PMQ on Measures of Symptom Status^a

MEASURES	FEMALES ^b					MALES ^c				
	Step	Predictor	ΔRsq^d	ΔF^e	Unique ^f	Step	Predictor	ΔRsq^d	ΔF^e	Unique ^f
TSI Anxious Arousal	1	PARQ	.048	37.0	0.6%	1	PARQ	.055	27.7	0.4%
	2	PMQ	.080	66.9	8.0%	2	PMQ	.101	57.0	10.0%
	<i>Rsq^g = .126 Unique^h = 8.6% Sharedⁱ = 4.0%</i>					<i>Rsq^g = .152 Unique^h = 10.4% Sharedⁱ = 4.8%</i>				
TSI Depression	1	PARQ	.099	80.0	0.2%	1	PARQ	.124	67.6	0.1%
	2	PMQ	.056	48.7	5.7%	2	PMQ	.097	59.3	9.7%
	<i>Rsq = .153 Unique = 5.9% Shared = 9.4%</i>					<i>Rsq = .217 Unique = 9.8% Shared = 11.9%</i>				
TSI Anger / Irritability	1	PARQ	.059	45.6	0.4%	1	PARQ	.076	39.4	0.0%
	2	PMQ	.076	64.4	7.6%	2	PMQ	.066	36.9	6.6%
	<i>Rsq = .133 Unique = 8.0% Shared = 5.3%</i>					<i>Rsq = .139 Unique = 6.6% Shared = 7.3%</i>				
TSI Intrusive Experiences	1	PARQ	.092	74.3	0.3%	1	PARQ	.064	32.7	0.0%
	2	PMQ	.072	62.8	8.7%	2	PMQ	.059	32.2	5.9%
	<i>Rsq = .162 Unique = 7.5% Shared = 8.7%</i>					<i>Rsq = .119 Unique = 5.9% Shared = 6.0%</i>				
TSI Defensive Avoidance	1	PARQ	.112	92.2	0.1%	1	PARQ	.056	28.4	0.0%
	2	PMQ	.069	61.3	6.9%	2	PMQ	.052	27.8	5.2%
	<i>Rsq = .181 Unique = 7.0% Shared = 11.1%</i>					<i>Rsq = .104 Unique = 5.2% Shared = 5.2%</i>				
TSI Dissociation	1	PARQ	.081	64.2	0.2%	1	PARQ	.067	34.5	0.2%
	2	PMQ	.082	71.3	8.2%	2	PMQ	.099	56.5	9.9%
	<i>Rsq = .162 Unique = 8.4% Shared = 7.8%</i>					<i>Rsq = .162 Unique = 10.1% Shared = 6.1%</i>				
TSI Sexual Concerns	1	PARQ	.038	29.1	0.9%	1	PARQ	.091	47.7	0.3%
	2	PMQ	.080	66.1	8.0%	2	PMQ	.050	27.6	5.0%
	<i>Rsq = .116 Unique = 8.9% Shared = 2.7%</i>					<i>Rsq = .137 Unique = 5.3% Shared = 8.4%</i>				
TSI Dysfunctional Sexual Behavior	1	PARQ	.016	12.1	0.4%	1	PARQ	.062	31.7	0.2%
	2	PMQ	.034	25.7	3.3%	2	PMQ	.036	18.9	3.6%
	<i>Rsq = .047 Unique = 3.7% Shared = 15.4%</i>					<i>Rsq = .094 Unique = 3.8% Shared = 5.6%</i>				
TSI Impaired Self- Reference	1	PARQ	.069	54.5	0.6%	1	PARQ	.096	51.0	0.1%
	2	PMQ	.060	50.3	6.0%	2	PMQ	.127	78.2	12.7%
	<i>Rsq = .127 Unique = 6.6% Shared = 6.1%</i>					<i>Rsq = .220 Unique = 12.8% Shared = 9.2%</i>				
TSI Tension Reduction Behavior	1	PARQ	.057	43.8	0.3%	1	PARQ	.100	53.3	0.0%
	2	PMQ	.072	60.6	7.2%	2	PMQ	.085	49.6	8.5%
	<i>Rsq = .126 Unique = 7.5% Shared = 5.1%</i>					<i>Rsq = .181 Unique = 8.5% Shared = 9.6%</i>				
BSI General Severity Index	1	PARQ	.097	78.3	0.6%	1	PARQ	.163	93.4	0.0%
	2	PMQ	.125	117.6	12.5%	2	PMQ	.148	102.5	14.7%
	<i>Rsq = .220 Unique = 13.1% Shared = 8.9%</i>					<i>Rsq = .308 Unique = 14.7% Shared = 16.1%</i>				
Beck Depression Inventory	1	PARQ	.098	79.1	0.0%	1	PARQ	.110	59.3	0.0%
	2	PMQ	.065	57.1	6.6%	2	PMQ	.097	58.7	9.7%
	<i>Rsq = .161 Unique = 6.6% Shared = 9.5%</i>					<i>Rsq = .204 Unique = 9.7% Shared = 10.7%</i>				

^a PARQ total score entered at Step 1; PMQ total score entered at Step 2

^b All females who participated during Part 1 (N = 733)

^c All males who participated during Part 1 (N = 481)

^d R square change at each step

^e F statistic change at each step. All F values significant at $p < .0005$

^f Amount of unique variability contributed by each predictor in the final regression equation

^g Adjusted R square for the final equation

^h Combined unique variance contributed by both predictors in the equation

ⁱ Amount of variance shared by both predictors in the equation

Table 34
Statistics for the Hierarchical Multivariate Regression Analyses of the PARQ Rejecting (Undifferentiated) and the PMQ Rejecting Subscale on Measures of Symptom Status^a

MEASURES	FEMALES ^b					MALES ^c				
	Step	Predictor	ΔRsq^d	ΔF^e	Unique ^f	Step	Predictor	ΔRsq^d	ΔF^e	Unique ^f
TSI Anxious Arousal	1	PARQ - Rej	.064	49.7	0.7%	1	PARQ - Rej	.064	32.8	1.3%
	2	PMQ - Rej	.018	14.6	1.8%	2	PMQ - Rej	.020	10.4	2.0%
	<i>Rsq^g = .079 Unique^h = 2.5% Sharedⁱ = 5.4%</i>					<i>Rsq^g = .080 Unique^h = 3.3% Sharedⁱ = 4.7%</i>				
TSI Depression	1	PARQ - Rej	.090	72.5	0.4%	1	PARQ - Rej	.104	55.3	0.8%
	2	PMQ - Rej	.048	40.5	4.8%	2	PMQ - Rej	.074	43.0	7.4%
	<i>Rsq = .136 Unique = 5.2% Shared = 8.4%</i>					<i>Rsq = .174 Unique = 8.2% Shared = 9.2%</i>				
TSI Anger / Irritability	1	PARQ - Rej	.070	54.7	0.3%	1	PARQ - Rej	.070	36.2	1.8%
	2	PMQ - Rej	.035	28.9	3.5%	2	PMQ - Rej	.015	8.1	1.5%
	<i>Rsq = .103 Unique = 3.8% Shared = 6.5%</i>					<i>Rsq = .082 Unique = 3.3% Shared = 4.9%</i>				
TSI Intrusive Experiences	1	PARQ - Rej	.092	74.3	0.8%	1	PARQ - Rej	.069	35.6	2.1%
	2	PMQ - Rej	.032	27.1	3.2%	2	PMQ - Rej	.010	4.9	1.0%
	<i>Rsq = .122 Unique = 4.0% Shared = 8.2%</i>					<i>Rsq = .075 Unique = 3.1% Shared = 4.4%</i>				
TSI Defensive Avoidance	1	PARQ - Rej	.114	94.5	1.2%	1	PARQ - Rej	.037	18.4	0.3%
	2	PMQ - Rej	.036	31.1	3.6%	2	PMQ - Rej	.024	12.3	2.4%
	<i>Rsq = .148 Unique = 4.8% Shared = 10.0%</i>					<i>Rsq = .057 Unique = 2.7% Shared = 3.0%</i>				
TSI Dissociation	1	PARQ - Rej	.079	63.1	0.7%	1	PARQ - Rej	.057	29.1	0.4%
	2	PMQ - Rej	.028	23.3	2.9%	2	PMQ - Rej	.043	22.6	4.2%
	<i>Rsq = .105 Unique = 3.9% Shared = 6.6%</i>					<i>Rsq = .096 Unique = 4.6% Shared = 5.0%</i>				
TSI Sexual Concerns	1	PARQ - Rej	.047	36.0	0.4%	1	PARQ - Rej	.068	34.8	1.6%
	2	PMQ - Rej	.016	12.4	1.6%	2	PMQ - Rej	.017	8.9	1.7%
	<i>Rsq = .060 Unique = 2.0% Shared = 4.0%</i>					<i>Rsq = .081 Unique = 3.3% Shared = 4.8%</i>				
TSI Dysfunctional Sexual Behavior	1	PARQ - Rej	.010	9.9	0.0%	1	PARQ - Rej	.058	29.4	5.8%
	2	PMQ - Rej	.011	25.7	1.1%					
	<i>Rsq = .018 Unique = 1.1% Shared = 0.7%</i>					<i>Rsq = .058 Unique = 5.8%</i>				
TSI Impaired Self-Reference	1	PARQ - Rej	.069	54.0	0.4%	1	PARQ - Rej	.088	46.4	1.0%
	2	PMQ - Rej	.033	26.9	3.3%	2	PMQ - Rej	.049	27.1	4.9%
	<i>Rsq = .099 Unique = 3.7% Shared = 6.2%</i>					<i>Rsq = .137 Unique = 5.9% Shared = 7.8%</i>				
TSI Tension Reduction Behavior	1	PARQ - Rej	.064	50.1	0.4%	1	PARQ - Rej	.090	47.4	1.5%
	2	PMQ - Rej	.027	22.1	2.8%	2	PMQ - Rej	.034	18.5	3.4%
	<i>Rsq = .089 Unique = 3.2% Shared = 5.7%</i>					<i>Rsq = .120 Unique = 4.9% Shared = 7.1%</i>				
BSI General Severity Index	1	PARQ - Rej	.100	81.3	0.2%	1	PARQ - Rej	.146	82.0	2.2%
	2	PMQ - Rej	.067	58.8	6.7%	2	PMQ - Rej	.063	37.8	6.3%
	<i>Rsq = .165 Unique = 6.9% Shared = 9.6%</i>					<i>Rsq = .205 Unique = 8.5% Shared = 12.0%</i>				
Beck Depression Inventory	1	PARQ - Rej	.084	66.7	0.3%	1	PARQ - Rej	.077	39.9	0.3%
	2	PMQ - Rej	.049	40.9	4.9%	2	PMQ - Rej	.072	40.4	7.2%
	<i>Rsq = .130 Unique = 5.2% Shared = 7.8%</i>					<i>Rsq = .149 Unique = 7.5% Shared = 7.4%</i>				

^a PARQ Rejecting (Undifferentiated) subscale score entered at Step 1; PMQ Rejecting subscale score entered at Step 2

^b All females who participated during Part 1 (N = 733)

^c All males who participated during Part 1 (N = 481)

^d R square change at each step

^e F statistic change at each step.

^f Amount of unique variability contributed by each predictor in the final regression equation

^g Adjusted R square for the final equation

^h Combined unique variance contributed by both predictors in the equation

ⁱ Amount of variance shared by both predictors in the equation

Table 35
Statistics for the Hierarchical Multivariate Regression Analyses of the PARO
Aggression/Hostility Subscale and the PMQ Degrading Subscale on Measures of
Symptom Status^a

MEASURES	FEMALES ^b					MALES ^c				
	Step	Predictor	ΔRsq^d	ΔF^e	Unique ^f	Step	Predictor	ΔRsq^d	ΔF^e	Unique ^f
TSI Anxious Arousal	1	PARQ - A/H	.060	47.1	0.1%	1	PARQ - A/H	.069	35.5	0.9%
	2	PMQ - Deg	.042	34.5	4.2%	2	PMQ - Deg	.035	18.9	3.5%
	<i>Rsq^g = .100 Unique^h = 4.3% Sharedⁱ = 5.7%</i>					<i>Rsq^g = .101 Unique^h = 4.4% Sharedⁱ = 5.7%</i>				
TSI Depression	1	PARQ - A/H	.100	81.1	0.3%	1	PARQ - A/H	.106	56.6	0.9%
	2	PMQ - Deg	.056	48.7	5.6%	2	PMQ - Deg	.071	41.1	7.1%
	<i>Rsq = .154 Unique = 5.9% Shared = 9.5%</i>					<i>Rsq = .173 Unique = 8.0% Shared = 9.3%</i>				
TSI Anger / Irritability	1	PARQ - A/H	.077	60.7	0.3%	1	PARQ - A/H	.097	51.3	2.0%
	2	PMQ - Deg	.041	33.7	4.1%	2	PMQ - Deg	.029	15.9	2.9%
	<i>Rsq = .115 Unique = 4.4% Shared = 7.1%</i>					<i>Rsq = .122 Unique = 4.9% Shared = 7.3%</i>				
TSI Intrusive Experiences	1	PARQ - A/H	.087	69.6	0.5%	1	PARQ - A/H	.061	30.8	0.6%
	2	PMQ - Deg	.039	32.9	4.0%	2	PMQ - Deg	.037	19.4	3.6%
	<i>Rsq = .124 Unique = 4.5% Shared = 7.9%</i>					<i>Rsq = .097 Unique = 4.2% Shared = 5.5%</i>				
TSI Defensive Avoidance	1	PARQ - A/H	.114	94.0	1.4%	1	PARQ - A/H	.052	26.2	0.5%
	2	PMQ - Deg	.030	25.2	3.0%	2	PMQ - Deg	.031	16.0	3.1%
	<i>Rsq = .141 Unique = 4.4% Shared = 9.7%</i>					<i>Rsq = .079 Unique = 3.6% Shared = 4.3%</i>				
TSI Dissociation	1	PARQ - A/H	.097	78.4	1.1%	1	PARQ - A/H	.055	27.7	0.1%
	2	PMQ - Deg	.028	23.3	2.8%	2	PMQ - Deg	.066	36.0	6.6%
	<i>Rsq = .122 Unique = 3.9% Shared = 8.3%</i>					<i>Rsq = .117 Unique = 6.7% Shared = 5.0%</i>				
TSI Sexual Concerns	1	PARQ - A/H	.057	44.4	0.6%	1	PARQ - A/H	.069	35.6	1.6%
	2	PMQ - Deg	.018	14.0	1.8%	2	PMQ - Deg	.017	9.1	1.7%
	<i>Rsq = .073 Unique = 2.4% Shared = 4.9%</i>					<i>Rsq = .083 Unique = 3.3% Shared = 5.0%</i>				
TSI Dysfunctional Sexual Behavior	1	PARQ - A/H	.016	12.7	0.2%	1	PARQ - A/H	.059	30.2	1.7%
	2	PMQ - Deg	.010	6.8	0.7%	2	PMQ - Deg	.012	6.2	1.2%
	<i>Rsq = .026 Unique = 0.9% Shared = 1.7%</i>					<i>Rsq = .067 Unique = 2.9% Shared = 3.8%</i>				
TSI Impaired Self-Reference	1	PARQ - A/H	.077	60.6	0.5%	1	PARQ - A/H	.090	47.3	0.8%
	2	PMQ - Deg	.032	26.5	3.2%	2	PMQ - Deg	.057	32.2	5.8%
	<i>Rsq = .107 Unique = 3.7% Shared = 7.0%</i>					<i>Rsq = .144 Unique = 6.6% Shared = 7.8%</i>				
TSI Tension Reduction Behavior	1	PARQ - A/H	.078	61.6	0.9%	1	PARQ - A/H	.110	58.9	1.9%
	2	PMQ - Deg	.021	17.2	2.1%	2	PMQ - Deg	.040	22.7	4.0%
	<i>Rsq = .096 Unique = 3.0% Shared = 6.6%</i>					<i>Rsq = .146 Unique = 5.9% Shared = 8.7%</i>				
BSI General Severity Index	1	PARQ - A/H	.099	80.3	0.1%	1	PARQ - A/H	.160	91.5	2.3%
	2	PMQ - Deg	.069	60.1	6.9%	2	PMQ - Deg	.072	44.9	7.2%
	<i>Rsq = .165 Unique = 7.0% Shared = 9.5%</i>					<i>Rsq = .229 Unique = 9.5% Shared = 13.4%</i>				
Beck Depression Inventory	1	PARQ - A/H	.089	71.4	0.4%	1	PARQ - A/H	.101	53.9	1.2%
	2	PMQ - Deg	.046	38.8	4.6%	2	PMQ - Deg	.055	31.2	5.5%
	<i>Rsq = .133 Unique = 5.0% Shared = 8.3%</i>					<i>Rsq = .153 Unique = 6.7% Shared = 8.6%</i>				

^a PARQ Aggression/Hostility subscale score entered at Step 1; PMQ Degrading subscale score entered at Step 2

^b All females who participated during Part 1 (N = 733)

^c All males who participated during Part 1 (N = 481)

^d R square change at each step

^e F statistic change at each step. All F values significant at $p < .0005$

^f Amount of unique variability contributed by each predictor in the final regression equation

^g Adjusted R square for the final equation

^h Combined unique variance contributed by both predictors in the equation

ⁱ Amount of variance shared by both predictors in the equation

Table 36
Statistics for the Hierarchical Multivariate Regression Analyses of the
PARQ Neglect/Indifference Subscale and the PMQ Denying Emotional Responsiveness
Subscale on Measures of Symptom Status^a

MEASURES	FEMALES ^b					MALES ^c				
	Step	Predictor	ΔRsq^d	ΔF^e	Unique ^f	Step	Predictor	ΔRsq^d	ΔF^e	Unique ^f
TSI Anxious Arousal	1	PARQ - N/I	.036	26.9	0.7%	1	PARQ - N/I	.050	25.1	0.1%
	2	PMQ - Den	.029	23.5	3.0%	2	PMQ - Den	.054	28.7	5.4%
	<i>Rsq^g = .063 Unique^h = 3.7% Sharedⁱ = 2.6%</i>					<i>Rsq^g = .100 Unique^h = 5.5% Sharedⁱ = 4.5%</i>				
TSI Depression	1	PARQ - N/I	.085	67.9	0.8%	1	PARQ - N/I	.095	50.3	0.3%
	2	PMQ - Den	.030	25.0	3.0%	2	PMQ - Den	.082	47.8	8.2%
	<i>Rsq = .113 Unique = 3.8% Shared = 7.5%</i>					<i>Rsq = .174 Unique = 8.5% Shared = 8.9%</i>				
TSI Anger / Irritability	1	PARQ - N/I	.044	33.9	0.1%	1	PARQ - N/I	.054	27.3	0.0%
	2	PMQ - Den	.030	23.4	3.0%	2	PMQ - Den	.069	37.8	7.5%
	<i>Rsq = .071 Unique = 3.1% Shared = 4.0%</i>					<i>Rsq = .120 Unique = 7.5% Shared = 4.5%</i>				
TSI Intrusive Experiences	1	PARQ - N/I	.089	71.2	1.3%	1	PARQ - N/I	.057	28.8	0.4%
	2	PMQ - Den	.020	16.5	2.0%	2	PMQ - Den	.035	18.4	3.5%
	<i>Rsq = .106 Unique = 3.3% Shared = 7.3%</i>					<i>Rsq = .088 Unique = 3.9% Shared = 4.9%</i>				
TSI Defensive Avoidance	1	PARQ - N/I	.100	81.4	1.2%	1	PARQ - N/I	.048	24.1	0.1%
	2	PMQ - Den	.030	24.9	3.0%	2	PMQ - Den	.045	23.8	4.5%
	<i>Rsq = .128 Unique = 4.2% Shared = 8.6%</i>					<i>Rsq = .093 Unique = 4.6% Shared = 4.7%</i>				
TSI Dissociation	1	PARQ - N/I	.070	55.1	0.5%	1	PARQ - N/I	.067	34.2	0.2%
	2	PMQ - Den	.030	23.9	3.0%	2	PMQ - Den	.085	47.6	8.5%
	<i>Rsq = .097 Unique = 3.5% Shared = 6.2%</i>					<i>Rsq = .148 Unique = 8.7% Shared = 6.1%</i>				
TSI Sexual Concerns	1	PARQ - N/I	.028	17.3	0.0%	1	PARQ - N/I	.077	40.2	0.4%
	2	PMQ - Den	.037	33.4	4.3%	2	PMQ - Den	.054	30.0	5.4%
	<i>Rsq = .063 Unique = 4.3% Shared = 2.0%</i>					<i>Rsq = .128 Unique = 5.8% Shared = 7.0%</i>				
TSI Dysfunctional Sexual Behavior	1	PARQ - N/I	.018	13.2	0.1%	1	PARQ - N/I	.060	30.8	2.0%
	2	PMQ - Den	.011	7.9	1.1%	2	PMQ - Den	.010	5.0	0.9%
	<i>Rsq = .026 Unique = 1.2% Shared = 1.4%</i>					<i>Rsq = .070 Unique = 2.9% Shared = 4.1%</i>				
TSI Impaired Self-Reference	1	PARQ - N/I	.060	46.8	0.3%	1	PARQ - N/I	.079	40.8	0.0%
	2	PMQ - Den	.032	25.9	3.2%	2	PMQ - Den	.124	74.3	13.1%
	<i>Rsq = .090 Unique = 3.5% Shared = 5.5%</i>					<i>Rsq = .199 Unique = 13.1% Shared = 6.8%</i>				
TSI Tension Reduction Behavior	1	PARQ - N/I	.048	37.1	0.3%	1	PARQ - N/I	.077	40.2	0.2%
	2	PMQ - Den	.023	18.2	2.3%	2	PMQ - Den	.068	37.8	6.8%
	<i>Rsq = .069 Unique = 2.6% Shared = 4.3%</i>					<i>Rsq = .142 Unique = 7.0% Shared = 7.2%</i>				
BSI General Severity Index	1	PARQ - N/I	.079	62.6	0.1%	1	PARQ - N/I	.139	77.4	0.6%
	2	PMQ - Den	.058	49.4	5.9%	2	PMQ - Den	.112	71.3	11.2%
	<i>Rsq = .135 Unique = 6.0% Shared = 7.0%</i>					<i>Rsq = .248 Unique = 11.8% Shared = 13.0%</i>				
Beck Depression Inventory	1	PARQ - N/I	.080	63.9	0.3%	1	PARQ - N/I	.088	46.5	0.1%
	2	PMQ - Den	.047	39.3	4.7%	2	PMQ - Den	.100	59.1	10.0%
	<i>Rsq = .125 Unique = 5.0% Shared = 7.5%</i>					<i>Rsq = .185 Unique = 10.1% Shared = 8.4%</i>				

^a PARQ Neglect/Indifference subscale score entered at Step 1; PMQ Denying Emotional Responsiveness subscale score entered at Step 2

^b All females who participated during Part I (N = 733)

^c All males who participated during Part I (N = 481)

^d R square change at each step

^e F statistic change at each step. All F values significant at $p < .0005$

^f Amount of unique variability contributed by each predictor in the final regression equation

^g Adjusted R square for the final equation

^h Combined unique variance contributed by both predictors in the equation

Table 37
Statistics for the Hierarchical Multivariate Regression Analyses of the PARQ
Warmth/Affection Subscale and the PMQ Denying Emotional Responsiveness Subscale
on Measures of Symptom Status ^a

MEASURES	FEMALES ^b					MALES ^c				
	Step	Predictor	ΔRsq^d	ΔF^e	Unique ^f	Step	Predictor	ΔRsq^d	ΔF^e	Unique ^f
TSI Anxious Arousal	1	PARQ - W/A	.024	17.7	0.1%	1	PARQ - W/A	.020	9.8	0.5%
	2	PMQ - Den	.042	32.9	4.2%	2	PMQ - Den	.088	47.0	8.8%
	<i>Rsq^g = .063 Unique^h = 4.3% Sharedⁱ = 2.0%</i>					<i>Rsq^g = .104 Unique^h = 9.3% Sharedⁱ = 1.1%</i>				
TSI Depression	1	PARQ - W/A	.069	54.1	0.3%	1	PARQ - W/A	.093	49.1	0.4%
	2	PMQ - Den	.041	33.9	4.1%	2	PMQ - Den	.085	49.6	8.5%
	<i>Rsq = .108 Unique = 4.4% Shared = 6.4%</i>					<i>Rsq = .175 Unique = 8.9% Shared = 8.6%</i>				
TSI Anger / Irritability	1	PARQ - W/A	.030	22.3	0.0%	1	PARQ - W/A	.040	20.0	0.0%
	2	PMQ - Den	.044	34.4	4.4%	2	PMQ - Den	.083	45.5	8.4%
	<i>Rsq = .071 Unique = 4.4% Shared = 2.7%</i>					<i>Rsq = .120 Unique = 8.4% Shared = 3.6%</i>				
TSI Intrusive Experiences	1	PARQ - W/A	.060	46.9	0.2%	1	PARQ - W/A	.036	17.8	0.0%
	2	PMQ - Den	.037	30.2	3.7%	2	PMQ - Den	.052	27.1	5.2%
	<i>Rsq = .095 Unique = 3.9% Shared = 5.6%</i>					<i>Rsq = .084 Unique = 5.2% Shared = 3.2%</i>				
TSI Defensive Avoidance	1	PARQ - W/A	.071	55.9	0.2%	1	PARQ - W/A	.041	20.4	0.0%
	2	PMQ - Den	.049	40.6	4.9%	2	PMQ - Den	.052	27.2	5.2%
	<i>Rsq = .113 Unique = 5.1% Shared = 6.7%</i>					<i>Rsq = .089 Unique = 5.2% Shared = 3.7%</i>				
TSI Dissociation	1	PARQ - W/A	.045	34.8	0.0%	1	PARQ - W/A	.043	21.6	0.1%
	2	PMQ - Den	.049	39.6	4.9%	2	PMQ - Den	.109	61.6	10.9%
	<i>Rsq = .162 Unique = 4.9% Shared = 11.3%</i>					<i>Rsq = .149 Unique = 11.0% Shared = 3.9%</i>				
TSI Sexual Concerns	1	PARQ - W/A	.016	12.0	0.4%	1	PARQ - W/A	.073	37.4	0.4%
	2	PMQ - Den	.053	41.9	5.3%	2	PMQ - Den	.059	32.5	5.9%
	<i>Rsq = .070 Unique = 5.7% Shared = 1.3%</i>					<i>Rsq = .128 Unique = 6.3% Shared = 6.5%</i>				
TSI Dysfunctional Sexual Behavior	1	PARQ - W/A	.008	5.7	0.1%	1	PARQ - W/A	.034	16.7	0.3%
	2	PMQ - Den	.021	15.9	2.1%	2	PMQ - Den	.020	10.2	2.0%
	<i>Rsq = .026 Unique = 2.2% Shared = 0.4%</i>					<i>Rsq = .050 Unique = 2.3% Shared = 2.7%</i>				
TSI Impaired Self-Reference	1	PARQ - W/A	.042	32.4	0.0%	1	PARQ - W/A	.062	31.6	0.1%
	2	PMQ - Den	.047	37.9	4.7%	2	PMQ - Den	.142	85.0	14.1%
	<i>Rsq = .087 Unique = 4.7% Shared = 4.0%</i>					<i>Rsq = .200 Unique = 14.2% Shared = 5.8%</i>				
TSI Tension Reduction Behavior	1	PARQ - W/A	.025	18.8	0.1%	1	PARQ - W/A	.059	29.8	0.0%
	2	PMQ - Den	.044	34.8	4.5%	2	PMQ - Den	.084	47.0	8.4%
	<i>Rsq = .067 Unique = 4.6% Shared = 2.1%</i>					<i>Rsq = .139 Unique = 8.4% Shared = 5.5%</i>				
BSI General Severity Index	1	PARQ - W/A	.065	50.8	0.0%	1	PARQ - W/A	.098	52.3	0.0%
	2	PMQ - Den	.071	60.1	7.1%	2	PMQ - Den	.147	93.1	14.7%
	<i>Rsq = .134 Unique = 7.1% Shared = 6.3%</i>					<i>Rsq = .242 Unique = 14.7% Shared = 9.5%</i>				
Beck Depression Inventory	1	PARQ - W/A	.079	62.8	0.3%	1	PARQ - W/A	.083	43.2	0.1%
	2	PMQ - Den	.048	40.4	4.8%	2	PMQ - Den	.106	62.4	10.6%
	<i>Rsq = .125 Unique = 5.1% Shared = 7.4%</i>					<i>Rsq = .185 Unique = 10.7% Shared = 7.8%</i>				

^a PARQ Warmth/Affection subscale score entered at Step 1; PMQ Denying Emotional Responsiveness subscale score entered at Step 2

^b All females who participated during Part 1 (N = 733)

^c All males who participated during Part 1 (N = 481)

^d R square change at each step

^e F statistic change at each step. All F values significant at $p < .0005$

^f Amount of unique variability contributed by each predictor in the final regression equation

^g Adjusted R square for the final equation

^h Combined unique variance contributed by both predictors in the equation

participants are presented in Table 38 for all students considered together, in Table 39 for females, and in Table 40 for males.

As indicated, mean scores, standard deviations, and alpha values obtained for this subsample were very similar to those observed for the full sample (see Table 14). *T*-test analyses, using an alpha level of .001, revealed no significant differences between participants' CMQ scores at Part 1 and at Part 2, with the exception of a trivial difference for the Denying Emotional Responsiveness subscale for females (effect size = .12), and the Controlling/Stifling Independence subscale for both genders (effect size = .12). In each case of significant differences, Part 1 scores were higher.

Test-retest reliability values also were high for the total PMQ ($r = .86$ for females and $r = .84$ for males), for the total PAQ ($r = .81$ for females and $r = .73$ for males), and for the SAQ-Parental version ($r = .87$ for females and $r = .96$ for males). Test-retest values for PMQ subscales were moderate to high, and ranged from .55 to .83 for females (average $r = .75$) and from .54 to .87 for males (average $r = .72$).

Stability and Test-Retest Reliability of the Measures of Symptom Status

The TSI and the BDI also were administered to participants at Part 2. Part 1 and Part 2 mean scores, internal consistency reliability coefficients, test-retest correlation coefficients, and *t*-statistics for these measures of symptom status are presented in Table 41 for all of the Part 1 & 2 subsample participants considered together, in Table 42 for females, and in Table 43 for males. As expected, mean values, standard deviations and alpha reliability coefficients were generally consistent with those observed for the entire sample at Part 1 (see Table 23). However, given the nature of these measures, which were designed to assess symptoms experienced during a relatively discrete period of time (*i.e.*, during the past 6 months for the TSI and during the past week for the BDI), responses given four months apart would not be

Table 38
Statistics for the CMQ for Participants in Both Parts^a

CMQ QUESTIONNAIRE / SUBSCALE	ALL PARTICIPANTS ^b							
	PART 1 ^c			PART 2 ^d			Test-Retest ^e	<i>t</i> -test ^f
	α ^e	Mean	(SD)	α	Mean	(SD)	<i>r</i>	<i>t</i>
PMQ TOTAL SCORE	.97	111.36	(33.41)	.97	108.98	(34.75)	.85	3.19
<i>Subscales:</i>								
Controlling/Stifling Independence	.84	13.07	(4.85)	.85	12.48	(4.79)	.81	4.88
Corrupting	.59	6.74	(1.52)	.60	6.80	(1.74)	.55	-.86
Degrading	.89	9.75	(4.36)	.91	9.47	(4.36)	.81	2.46
Denying Emotional Responsiveness	.87	10.77	(4.64)	.89	10.45	(4.67)	.76	2.47
Exploiting (Nonsexual)	.74	8.65	(3.02)	.77	8.43	(3.14)	.70	2.26
Isolating	.86	10.00	(4.32)	.88	9.95	(4.40)	.77	.44
Physical Neglect	.66	6.98	(1.95)	.68	6.85	(1.86)	.61	1.87
Physical Terrorism	.80	7.73	(2.72)	.84	7.70	(2.96)	.73	.26
Rejecting	.90	9.06	(4.15)	.91	8.86	(4.19)	.82	1.99
Unreliable/Inconsistent Care	.81	10.36	(3.89)	.84	10.08	(4.05)	.76	2.42
Verbal Terrorism	.83	10.79	(4.10)	.87	10.44	(4.19)	.81	3.34
Witness to Violence	.74	7.47	(2.41)	.75	7.46	(2.41)	.66	.08
PAQ TOTAL SCORE	.86	18.90	(4.76)	.89	18.95	(5.26)	.77	-.33
<i>Subscales:</i>								
Physical Abuse	.87	12.67	(4.19)	.89	12.63	(4.40)	.78	.33
Severe Physical Abuse	.67	6.23	(1.00)	.65	6.32	(1.22)	.58	-1.89
SAQ-PARENTAL TOTAL SCORE	.98	22.80	(5.46)	.98	22.73	(4.82)	.89	.61
<i>Subscales:</i>								
Sexual Harassment	.94	6.30	(1.70)	.96	6.26	(1.65)	.76	.84
Noncontact Sexual Abuse	.92	6.19	(1.42)	.88	6.15	(1.09)	.85	1.12
Contact Sexual Abuse	.98	10.31	(2.56)	.96	10.33	(2.31)	.92	-.28
SAQ-NONPARENTAL TOTAL SCORE	.96	30.79	(13.28)	n/a	n/a	n/a	n/a	n/a
<i>Subscales:</i>								
Sexual Harassment	.95	9.78	(5.10)	n/a	n/a	n/a	n/a	n/a
Noncontact Sexual Abuse	.78	6.96	(2.18)	n/a	n/a	n/a	n/a	n/a
Contact Sexual Abuse	.96	14.05	(7.20)	n/a	n/a	n/a	n/a	n/a

^a Subsample of Part 1 participants who also completed Part 2 ^b N = 604

^c Participants' scores at Time 1

^d Participants' scores at Time 2

^e Alpha internal consistency reliability coefficient

^f Correlation between Time 1 and Time 2 means

^g *t* statistic comparing Part 1 and Part 2 scores. Degrees of freedom = 603. Bold italicized values are significant at $p < .001$.

Table 39
Statistics for the CMQ for Participants in Both Parts ^a

CMQ QUESTIONNAIRE / SUBSCALE	FEMALE PARTICIPANTS ^b							
	PART 1 ^c			PART 2 ^d			Test-Retest ^f	t-test ^g
	α ^e	Mean	(SD)	α	Mean	(SD)	r	t
PMQ TOTAL SCORE	.97	109.94	(35.46)	.98	107.18	(36.56)	.86	2.81
<i>Subscales:</i>								
Controlling/Stifling Independence	.85	13.14	(5.05)	.86	12.53	(5.01)	.82	3.83
Corrupting	.51	6.50	(1.27)	.56	6.56	(1.53)	.55	-.77
Degrading	.91	9.52	(4.63)	.93	9.24	(4.53)	.82	1.93
Denying Emotional Responsiveness	.88	10.68	(4.89)	.91	10.10	(4.80)	.78	3.44
Exploiting (Nonsexual)	.73	8.28	(2.87)	.78	8.15	(3.11)	.70	1.10
Isolating	.88	9.98	(4.60)	.89	9.92	(4.60)	.80	.43
Physical Neglect	.62	6.91	(1.90)	.65	6.87	(1.92)	.61	.42
Physical Terrorism	.81	7.60	(2.80)	.85	7.57	(3.02)	.74	.35
Rejecting	.91	8.98	(4.44)	.92	8.71	(4.35)	.83	1.96
Unreliable/Inconsistent Care	.83	10.27	(4.14)	.86	9.88	(4.16)	.79	2.81
Verbal Terrorism	.85	10.60	(4.29)	.89	10.25	(4.34)	.83	2.56
Witness to Violence	.77	7.48	(2.60)	.77	7.41	(2.46)	.70	.65
PAQ TOTAL SCORE	.88	18.62	(5.00)	.91	18.66	(5.62)	.81	-.19
<i>Subscales:</i>								
Physical Abuse	.89	12.41	(4.40)	.91	12.36	(4.68)	.80	.30
Severe Physical Abuse	.67	6.21	(1.06)	.77	6.30	(1.36)	.56	-1.39
SAQ-PARENTAL TOTAL SCORE	.99	22.98	(6.52)	.98	22.89	(5.75)	.87	.51
<i>Subscales:</i>								
Sexual Harassment	.97	6.34	(1.97)	.97	6.32	(2.01)	.75	.33
Noncontact Sexual Abuse	.94	6.23	(1.71)	.91	6.18	(1.29)	.86	1.11
Contact Sexual Abuse	.98	10.40	(3.07)	.97	10.40	(2.73)	.91	.12
SAQ-NONPARENTAL TOTAL SCORE	.96	31.30	(13.68)	n/a	n/a	n/a	n/a	n/a
<i>Subscales:</i>								
Sexual Harassment	.95	10.03	(5.23)	n/a	n/a	n/a	n/a	n/a
Noncontact Sexual Abuse	.79	6.90	(2.17)	n/a	n/a	n/a	n/a	n/a
Contact Sexual Abuse	.96	14.37	(7.74)	n/a	n/a	n/a	n/a	n/a

^a Subsample of Part 1 participants who also completed Part 2 ^b N = 364

^c Participants' scores at Time 1

^d Participants' scores at Time 2

^e Alpha internal consistency reliability coefficient

^f Correlation between Time 1 and Time 2 means

^g t statistic comparing Part 1 and Part 2 scores. Degrees of freedom = 363. Bold italicized values are significant at $p < .001$.

Table 40
Statistics for the CMQ for Participants in Both Parts^a

CMQ QUESTIONNAIRE / SUBSCALE	MALE PARTICIPANTS ^b							
	PART 1 ^c			PART 2 ^d			Test-Retest ^e	t-test ^f
	α ^e	Mean	(SD)	α	Mean	(SD)	r	t
PMQ TOTAL SCORE	.96	113.51	(29.97)	.97	111.70	(31.67)	.84	1.58
<i>Subscales:</i>								
Controlling/Stifling Independence	.84	12.97	(4.54)	.84	12.40	(4.44)	.79	3.02
Corrupting	.60	7.11	(1.79)	.60	7.16	(1.96)	.54	-.45
Degrading	.85	10.09	(3.89)	.87	9.83	(4.06)	.78	1.53
Denying Emotional Responsiveness	.87	10.91	(4.23)	.87	10.98	(4.42)	.74	-.35
Exploiting (Nonsexual)	.74	9.21	(3.17)	.76	8.86	(3.14)	.69	2.20
Isolating	.83	10.03	(3.88)	.86	9.99	(4.08)	.73	.18
Physical Neglect	.70	7.09	(2.02)	.73	6.83	(1.76)	.66	2.58
Physical Terrorism	.77	7.91	(2.60)	.82	7.91	(2.86)	.73	-.03
Rejecting	.88	9.19	(3.69)	.89	9.08	(3.93)	.87	.69
Unreliable/Inconsistent Care	.78	10.48	(3.49)	.81	10.40	(3.87)	.70	.45
Verbal Terrorism	.80	11.08	(3.81)	.84	10.73	(3.95)	.78	2.14
Witness to Violence	.67	7.45	(2.09)	.70	7.54	(2.33)	.61	-.73
PAQ TOTAL SCORE	.83	19.32	(4.35)	.83	19.38	(4.65)	.73	-.31
<i>Subscales:</i>								
Physical Abuse	.83	13.05	(3.84)	.85	13.03	(4.16)	.77	.14
Severe Physical Abuse	.60	6.27	(.91)	.58	6.36	(.99)	.54	-1.29
SAQ-P TOTAL SCORE	.95	22.53	(3.28)	.95	22.50	(2.89)	.96	.45
<i>Subscales:</i>								
Sexual Harassment	.85	6.23	(1.18)	.79	6.16	(.85)	.88	1.67
Noncontact Sexual Abuse	.78	6.12	(.80)	.70	6.11	(.71)	.79	.26
Contact Sexual Abuse	.95	10.19	(1.49)	.92	10.23	(1.46)	.96	-1.45
SAQ-NONPARENTAL TOTAL SCORE	.96	30.02	(12.65)	n/a	n/a	n/a	n/a	n/a
<i>Subscales:</i>								
Sexual Harassment	.95	9.38	(4.90)	n/a	n/a	n/a	n/a	n/a
Noncontact Sexual Abuse	.77	7.05	(2.20)	n/a	n/a	n/a	n/a	n/a
Contact Sexual Abuse	.95	13.58	(6.56)	n/a	n/a	n/a	n/a	n/a

^a Subsample of Part 1 participants who also completed Part 2 ^b N = 240

^c Participants' scores at Time 1

^d Participants' scores at Time 2

^e Alpha internal consistency reliability coefficient

^f Correlation between Time 1 and Time 2 means

^g t statistic comparing Part 1 and Part 2 scores. Degrees of freedom = 239. Bold italicized values are significant at $p < .001$.

expected to be particularly highly correlated, especially relative to a measure requiring recall of fixed experiences and events that occurred in the past, such as the CMQ. Thus, as might be expected, at an alpha level of .001, significant differences were observed for both genders between Part 1 and Part 2 scores for all TSI clinical scales, although no significant differences were observed for the BDI. Effect sizes for the TSI for both genders combined ranged from .17 to .32, with an average of .25. In all cases, Part 1 symptom scores were higher than Part 2 scores. This may have reflected a somewhat higher degree of general distress associated with the beginning of the academic year, which might be expected, especially for the majority of students who were attending university for the first time.

Test-retest reliability values for the TSI and the BDI indicate reasonably good stability of responses provided at Part 1 and at Part 2, despite the relatively long time lag. For the TSI subscales, the test-retest values ranged from .62 to .72 for females (average $r = .69$) and from .56 to .73 for males (average $r = .70$). For the BDI subscales, the test-retest correlation was .67 for females and .55 for males.

Potential Influence of Symptom Status on Reports of Childhood Maltreatment

The test-retest design of the present study also allowed examination of whether symptom status might have affected participants' responses to items assessing childhood maltreatment. To inform this question, a series of hierarchical multiple regression analyses were conducted in which, for each subscale of the TSI and for the BDI, the total PMQ score obtained at Part 1 was entered first into an equation predicting the total PMQ score at Time 2. At the next two steps, the Time 1 and Time 2 scores, respectively, for the specific symptom measure under consideration were entered. Thus the third step assessed the ability for Time 2 symptom levels to predict Time 2 psychological maltreatment report scores, controlling for the influences of Time 1 psychological maltreatment report scores and Time 1 symptom levels.

Table 41
Statistics for the Measures of Symptom Status for Participants in Both Parts ^a

MEASURE	ALL PARTICIPANTS ^b							
	PART 1 ^c			PART 2 ^d			Test-Retest ^e	t-test ^f
	α ^g	Mean	(SD)	α	Mean	(SD)	r	t
TRAUMA SYMPTOM INVENTORY								
Anxious Arousal	.80	10.02	(4.71)	.82	8.54	(4.52)	.64	9.30
Depression	.90	7.98	(5.77)	.89	6.58	(5.00)	.71	8.31
Anger/Irritability	.90	11.90	(6.58)	.90	10.26	(6.01)	.69	8.03
Intrusive Experiences	.87	6.62	(5.39)	.87	5.59	(4.63)	.68	6.13
Defensive Avoidance	.88	8.83	(6.38)	.90	7.22	(5.73)	.65	7.69
Dissociation	.81	8.34	(5.04)	.80	6.92	(4.34)	.65	8.79
Sexual Concerns	.81	6.58	(5.49)	.82	5.23	(4.86)	.64	7.53
Dysfunctional Sexual Behavior	.82	4.53	(4.84)	.80	3.76	(4.22)	.67	5.13
Impaired Self-Reference	.84	9.96	(5.67)	.85	8.56	(5.30)	.70	8.12
Tension Reduction Behavior	.71	4.93	(3.84)	.70	4.14	(3.31)	.64	6.33
BECK DEPRESSION INVENTORY	.86	8.00	(6.73)	.88	7.69	(7.03)	.63	1.28

^a Subsample of Part 1 participants who also completed Part 2

^b N = 604

^c Participants' scores at Time 1

^d Participants' scores at Time 2

^e Alpha internal consistency reliability coefficient

^f Correlation between Time 1 and Time 2 means

^g t statistic comparing Part 1 and Part 2 scores. Degrees of freedom = 603. Bold italicized values are significant at $p < .001$.

Table 42
Statistics for the Measures of Symptom Status for Participants in Both Parts^a

MEASURE	FEMALES ^b							
	PART 1 ^c			PART 2 ^d			Test-Retest ^f	<i>t</i> -test ^g
	α^e	Mean	(SD)	α	Mean	(SD)	<i>r</i>	<i>t</i>
TRAUMA SYMPTOM INVENTORY								
Anxious Arousal	.80	10.37	(4.68)	.83	9.18	(4.74)	.69	<i>6.05</i>
Depression	.90	8.60	(5.75)	.90	7.00	(5.02)	.69	<i>7.16</i>
Anger/Irritability	.91	12.13	(6.79)	.91	10.71	(6.20)	.72	<i>5.50</i>
Intrusive Experiences	.87	6.89	(5.44)	.88	5.84	(5.00)	.72	<i>5.07</i>
Defensive Avoidance	.88	9.20	(6.42)	.90	7.52	(6.08)	.67	<i>6.26</i>
Dissociation	.81	8.40	(5.06)	.82	6.96	(4.40)	.71	<i>7.51</i>
Sexual Concerns	.82	6.11	(5.44)	.84	4.68	(4.87)	.62	<i>6.03</i>
Dysfunctional Sexual Behavior	.82	4.18	(4.68)	.80	3.44	(4.06)	.67	<i>3.92</i>
Impaired Self-Reference	.83	10.05	(5.53)	.85	8.79	(5.41)	.71	<i>5.73</i>
Tension Reduction Behavior	.71	4.82	(3.79)	.69	4.18	(3.30)	.66	<i>4.15</i>
BECK DEPRESSION INVENTORY	.87	8.35	(6.97)	.88	8.16	(7.30)	.67	<i>.61</i>

^a Subsample of Part 1 participants who also completed Part 2

^b *N* = 364

^c Participants' scores at Time 1

^d Participants' scores at Time 2

^e Alpha internal consistency reliability coefficient

^f Correlation between Time 1 and Time 2 means

^g *t* statistic comparing Part 1 and Part 2 scores. Degrees of freedom = 363. Bold italicized values are significant at *p* < .001.

Table 43
Statistics for the Measures of Symptom Status for Participants in Both Parts^a

MEASURE	MALES ^b							
	PART 1 ^c			PART 2 ^d			Test-Retest ^e	<i>t</i> -test ^f
	α ^g	Mean	(SD)	α	Mean	(SD)	<i>r</i>	<i>t</i>
TRAUMA SYMPTOM INVENTORY								
Anxious Arousal	.79	9.49	(4.71)	.76	7.57	(3.99)	.56	<i>7.24</i>
Depression	.90	7.03	(5.68)	.88	5.94	(4.88)	.73	<i>4.32</i>
Anger/Irritability	.87	11.55	(6.23)	.90	9.58	(5.66)	.63	<i>5.95</i>
Intrusive Experiences	.87	6.20	(5.31)	.85	5.20	(4.28)	.60	<i>3.52</i>
Defensive Avoidance	.89	8.27	(6.28)	.88	6.77	(5.13)	.61	<i>4.48</i>
Dissociation	.80	8.23	(5.02)	.76	6.86	(4.10)	.56	<i>4.87</i>
Sexual Concerns	.80	7.29	(5.49)	.77	6.07	(4.73)	.67	<i>4.50</i>
Dysfunctional Sexual Behavior	.82	5.06	(5.04)	.81	4.23	(4.39)	.67	<i>3.31</i>
Impaired Self-Reference	.84	9.83	(5.89)	.84	8.30	(5.16)	.70	<i>5.80</i>
Tension Reduction Behavior	.70	5.10	(3.91)	.72	4.07	(3.33)	.60	<i>4.87</i>
BECK DEPRESSION INVENTORY	.84	7.46	(6.32)	.87	6.97	(6.55)	.55	1.25

^a Subsample of Part 1 participants who also completed Part 2

^b *N* = 245

^c Participants' scores at Time 1

^d Participants' scores at Time 2

^e Alpha internal consistency reliability coefficient

^f Correlation between Time 1 and Time 2 means

^g *t* statistic comparing Part 1 and Part 2 scores. Degrees of freedom = 239. Bold italicized values are significant at *p* < .001.

A second series of analyses followed, in which the total PAQ score was utilized in the place of the PMQ as a measure of maltreatment. These analyses were not repeated for the SAQ because the SAQ-Nonparental version was not administered in Part 2 of the study, and it was determined that the use of the SAQ-Parental version may result in unreliable results, given the relatively low levels of positive endorsement of Parental SAQ items. result in unreliable results, given the relatively low levels of positive endorsement of Parental SAQ items.

Results for analyses that included the PMQ are presented in Table 44. For males, symptoms at Part 1 and at Part 2 failed to contribute additional significant unique variability for any of the symptom measures. For females, symptoms at Part 2 contributed additional significant unique variability for seven of the TSI clinical scales, although in each case, the amount of unique variability contributed by Part 2 symptoms was negligible, ranging from 1.4% to 1.9%.

Similar results were obtained for analyses that included the PAQ, as presented in Table 45. As indicated, symptoms at Part 1 and at Part 2 failed to contribute additional unique variability for any of the symptom measures for males. For females, symptoms at Part 2 again contributed unique variability for seven TSI clinical scales. For these, as in the case with the PMQ, the amount of unique variability contributed by Part 2 symptoms was negligible (i.e., 0.9% to 1.8%).

Table 44
Statistics for the Multiple Regression Analyses^a of Self-Reported Psychological Maltreatment at Part 1 and Symptom Status at Times 1 and 2 Predicting Self-Reported Psychological Maltreatment at Part 2

SYMPTOM MEASURES	FEMALES ^b				MALES ^c			
	Step	Predictor	ΔRsq^d	ΔF^e	Step	Predictor	ΔRsq^d	ΔF^e
TSI Anxious Arousal	1	PMQ (Part 1)	.748	1074.1 **	1	PMQ (Part 1)	.700	554.1 **
	2	TSI-AA (Part 1)	.000	0.6 ns	2	TSI-AA (Part 1)	.003	2.4 ns
	3	TSI-AA (Part 2)	.014	21.5 **	3	TSI-AA (Part 2)	.007	5.4 ns
TSI Depression	1	PMQ (Part 1)	.748	1074.1 **	1	PMQ (Part 1)	.700	554.1 **
	2	TSI-Dep (Part 1)	.000	0.2 ns	2	TSI-Dep (Part 1)	.000	0.1 ns
	3	TSI-Dep (Part 2)	.012	18.4 **	3	TSI-Dep (Part 2)	.003	2.2 ns
TSI Anger / Irritability	1	PMQ (Part 1)	.748	1074.1 **	1	PMQ (Part 1)	.700	554.1 **
	2	TSI-AI (Part 1)	.000	0.3 ns	2	TSI-AI (Part 1)	.000	0.2 ns
	3	TSI-AI (Part 2)	.015	22.4 **	3	TSI-AI (Part 2)	.001	1.0 ns
TSI Intrusive Experiences	1	PMQ (Part 1)	.748	1074.1 **	1	PMQ (Part 1)	.700	554.1 **
	2	TSI-IE (Part 1)	.000	0.1 ns	2	TSI-IE (Part 1)	.003	2.3 ns
	3	TSI-IE (Part 2)	.014	21.7 **	3	TSI-IE (Part 2)	.012	10.2 **
TSI Defensive Avoidance	1	PMQ (Part 1)	.748	1074.1 **	1	PMQ (Part 1)	.700	554.1 **
	2	TSI-DA (Part 1)	.000	0.6 ns	2	TSI-DA (Part 1)	.000	0.0 ns
	3	TSI-DA (Part 2)	.018	27.6 **	3	TSI-DA (Part 2)	.007	5.9 ns
TSI Dissociation	1	PMQ (Part 1)	.748	1074.1 **	1	PMQ (Part 1)	.700	554.1 **
	2	TSI-Dis (Part 1)	.000	0.0 ns	2	TSI-Dis (Part 1)	.000	0.1 ns
	3	TSI-Dis (Part 2)	.006	9.1 ns	3	TSI-Dis (Part 2)	.008	6.5 ns
TSI Sexual Concerns	1	PMQ (Part 1)	.748	1074.1 **	1	PMQ (Part 1)	.700	554.1 **
	2	TSI-SC (Part 1)	.001	0.9 ns	2	TSI-SC (Part 1)	.003	2.0 ns
	3	TSI-SC (Part 2)	.007	9.9 ns	3	TSI-SC (Part 2)	.002	2.0 ns
TSI Dysfunctional Sexual Behavior	1	PMQ (Part 1)	.748	1074.1 **	1	PMQ (Part 1)	.700	554.1 **
	2	TSI-DSB (Part 1)	.000	0.4 ns	2	TSI-DSB (Part 1)	.000	0.4 ns
	3	TSI-DSB (Part 2)	.009	13.8 **	3	TSI-DSB (Part 2)	.000	0.1 ns
TSI Impaired Self-Reference	1	PMQ (Part 1)	.748	1074.1 **	1	PMQ (Part 1)	.700	554.1 **
	2	TSI-ISR (Part 1)	.000	0.0 ns	2	TSI-ISR (Part 1)	.000	0.3 ns
	3	TSI-ISR (Part 2)	.006	9.5 ns	3	TSI-ISR (Part 2)	.002	1.7 ns
TSI Tension Reduction Behavior	1	PMQ (Part 1)	.748	1074.1 **	1	PMQ (Part 1)	.700	554.1 **
	2	TSI-TRB (Part 1)	.001	1.8 ns	2	TSI-TRB (Part 1)	.004	3.5 ns
	3	TSI-TRB (Part 2)	.015	24.9 **	3	TSI-TRB (Part 2)	.003	2.1 ns
Beck Depression Inventory	1	PMQ (Part 1)	.748	1074.1 **	1	PMQ (Part 1)	.700	554.1 **
	2	BDI (Part 1)	.000	0.4 ns	2	TSI-BDI (Part 1)	.007	5.6 ns
	3	BDI (Part 2)	.014	22.3 **	3	TSI-BDI (Part 2)	.010	8.1 ns

** $p < .000$ * $p < .001$

^a Variables entered in 3 steps: (i) entry of total PMQ score from Part 1; (ii) entry of symptom measure at Part 1; and (iii) entry of symptom measure at Part 2.

^b All females who participated during Part 1 ($N = 364$)

^c All males who participated during Part 1 ($N = 240$)

^d R square change at each step

^e F statistic change at each step. Considered significant at $p < .001$

Table 45

Statistics for the Multiple Regression Analyses^a of Self-Reported Physical Abuse at Part 1 and Symptom Status at Times 1 and 2 Predicting Self-Reported Physical Abuse at Part 2

SYMPTOM MEASURES	FEMALES ^b				MALES ^c			
	Step	Predictor	ΔRsq^d	ΔF^e	Step	Predictor	ΔRsq^d	ΔF^e
TSI Anxious Arousal	1	PAQ (Part 1)	.530	407.7 ***	1	PAQ (Part 1)	.531	269.5 ***
	2	TSI-AA (Part 1)	.002	1.7 ns	2	TSI-AA (Part 1)	.000	0.0 ns
	3	TSI-AA (Part 2)	.011	5.4 ns	3	TSI-AA (Part 2)	.011	5.4 ns
TSI Depression	1	PAQ (Part 1)	.530	407.7 ***	1	PAQ (Part 1)	.531	269.5 ***
	2	TSI-Dep (Part 1)	.001	0.8 ns	2	TSI-Dep (Part 1)	.006	3.2 ns
	3	TSI-Dep (Part 2)	.013	9.9 ns	3	TSI-Dep (Part 2)	.003	1.8 ns
TSI Anger / Irritability	1	PAQ (Part 1)	.530	407.7 ***	1	PAQ (Part 1)	.531	269.5 ***
	2	TSI-AI (Part 1)	.006	4.6 ns	2	TSI-AI (Part 1)	.005	2.4 ns
	3	TSI-AI (Part 2)	.014	11.5 **	3	TSI-AI (Part 2)	.002	0.9 ns
TSI Intrusive Experiences	1	PAQ (Part 1)	.530	407.7 ***	1	PAQ (Part 1)	.531	269.5 ***
	2	TSI-IE (Part 1)	.001	0.9 ns	2	TSI-IE (Part 1)	.000	0.0 ns
	3	TSI-IE (Part 2)	.018	14.5 ***	3	TSI-IE (Part 2)	.013	6.5 ns
TSI Defensive Avoidance	1	PAQ (Part 1)	.530	407.7 ***	1	PAQ (Part 1)	.531	269.5 ***
	2	TSI-DA (Part 1)	.005	3.9 ns	2	TSI-DA (Part 1)	.006	3.1 ns
	3	TSI-DA (Part 2)	.015	12.2 **	3	TSI-DA (Part 2)	.000	0.1 ns
TSI Dissociation	1	PAQ (Part 1)	.530	407.7 ***	1	PAQ (Part 1)	.531	269.5 ***
	2	TSI-Dis (Part 1)	.000	0.3 ns	2	TSI-Dis (Part 1)	.001	0.3 ns
	3	TSI-Dis (Part 2)	.006	4.3 ns	3	TSI-Dis (Part 2)	.012	6.0 ns
TSI Sexual Concerns	1	PAQ (Part 1)	.530	407.7 ***	1	PAQ (Part 1)	.531	269.5 ***
	2	TSI-SC (Part 1)	.000	0.2 ns	2	TSI-SC (Part 1)	.002	0.8 ns
	3	TSI-SC (Part 2)	.004	3.1 ns	3	TSI-SC (Part 2)	.004	2.0 ns
TSI Dysfunctional Sexual Behavior	1	PAQ (Part 1)	.530	407.7 ***	1	PAQ (Part 1)	.531	269.5 ***
	2	TSI-DSB (Part 1)	.000	0.1 ns	2	TSI-DSB (Part 1)	.001	0.7 ns
	3	TSI-DSB (Part 2)	.008	5.9 ns	3	TSI-DSB (Part 2)	.008	4.0 ns
TSI Impaired Self-Reference	1	PAQ (Part 1)	.530	407.7 ***	1	PAQ (Part 1)	.531	269.5 ***
	2	TSI-ISR (Part 1)	.000	0.3 ns	2	TSI-ISR (Part 1)	.006	3.1 ns
	3	TSI-ISR (Part 2)	.009	7.2 ns	3	TSI-ISR (Part 2)	.004	2.3 ns
TSI Tension Reduction Behavior	1	PAQ (Part 1)	.530	407.7 ***	1	PAQ (Part 1)	.531	269.5 ***
	2	TSI-TRB (Part 1)	.000	0.2 ns	2	TSI-TRB (Part 1)	.006	2.9 ns
	3	TSI-TRB (Part 2)	.019	15.6 ***	3	TSI-TRB (Part 2)	.004	2.3 ns
Beck Depression Inventory	1	PAQ (Part 1)	.530	407.7 ***	1	PAQ (Part 1)	.531	269.5 ***
	2	BDI (Part 1)	.004	3.1 ns	2	TSI-BDI (Part 1)	.001	0.6 ns
	3	BDI (Part 2)	.013	10.1 ns	3	TSI-BDI (Part 2)	.001	0.8 ns

*** $p < .000$ ** $p < .001$

^a Variables entered in 3 steps: (i) entry of total PAQ score from Part 1; (ii) entry of symptom measure at Part 1; and (iii) entry of symptom measure at Part 2.

^b All females who participated during Part 1 ($N = 364$)

^c All males who participated during Part 1 ($N = 240$)

^d R square change at each step

^e F statistic change at each step. Considered significant at $p \leq .001$

DISCUSSION

As discussed in detail in earlier sections, it has long been the general impression of many mental health professionals and members of the general public that psychological maltreatment is the most prevalent and potentially most damaging form of child maltreatment. Yet, largely due to the slow progress in defining and identifying psychological maltreatment, few data are available in this regard, relative to a burgeoning research literature pointing to initial and long-term negative mental health consequences of sexual abuse and physical abuse.

The Psychological Maltreatment Questionnaire (PMQ) was created primarily to address the lack of a comprehensive retrospective-report measure of psychological maltreatment that could be used to contribute to the research literature concerning prevalence and potential long-term consequences of psychological maltreatment. Comprehensive measures of physical abuse, via the Physical Abuse Questionnaire (PAQ) and sexual abuse, via the Sexual Abuse Questionnaire (SAQ) were created to complement the PMQ, with these three questionnaires together comprising the Childhood Maltreatment Questionnaire (CMQ) (Demaré, 1992, 1993a, 1993b). Initial research with the CMQ provided preliminary evidence that the instrument is a reliable and valid measure of maltreatment, although the need for additional research in this regard was indicated.

Thus, the present study was undertaken to replicate and extend initial reliability and validity findings with the CMQ/PMQ and to more broadly examine relationships among self-reported childhood maltreatment experiences and psychological symptom status in adulthood. The test-retest design of the design also afforded the opportunity to examine stability of maltreatment reports over time, and to determine what influence one's symptom status might have on the concordance of these reports over time.

Several specific hypotheses were advanced for this study, based both upon theory and upon previous research findings, including those from initial research with the CMQ during its creation. The major findings from the present study, particularly as they pertain to these hypotheses, are discussed in turn.

Prevalence of Maltreatment

Prevalence rates of maltreatment assessed in research contexts are unequivocally higher than official rates garnered from child protection service (CPS) reports for several reasons, most notably that CPS statistics are biased by under-reporting (*e.g.*, Daro & McCurdy, 1991). Yet, maltreatment prevalence rates also have been found to vary widely depending upon the method of assessment, such as the types and numbers of questions asked (*e.g.*, Peters *et al.*, 1986). All CMQ scales were created using multiple items of specific behaviors to define the various domains of maltreatment assessed, as this method of assessment is considered to have several advantages over approaches that utilize few (or in some cases single) general questions. Typically, whether in interview or in questionnaire format, self-reports of maltreatment are higher when assessed through the use of multiple specific questions (Peters *et al.*, 1986). In part, this is because multiple specific questions afford respondents more time, opportunity, and specific cues to recall experiences or perhaps even gather courage to reveal embarrassing ones. In addition, such an approach simply describes behaviors and avoids labels such as “abuse,” thus removing from respondents the need to decide for themselves whether the behaviors they experienced constitute maltreatment. This is a particularly important consideration, given the resistance by many individuals to think about their personal experiences in terms of highly charged labels such as “abuse” or “molestation” (Peters *et al.*, 1986).

The additional advantage of the multiple specific question approach, especially when combined with a varying frequency response format (as opposed to yes/no), is

that the definition applied to maltreatment can be manipulated by the investigator *ex post facto*, perhaps to facilitate comparison with other research findings, by the selection of particular subsets and frequencies of behaviors reported. Finally, assessing a wide range of parental behaviors, such as those reflected in the PMQ in particular, is in line with recommendations that, in early stages of investigation, it is advantageous to explore as many subforms of maltreatment as are theoretically relevant (*e.g.*, McGee & Wolfe, 1991a).

Although predictions regarding the prevalence of psychological maltreatment were not included in the formal hypotheses for this study, psychological maltreatment clearly was expected to be reported more frequently than physical abuse and sexual abuse, consistent with earlier findings and with the general perception that psychological maltreatment is more pervasive in our society than are these other forms. However, as earlier discussion has made clear, any consideration of the prevalence of maltreatment must take into account the point at which a behavior toward a child ceases to be “acceptable” or “tolerable” and meets a definition of maltreatment. For qualitatively different behaviors and for different observers, that point can vary.

Unfortunately, there has been little consensus historically among clinicians, researchers, legislators, and the public about which specific parental behaviors constitute child maltreatment and, equally important, how frequently these behaviors must occur in order to be classified as maltreatment (*e.g.*, Giovannoni, 1991b). 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 (*e.g.*, Berliner & Elliott, 1996). 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). However, agreement that sexual abuse has occurred has been somewhat less easy to obtain when

considering sexual behavior on the part of an adult wherein the child is not physically touched (for example, exposing a child to pornography or making sexual comments about her or him). In part, this is because of difficulties both in establishing evidence that the event has occurred and intention of the perpetrator.

Agreement on definitions of maltreatment has been comparatively more difficult to obtain when considering physical abuse. Throughout history, physically brutal treatment of children has been commonplace (*e.g.*, Zigler & Hall, 1991). Even in recent times, violent treatment of children has been tolerated widely in the form of corporal punishment (*e.g.*, spanking), even in institutional settings such as schools. In fact, since the flag was raised in the 1960s with respect to the “battered child syndrome” (Kempe, Silverman, Steele, Droegemueller, & Silver, 1962), the task of determining when physical abuse has occurred has often been one of determining the point at which punishment ends (*i.e.*, the behavior is reasonable and justified) and maltreatment begins (*i.e.*, the punishment is excessive).

Such a task becomes particularly onerous when determining whether psychological maltreatment has occurred. Compared with sexual and physical forms of abuse, psychological maltreatment can be considerably more insidious, consisting of more frequent and subtle negative behaviors occurring over longer periods of time and, to complicate matters, it consists of acts both of commission and omission. Objective evidence that psychological maltreatment has occurred, even in extreme forms, is often very difficult to obtain and, further, it is thought to co-occur with other major forms of maltreatment in such a way that it is considered to be the core component of physical abuse and sexual abuse (*e.g.*, Hart *et al.*, 1987; Hart *et al.*, 1998; Navarre, 1987). For example, psychological maltreatment can quite readily occur without concomitant physical abuse or sexual abuse. However, it would be difficult to imagine physical abuse or sexual abuse occurring without either concomitant explicit psychological

maltreatment (*e.g.*, verbal threats, degrading comments) or implicit communication of parental rejection, degrading, controlling, or exploiting.

Because of the diversity in definitions used in maltreatment research, detailed frequency data were provided in the present study for the multiple specific behaviors representing the various forms and subforms of maltreatment. This approach allows flexibility in manipulating definitions, based upon inclusion or exclusion of particular behaviors, as well as in the establishment of different cut-off points with respect to the frequency of self-reported behaviors comprising the scales. By considering the maltreatment variables in most of the multivariate analyses as continuous rather than dichotomous, furthermore, an arbitrary decision about which participants should be considered maltreated and which should not was generally avoided (*e.g.*, McGee & Wolfe, 1991a). 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 participants experienced certain parental behaviors during childhood, such that maltreatment might be considered to have occurred. Because of the qualitative differences among the various broad forms of maltreatment, a different level of frequency was chosen for each at which participants were considered to have been maltreated.

Sexual abuse

It is well-accepted that sexual abuse has occurred when even a single instance of sexual contact, ranging from fondling of genitals to sexual intercourse, takes place between a parent and child or between a nonparent adult or other older person and a child (*e.g.*, Berliner & Elliott, 1996; Finkelhor, 1979; Ryan, 1991). In the present study, the definition chosen for parental sexual abuse consisted simply of experiences of

any of the behaviors comprising the SAQ, prior to age 18, as perpetrated by a parental figure. In the acknowledgment that subtle or coercive sexual experiences can be initiated by an older person, such as a casual acquaintance or even a peer, and can still meet the definition of abuse regardless of whether the child's consent might have been given, the definition for nonparental sexual abuse also included such experiences. Thus, respondents endorsed items either if they clearly did not want the behavior to occur, or in cases where their consent may have been given or was ambiguous, they were asked to endorse the item if the other person was older than them by 5 or more years. This definition is in line with those used by other researchers (*e.g.*, Russell, 1983, Wyatt, 1985). In addition, for both parental and nonparental sexual abuse, contact and noncontact forms were assessed separately, allowing one to vary the definition by including or excluding noncontact behaviors.

Using these criteria for assessing sexual abuse should yield prevalence rates that are similar to those discovered by others using similar definitions. As might be expected, the prevalence of parental contact sexual abuse was quite low with this sample, at 4.4% for females and 3.5% for males. Yet, when noncontact forms were included, this rate reached 10.5% for females and 12.1% for males. These rates are equivalent to those obtained in the earlier study with the CMQ (Demaré, 1993a, 1993b). Unfortunately, comparison of these findings with those of studies that used alternative measures to assess sexual abuse are difficult to make, as sexual abuse is rarely assessed retrospectively in a manner that facilitates the reporting of parental and nonparental rates separately.

However, comparisons are facilitated when parental and nonparental forms of sexual abuse are combined. In the present study, as many as 45% of female and 36% of male university students experienced contact forms of sexual abuse prior to age 18. When noncontact and contact forms were combined, this rate reached 63% for females

and 52% for males. These rates are similar to those obtained in the earlier CMQ study (*i.e.*, contact sexual abuse rates: 49% for females and 33% for males; noncontact and contact sexual abuse rates combined: 52% for females and 37% for males). Although these rates are higher than those obtained by other researchers using community surveys (*e.g.*, Finkelhor, 1994; Finkelhor *et al.*, 1990), they are remarkably similar to those obtained by Russell (1986) and by Wyatt (1985) who conducted face-to-face interviews with general population samples of females in California. For example, Russell found that 54% of females had experienced sexual abuse (38% when noncontact forms were excluded), and Wyatt 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.

However, despite the comparability of these rates, differences likely occurred with respect to the number and severity of sexually abusive acts experienced. For example, of those students in the present sample who reported contact sexual abuse, the majority reported less severe forms, such as fondling through clothing, as opposed to conceptually more severe forms such as digital penetration or intercourse. In contrast, Russell (1986) noted that 64% of her sample reported the more severe forms of sexual abuse. It is possible that differences might also exist between the number of times students in the present study experienced sexually abusive acts relative to participants in the Russell study or the Wyatt study. Among sexually abused students 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 in a manner that would facilitate such comparisons. However, the present findings appear to support those indicating that university students tend to report less

severe forms and less frequent occurrences of maltreatment than do members of the general population or clinical samples (*e.g.*, Briere, 1992a; Finkelhor, 1984).

Physical Abuse

Overall, greater than 67% of females and 59% of males in the present sample reported having had experienced at least one occurrence of physical violence at the hand of a parental figure. This rate is nearly identical to that obtained in earlier research with the PAQ, and to that reported by Runtz (1992), who also used an undergraduate student sample, but whose scale was comprised of a somewhat different subset of items than those used in the present study. As discussed earlier, however, establishment of prevalence rates is complicated by 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 present data also were reported 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 34.5% for females and 46.2% for males. If more strict criteria were imposed, such as (a) hitting a child hard enough to cause bruising, swelling, or bleeding, or (b) punching with a closed fist, the rates would be, respectively, 20.6% and 5.3% for females, and 22.2% and 7.5% for males.

For those who might consider the frequency of physically violent behavior experienced crucial to the definition of physical abuse, 26.6% of females and 30.8% of males in the present sample could be considered physically abused if the criterion chosen was experiencing one or more behaviors comprising the PAQ scale *sometimes* to

very often during childhood. In fact, this criterion would correspond to that which would identify students who scored above the median on the PAQ.

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 10.9% for females and 10.2 for males. Finally, if one were to consider only those items that comprised the Severe Physical Abuse subscale, 7.4% of females and 11.6% of males reported that one or more of these behaviors occurred at least once during childhood. Even in isolation, such rates seem alarming, considering the heinous nature of these acts (*e.g.*, intentional 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 generally reported similar rates for most types of childhood physical abuse, although rates for males tended to be higher for some behaviors.

The paucity of data concerning the prevalence of physical abuse, utilizing similar methods of assessment to those of the present study, makes broader 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 themselves (by telephone) about their behaviors, as opposed to surveying children about violence they experienced.

However, at least one study that assessed physical abuse by respondents' retrospective reports of childhood experiences 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 21.3% of participants reported having been spanked hard enough to receive such injuries. Again, caution should be exercised when making comparisons among isolated findings when definitional consensus is poor (*e.g.*, Kolko, 1996; Zigler & Hall, 1991). The different rates obtained in these studies might be due to such factors as sample differences, measurement differences, or both.

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 maltreatment. Also like some forms of physical abuse, behaviors thought to represent psychological maltreatment, particularly verbal behaviors, appear to be part of the fabric of parents' daily interactions with their children. However, unlike other most other forms of maltreatment, there is seldom tangible 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 society, relative to physical abuse and sexual abuse. For example, although it might be technically accurate to consider a child psychologically maltreated if he or she experienced a single verbal put-down by a parent, 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.*, Courtois, 1988; Russell, 1986).

It is understandable, therefore, that psychological forms of maltreatment are seldom reported to child protection agencies or perhaps not even considered to constitute maltreatment by some; in many respects, a certain level is probably considered tolerable, perhaps even normal. It should be of little surprise, then, that 99% of university students in the present sample reported having had experienced at least one occurrence of psychologically maltreating behavior during childhood at the hand of a parent. Yet, even when considering higher frequencies of psychological maltreatment, as many as 62% of students reported having had experienced this form of maltreatment *often* or *very often*, whereas nearly one-third of participants reported having had 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 concern about the manner in which children are treated in our society by their parents. When examined separately,

the forms of psychological maltreatment that appear to have been experienced most frequently by students in the present sample are Controlling or Stifling Independence, Verbal Terrorism, Denying Emotional Responsiveness, and Unreliable and Inconsistent Care, which were experienced *often to very often* by 20% or more of students.

Moreover, eight of the 12 subforms of psychological maltreatment, were experienced *often to very often* by greater than 10% of participants.

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

Prevalence statistics from this study indicate that all forms of child maltreatment occur in significant proportions in our society and that psychological maltreatment is the most prevalent. Yet, an issue seldom addressed in studies of childhood maltreatment is the extent to which various forms of maltreatment might have 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, which is informed by the present data, is an important one with respect to the contention that psychological maltreatment is the “core component” of child maltreatment (*e.g.*, Garbarino *et al.*, 1986; Hart *et al.*, 1987; Hart *et al.*, 1996; Navarre, 1987).

If psychological maltreatment is indeed a core component of the other forms, then it should 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 concurrently in most cases of physical abuse and sexual abuse, but common sense would suggest that this was the case. As discussed above, it would be difficult to imagine physical abuse or sexual abuse occurring without concurrent behaviors that could be considered to constitute psychological maltreatment (*e.g.*, terrorizing, degrading, controlling) and that, arguably, may be most responsible for any negative psychological sequelae observed in

victims of physical and sexual abuse. Consistent with such expectations, and with previous findings with the CMQ, psychological maltreatment was experienced by the vast majority of participants who were physically abused (84%) and sexually abused (78%), although the converse was not true.

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, especially in combination with results from multivariate analyses (discussed later) that examine the unique contribution of each major form of maltreatment to symptom status. Yet, it is clear that many issues would need to be confronted to adequately address so complex an issue. 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 and, ideally, corroborated. Perhaps most important, participants' perceptions of and attributions for the maltreating acts would need to be examined. In this regard, a similar act of physical abuse or even sexual abuse might be interpreted quite diversely by different individuals, depending upon conditions both external and internal to them. Thus, one individual who is hit by a parent, 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 physically abusive or even sexually abusive act is motivated by love or regard for the child.

Characteristics of the CMQ

The first set of formal hypotheses for this study (Hypotheses 1A to 1E) concerned aspects of internal consistency reliability, factor structure, and

intercorrelations among the CMQ scales and subscale. Results from analyses in these regards generally were expected to replicate findings from the original study with the CMQ, thus providing evidence for the stability and reliability of such findings across different samples collected from the same population of university students. Each of these hypotheses was, in fact, confirmed.

Consistent with Hypothesis 1A, there was evidence that the CMQ component questionnaires have quite high internal consistency reliability values (*i.e.*, .97 for the PMQ, .89 for the PAQ, .97 for the SAQ-Parental version, and .96 for the SAQ-Nonparental version). In addition, all subscales comprising these questionnaires demonstrated high internal consistency values, with the exception of the Corrupting subscale of the PMQ, which had an alpha value in the moderate range, likely due in large part to the low variability in distribution for this subscale, the result of few students having positively endorsed items comprising the subscale. As indicated earlier, such findings are to be expected when participants are assessed with respect to their experiences of relatively extreme or unusual events, such as those comprising the Corrupting subscales, particularly in a population generally not considered to have been prone to experiencing such events (*e.g.*, Briere, 1992a; Finkelhor, 1986).

Hypothesis 1B predicted moderate to high correlations among subscales comprising each of the PMQ, PAQ, SAQ-Parental version, and the SAQ-Nonparental version, and this was found to be the case. In addition, because they were created as theoretically distinct measures, correlations between the PMQ, the PAQ, and the SAQ were expected to be generally lower than those observed between the full scale and its subscales. Yet, owing to the greater topographical similarity between physical abuse and some forms of psychological maltreatment, relative to that between either of these forms and sexual abuse, correlations between the PMQ and the PAQ were expected to be stronger than those between the PMQ and the SAQ and between the PAQ and the

SAQ. Confirmation was provided for the latter part of this hypothesis, although the relatively high correlations observed between physical abuse and psychological maltreatment subscales (in the moderate to high range) suggested considerable association between these constructs, likely indicating both construct overlap and co-occurrence of these forms of maltreatment, as discussed above.

Hypotheses 1C through 1E were concerned more directly with the degree to which each of the CMQ scales and subscales might be discernable as separate constructs. Results from the principal components analyses were consistent with describing each of the subscales comprising the PMQ, PAQ, SAQ-P, and SAQ-NP as unitary constructs, in concordance with my intent when they were created. However, results also generally indicated a lack of specificity between the subscales comprising each of the major scales. Thus, when each CMQ component questionnaire was examined separately, a general factor emerged to represent each of physical abuse, parental sexual abuse, and nonparental sexual abuse. For the PMQ, there was evidence that subscales more directly concerned with physical violence (i.e., Physical Terrorism and Witness to Violence) were distinct from other subforms of psychological maltreatment, and that Corrupting and Physical Neglect shared sources of variance distinct from other subforms. Because of the generally high degree of overlap considered to occur among component subscales of the broad forms of maltreatment, the small numbers of components were expected and predicted, especially with a university student sample in which generally low frequencies and few cases of severe incidents of maltreatment are typically reported. It is noted that, for similar reasons, such results are often obtained for measures of other constructs, such as symptom status. For example, studies utilizing student samples generally produce evidence for a “general” factor of symptomatology for measures such as the BSI, although multi-factor solutions tend to result with clinical samples.

With these considerations in mind, the finding of a two- or three-component solution for the PMQ subscales is compelling. This is a novel finding, as only a single component solution resulted for both genders in the earlier CMQ study. However, the findings indicating that PMQ subscales can be divided, at upon lines of direct relation to physical violence, are supported by results from the principal components analyses for the entire CMQ indicating that the broad forms of psychological maltreatment, physical abuse, and sexual abuse are generally discernable from one another (Hypothesis 1E). As predicted, parental sexual abuse and nonparental sexual abuse each defined a separate component. Psychological maltreatment subforms not involving explicit physical violence defined another component, and physical abuse and the two forms of psychological maltreatment involving physical violence defined another component. A final component was defined by the Corrupting and Physical Neglect subscales, also consistent with the principal components analyses of the PMQ. Such results point to the efficacy of continuing to explore factor structures of the CMQ, both with similar and divergent populations, to determine whether the present results are unique to a student population or are more generally observed. In particular, research may prove useful with populations in which the incidence of all forms of maltreatment may be greater, as might be expected in clinical or forensic populations, affording more even distribution of CMQ subscale scores.

Associations Between Maltreatment and Symptom Status

Hypotheses 2A to 2C concerned relationships expected to be observed among the maltreatment variables and the measures of symptom status. Consistent with earlier findings with the CMQ and with findings from the child maltreatment literature, results from the present study provided support for generally moderate positive bivariate correlations between childhood maltreatment history and adulthood symptomatology (Hypothesis 2A). In addition, also consistent with predictions and earlier CMQ

findings, results from multivariate analyses provided compelling evidence for the efficacy of childhood maltreatment experiences as predictors of psychological symptom status in adulthood. Of particular relevance in the present study were the findings that psychological maltreatment was the strongest predictor of psychological symptom status for every symptom measure for males and for all but one TSI subscale for females. Consistent with the theory that psychological maltreatment is the core component of childhood maltreatment, it was found both to share a considerable amount of variability with other forms of maltreatment in the prediction of symptom status, and to contribute the overwhelming majority of unique variability in all but one case. In addition, a history of childhood maltreatment, and particularly of psychological maltreatment, appeared to be a stronger predictor of symptom status than were self-reported childhood experiences of personal loss, such as parental separation or death, or experience of alternative forms of trauma, such as serious accidents or natural disasters. However, it is noted that these latter findings are tenuous, given that the measures used to assess loss and trauma are unestablished with respect to reliability and validity, and were included in the present study for exploratory purposes.

In general terms, the ability for self-reported childhood maltreatment history to successfully predict elevated psychological symptomatology among university students is particularly compelling, given the belief that this special population is comprised of individuals who may represent a higher socioeconomic status, may be more highly functioning, and may even be less likely to have experienced frequent or severe forms of abuse than members of the general population (*e.g.*, Briere, 1992; Finkelhor & Baron, 1986). Although higher socioeconomic status might serve as a buffer against certain types of stress, furthermore, (*e.g.*, those associated with poverty or diminished psychological resources) the present results add weight to findings presented by others

that suggest long-term negative consequences of childhood maltreatment are discernable in all social strata.

Convergent, Discriminant, and Incremental Validity of the PMQ

Hypotheses 3A through 3D are concerned with the efficacy of the PMQ as a measure of the construct of psychological maltreatment and as a predictor of symptom status, relative to a more established measure. As described earlier, the 60-item Parental Acceptance and Rejection Questionnaire (PARQ) was developed roughly 20 years ago by Ronald Rohner to examine the theoretical continuum of parenting behavior he has described as parental acceptance and rejection. Based upon numerous cross-cultural studies, Rohner and his colleagues (*e.g.*, Rohner, 1975, 1986; Rohner and Rohner, 1980) have determined that rejection is manifested universally in two major forms, that of parental hostility and aggression, and that of parental indifference and neglect, and he created the PARQ to assist in the investigation of this theory. Rohner (1991) has presented reliability and validity data for the PARQ, which include the establishment of reasonably good concurrent validity with relevant subscales from related measures (*i.e.*, Schaefer's Child's Report of Parent Behavior Inventory and Bronfenbrenner's Parental Behavior Questionnaire).

Convergent and discriminant validity (*e.g.*, Campbell, 1960; Campbell & Fiske, 1959) involve the indication of construct validity through the demonstration that a measure correlates with similar and dissimilar variables in expected ways. Thus, a measure should correlate highly with variables with which it is theoretically similar and it should not correlate meaningfully with variables with which it is theoretically different (Anastasi, 1988; DeVellis, 1991). In the case of maltreatment measures, the PMQ should correlate more highly with an alternative measure of psychological maltreatment (convergent validity) than it should with measures of physical abuse or sexual abuse (discriminant validity). Because the SAQ-NP assesses maltreatment by a

person other than a parental figure, it would be expected to be least strongly correlated, and perhaps not meaningfully correlated at all, with the PMQ. These same patterns should hold for the alternative measure of psychological maltreatment.

In part, evidence for discriminant validity of the PMQ is provided by the pattern of correlations observed among the CMQ scales, as described by Hypothesis 1B. However, more compelling evidence of convergent and discriminant validity of the PMQ was provided both by the observation of high bivariate correlations between the PMQ and the PARQ (*i.e.*, $r = .74$) and by the observation of relatively lower correlations between the PAQ and the PARQ (*i.e.*, $r = .58$), between the SAQ-P and the PARQ (*i.e.*, $r = .28$), and between the SAQ-NP and the PARQ (*i.e.*, $r = .15$). This pattern of correlation is entirely expected, and the strength of relationships between the PARQ and the measures of physical abuse and sexual abuse are consistent with those of the PMQ and these measures. Further, there was a tendency for the PARQ subscales to correlate with PMQ subscales in expected ways, with subscales theoretically most similar tending to be more strongly correlated than theoretically less similar subscales.

Evidence of incremental validity (Sechrest, 1963, 1984) of the PMQ was provided by the results of multivariate analyses that assessed the degree to which the PMQ was able to contribute additional unique variability in the prediction of symptom scores, once the variability attributed to the PARQ was already taken into account. Compelling positive findings were obtained from analyses that utilized the total PARQ and the total PMQ, as well as from those that utilized paired similar subscales from the PARQ and the PMQ. Such findings suggest that, relative to the PARQ, the PMQ may be measuring a broader range of parental behaviors thought to constitute psychological maltreatment and, as such, is capable of explaining significantly more of the variability in symptom scores and serving as a stronger predictor of symptom status in adulthood.

Stability and Test-Retest Reliability of the CMQ

A major advantage of the present study over other studies concerned with the assessment of childhood maltreatment was the utilization of a test-retest design. This design affords a unique opportunity to address important questions about the reliability of the assessment measures utilized and the stability of respondents' reports of maltreatment over time. Whereas test-retest reliability is considered to be an important dimension of the overall reliability of a psychological measure (*e.g.*, DeVellis, 1991; Sechrest, 1984; Spector, 1992), it also is considered to be a critical factor to consider when assessing events that may have occurred at some distal point in the past, such as childhood maltreatment reported by an adult respondent (*e.g.*, Briere, 1992b; Briere & Conte, 1993; Friedrich, Talley, *et al.*, 1997; Menard, 1991). Consistent with expectations and predictions (Hypothesis 4), CMQ scores were found to be remarkably stable over a 4-month time lag, with significant differences apparent between Part 1 and Part 2 scores only for two PMQ subscales. In addition, test-retest reliability values were found to be high for the total PMQ ($r = .85$ for females and $r = .84$ for males), for the total PAQ ($r = .81$ for females and $r = .73$ for males), and for the SAQ-Parental version ($r = .87$ for females and $r = .96$ for males).⁴ Test-retest values also were found to be moderate to high for the PMQ subscales (average $r = .75$ for females and average $r = .72$ for males).

Combined, these results indicate considerable stability and reliability in participants' responses to the CMQ over a relatively long period of time. Such findings are consistent with those reported in the very few studies that have assessed concordance of maltreatment reports over time. For example, Bernstein & Fink (1998) assessed test-retest reliability of the relatively new Childhood Trauma Questionnaire (CTQ) with a sample of 40 methadone-maintained outpatients. The CTQ is comprised

⁴ Because the SAQ-NP was not administered at Part 2, test-retest data are not available for this measure.

of five 5-item subscales: Emotional Abuse, Physical Abuse, Sexual Abuse, Emotional Neglect, and Physical Neglect. Test-retest correlations for their sample were found to range from .79 to .81 for the subscales, and a value of .86 was reported for the total scale.

In a large community-based sample, Friedrich, Talley, *et al.* (1997) examined consistency over a 1½ year time lag of adults' reports of sexual abuse, physical abuse, and psychological maltreatment. Considering the long time lapse, concordance of reports was reasonably high for sexual abuse (85.6%, kappa = .64) and physical abuse (91.8%, kappa = .59), although it was low for psychological maltreatment (65.4%, kappa = .25). The latter finding is at odds with those from the present study and from the Bernstein & Fink results that indicate test-retest reliability for psychological maltreatment reports can be at least as high as that for reports of sexual abuse and physical abuse. The fact that only a single question was used during the initial survey in the Friedrich, Talley, *et al.* study to assess each of physical abuse (*i.e.*, whether an older person had ever hit, kicked, or beaten the respondent) and psychological maltreatment (*i.e.*, whether the respondent had been yelled at, threatened, or called demeaning names) is of interest when comparing these concordance rates. Because psychological maltreatment is more difficult to circumscribe, and may tend to be seen as a more usual part of one's everyday life than are other forms of maltreatment, it may be especially important to assess this form of maltreatment with multiple questions about specific behaviors, such as the format used with the CMQ. Discrepancy between the Friedrich, Talley, *et al.* findings and the present results may in fact be a result of measurement factors such as the number of questions asked and the response format used. Alternatively, differences in concordance rates may reflect differences in sample characteristics and/or other methodological considerations, including the considerable difference in test-retest time lags used in the two studies. Further, Friedrich, Talley, *et*

al. noted that their two questionnaires were not completely equivalent, as modifications were made to the follow-up questions, and the follow-up questionnaire assessed a narrower age range for psychological maltreatment than did the first questionnaire. Clearly, additional research is required in order to better inform the issue of concordance of maltreatment reports over time, and it may be useful to pay particular attention to issues of types and numbers of questions used, as well as length of time between assessments.

Assessment of the Extent to Which Psychological Symptom Status Might Affect Stability of Maltreatment Reports Over Time

The final formal hypothesis (Hypothesis 5) concerns the extent to which one's symptom status might affect retrospective reports of maltreatment. 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). For example, drawing mainly from the psychopathology literature, it has been suggested that an individual's mood, specifically symptoms of depression or anxiety, can bias self-report of symptoms and clinical presentation. This could occur because depression or anxiety might be accompanied by cognitive distortions that affect one's judgement about themselves or their experiences. Alternatively, increased levels of depression or anxiety might be associated with temporary personality changes (Reich, Noyes, Coryell, & O'Gorman, 1986; Stein, Hollander, & Skodol, 1993). Although several studies have provided evidence that an individual's symptomatic state can, in fact, influence self-report measures (*e.g.*, Bianchi & Fergusson, 1977; Hirschfeld *et al.*, 1983; Joffe and Regan, 1988; Mavissakalian and Hamann, 1987), most of this research has utilized clinical samples and has focused on the influence of dysphoric state on self-report tests of personality traits or disorders. As a result, the findings may not be particularly relevant to self-report of past experiences by relatively healthy individuals, such as the university students that

comprised the present sample. In addition, many of the research findings in this area have been limited and inconclusive.

Thus, it was hypothesized that students' symptom levels in the present study would not be found to be significantly related to the stability of their reports of maltreatment over time. In fact, this was generally found to be the case, both for psychological maltreatment and for physical abuse, although there were some slight potential gender differences. For males, symptom status failed to be a significant unique predictor of maltreatment reports for any of the symptom measures used. For females, symptom status played a minor but essentially negligible role in predicting maltreatment reports. The results strongly suggest that the symptom status of participants in this sample did not meaningfully affect their responses to items assessing childhood maltreatment, at least for psychological maltreatment or physical abuse. Similar results would be expected for sexual abuse reports were they to be assessed in this manner.

Limitations of the Present Study

Several factors limit the interpretation and generalizability of the findings from this study and warrant discussion. First, the fact that the sample was comprised entirely of undergraduate university students is a serious limiting factor. As other researchers have suggested, university student samples might differ from other samples, such as members from the general population and clinical patients, not only on demographic variables like IQ and social class (*e.g.*, Finkelhor & Baron, 1986), but also with respect to the extent and severity of childhood maltreatment experienced (*e.g.*, Briere, 1992a) and overall 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 that indicate demographic variables such as family income level are unrelated to maltreatment might not have implications for samples that are more heterogeneous with respect to demographic factors. It is noted 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), they 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 because of factors such as recruitment procedures. For example, the process for recruiting participants 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 them to complete a survey of family experiences that contained questions of a personal nature. Students were then free to decide whether or not they wished to participate. It is conceivable that the information provided to them might have influenced this decision, 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 not all participants provided complete responses to their questionnaires, and that additional data were eliminated from analyses based upon

unacceptable TSI validity scores, also might have biased the results to some degree. Although the number of deleted cases was small (*i.e.*, 5.6% at Part 1 and 5.7% at Part 2), the extent of missing or questionable data on these questionnaires made it impossible to compare these participants to others with respect to important variables such as extent of maltreatment or symptomatology. It is conceivable that the effect of such omissions could be significant if, for example, only participants who experienced the most severe forms of maltreatment or were most symptomatic either refused to complete the entire questionnaire or provided invalid responses. Although such events seem unlikely, the lack of information about these participants and the reasons for missing or invalid data precludes the drawing of conclusions about what effect missing data might have had on the present findings.

Another major concern with respect to the present findings is that the design of this study and the resulting analyses relied exclusively upon participants' retrospective self-reports of childhood experiences, as well as their present experiences of psychological symptoms. Although it seems unlikely that participants would report 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 have compromised the data. As a result of the growing awareness of the critical role that response bias can play as a threat to the validity of studies utilizing self-report measures (*e.g.*, Briere, 1992b), childhood maltreatment researchers have begun to pay closer attention to such issues in their study designs.

Unfortunately, some of the most effective methods to minimize the extent of inaccurate reporting of maltreatment histories by participants (*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 relied on retrospective

reports by university students. However, several methodological procedures were utilized in the present study both to assess potential report bias and to minimize its influence. Procedures that might have helped to minimize inaccurate reports of maltreatment include (a) presenting the questionnaire items to participants 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 (such as might occur by recruiting participants based upon abuse status); (d) using multiple specific questions to assess maltreatment experiences as opposed to few general questions; and (e) avoiding the use of labels such as abuse or maltreatment, or requiring participants to decide for themselves whether or not their experiences might have constituted maltreatment.

In addition, TSI validity scales were utilized to identify students who likely provided invalid data, and all data provided by such students were eliminated from analyses. Next, by including a measure of social desirability, it was possible to determine that maltreatment reports were likely not meaningfully influenced by social desirability response bias. Finally, methodological and statistical procedures were used to determine that reports of maltreatment were provided with a high degree of reliability and consistency over a 4-month time lag, and were not meaningfully influenced by symptom status.

Whereas such procedures can provide reasonable assurance that conscious and relatively unsophisticated attempts to provide false data did not influence the findings significantly, it is still possible that inaccurate yet consistent responses were provided. For example, it is possible that some participants who were somehow convinced, albeit falsely, that they had experienced specific types of maltreatment, in fact reported such experiences in the belief that they were providing accurate information. Conversely, it

is possible that some participants who believed they were providing accurate information when they denied maltreatment experiences may in fact have experienced maltreatment. For example, Williams (1994) found that greater than one-third of women with a documented history of childhood sexual victimization did not seem to recall the abuse when followed up 17 years later. The data indicated that those who were younger at the time of the abuse and those who were abused by someone they knew were more likely to have no recall of the abuse.

Additional research findings suggest 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, 1993; Herman & Schatzow, 1987). Given that these individuals might also report greater psychological sequelae than abused but nonamnesic individuals (Briere & Conte, 1993), the most likely result is that positive findings with respect to associations between maltreatment and symptomatology could be diluted. However, because the number of severely maltreated participants in a student sample is likely to be quite low, the influence of such potential biases on the present data would be expected to be minimal.

Another major concern regarding the present results 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 participants' reports of childhood maltreatment and current levels of psychological adjustment might be accurate, a number of considerations preclude the drawing of causal inferences with respect to these variables. For example, because no information was available regarding levels of psychological functioning prior to the reported 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 also 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. However, as other writers have suggested (*e.g.*, Briere & Elliott, 1993; Courtois, 1988; Finkelhor & Baron, 1986; Friedrich, 1996), the occurrence of maltreatment is also likely to substantially influence family functioning, such that any relationship between these variables is more likely to be reciprocal. In addition, well-constructed studies that examined the issue have generally determined that childhood maltreatment continues to be a significant predictor of symptom status even when the potential effects of family functioning variables are statistically controlled.

Although the design of the present study did not allow the investigation of these important questions, an attempt was made to assess whether two variables theoretically related to psychological adjustment, namely experience of personal loss or trauma other than maltreatment experiences, were related to maltreatment or symptom status. Although there was no compelling evidence of such relationships, the measures used to assess loss and trauma experiences were unestablished with respect to reliability and validity, and these 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.

Summary and Conclusions

Combined, the results from this study provide encouraging evidence for the reliability and validity of the CMQ, and specifically the PMQ, as a measure of childhood maltreatment. The present data replicated results from initial research with the CMQ indicating that its component scales and subscales have generally high internal consistency reliability values. In addition, there was remarkable consistency in mean CMQ scores and frequencies reported of all forms of maltreatment across the two studies. Evidence also was provided in the present study for temporal stability and reliability of students' responses to CMQ items over time. As expected, good concurrent, convergent, discriminant and incremental validity also were demonstrated for the PMQ as a measure of psychological maltreatment.

The findings also provide support for the contention that child maltreatment is prevalent, with nearly half of female and greater than one-third of male university students reporting at least one contact sexual abuse experience prior to age 18, greater than one-quarter of participants reporting having had experienced childhood physical violence *sometimes* to *very often* at the hands of parental figures, and 62% of university students reporting that they had experienced at least one form of psychological maltreatment by a parental figure *often* or *very often* during childhood. Moreover, results provide strong evidence for the relationship between psychological maltreatment and psychological functioning, such 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.

Despite indications that the integrity of the data might have been compromised by a number of factors, such as specificity of the sample, exclusive use of retrospective reports of maltreatment, and failure to assess additional 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), with results obtained from controlled studies conducted with maltreated children (*e.g.*, Claussen & Crittenden, 1991; Egeland, *et al.*, 1983), and from retrospective-report studies with adults (*e.g.*, Briere & Runtz, 1988, 1990; Demaré, 1993b; Engels & Moisan, 1994; Graziano & Namaste, 1990; Vissing *et al.*, 1991) indicating that psychological child maltreatment, along with physical and sexual forms, has negative and lasting psychological consequences. Moreover, the central role that psychological maltreatment appeared to play in the present study in the prevalence of all forms of self-reported childhood maltreatment, and in the prediction of poorer levels of psychological functioning in adulthood, provides support for the contention that psychological maltreatment is the core component of child maltreatment (*e.g.*, Hart & Brassard, 1991a; Hart *et al.*, 1987; Navarre, 1987).

That the development of the PMQ was based primarily upon the domains of psychological maltreatment described by leaders in the field such as Garbarino (1986), Hart, Germaine, & Brassard (1987), and Rohner (1991), is a major strength of the measure, and the present results are encouraging with respect to the efficacy of these domains. Although the subforms of psychological maltreatment comprising the PMQ are more numerous than those identified by these leaders initially, primarily through theory and expert opinion, and more recently in empirical study (*e.g.*, Hart & Brassard, 1991a, 1991b), the PMQ subscales can be easily subsumed by the six subforms of

psychological maltreatment currently described by these researchers (*i.e.*, Spurning, Terrorizing, Isolating, Exploiting/Corrupting, Denying Emotional Responsiveness, and Mental Health, Medical, and Educational Neglect). Future research with the PMQ should more carefully explore its factor structure, particularly with more diverse populations, to determine what categories of psychological maltreatment are most viable empirically. At present, however, it seems prudent to retain the current taxonomy of the PMQ, even if to serve as a reminder of the diversity of parental behaviors that can be considered to constitute psychological maltreatment, and to ensure that the range of these behaviors is adequately assessed.

Despite slow progress, the growing interest in the area of psychological maltreatment and concerted research efforts with respect both to definitions and potential outcomes indicate that public awareness of the issue as well as social policy are finally being influenced significantly. For example, the more recent revision of the domains initially proposed by Hart *et al.* (1987) have been utilized in the U.S. at the state level, such as the guidelines drafted for use by Arkansas Child Protective Services (Hart, 1995). In addition, the revised Hart and Brassard domains (*e.g.*, Hart & Brassard, 1991a, 1991b, Hart *et al.*, 1996) have been used as the basis for the *Practice Guidelines for Psychosocial Evaluation of Suspected Psychological Maltreatment in Children and Adolescents*, developed recently by the American Professional Society on the Abuse of Children (APSAC, 1995), a professional organization with over 5,000 members in the U.S. and other countries. The guidelines were developed to provide guidance for professionals in their evaluations of children, primarily in forensic assessment, and also are intended to facilitate case planning, legal decision making, and treatment planning. In Canada, several of the categories of psychological maltreatment identified by these researchers appear in Provincial Government protocols for professionals (*e.g.*, Manitoba Family Services, 1993). In addition, a fact sheet recently

released by the Canadian Federal Government (Health Canada, 1996) lists the domains and definitions of psychological maltreatment described by Hart & Brassard (*e.g.*, 1991a, 1991b), identifying these as “widely recognized...forms of emotional abuse” (p. 1).

Overall, these developments in the fields of research and social policy suggest that some of the impediments to progress in the definition and identification of psychological maltreatment can be surmounted. However, as in the case with physical abuse and sexual abuse, continued successful advancement of this field is dependent upon concerted and sustained cooperative efforts among professionals in theoretical, research, social policy, and public domains. 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 both assess and address psychological maltreatment experiences that their clients (both children and adults) might have experienced, at least with the quality of attention devoted to physical abuse and sexual abuse experiences.

REFERENCES

- Aber, J. L., & Zigler, E. (1981). Developmental considerations in the definition of child maltreatment. In R. Rizley & D. Cicchetti (Eds.), *Developmental perspectives on child maltreatment*. San Francisco: Jossey-Bass.
- Abeles, N. (1984). Proceedings of the American Psychological Association for the year 1983. *American Psychologist*, *39*, 604-638.
- American Humane Association. (1988). *Responding to child neglect and abuse*. Denver, CO: American Humane Association.
- American Professional Society on the Abuse of Children. (1995). *Practice guidelines: Psychosocial evaluation of suspected psychological maltreatment in children and adolescents*. Chicago: Author.
- Anastasi, A. (1988). *Psychological testing (6th ed.)*. New York: Macmillan.
- Anthony, E. J., & Cohler, B. J. (1987). *The invulnerable child*. New York: Guilford.
- Baily, T. F., & Baily, W. F. (1986). *Operational definitions of child emotional maltreatment: Final report*. Augusta, ME: EM Project, Bureau of Social Services, Maine Department of Human Services.
- Barnet, D., Manly, J. T., Cicchetti, D. (1991). Continuing toward an operational definition of psychological maltreatment. *Development and Psychopathology*, *3*, 19-29.
- Beck, A., Steer, R., & Garbin, M. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review*, *8*, 77-100.
- Beck, A., Ward, C., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, *4*, 562-571.
- Belsky, J. (1991). Psychological maltreatment: Definitional limitations and unstated assumptions. *Development and Psychopathology*, *3*, 31-36.
- Berliner, L., & Elliott, D. (1996). Sexual abuse of children. In J. Briere, L. Berliner, J. Bulkley, C. Jenny, & T. Reid (Eds.) *The APSAC Handbook on Child Maltreatment*. Thousand Oaks, CA: Sage.
- Bernstein, D., & Fink, L. (1998). *Childhood Trauma Questionnaire: A retrospective self-report (manual)*. San Antonio: The Psychological Corporation.
- Bianchi, G. N. & Fergusson, D. M. (1977). The effect of mental state on EPI scores. *British Journal of Psychiatry*, *131*, 306-309.
- Brassard, M., & Hardy, D. (1997). Psychological maltreatment. In M. Helfer, R. Kempe, & R. Krugman (Eds.) *The battered child (5th edition)*. Chicago: University of Chicago Press.

- Brassard, M., Hart, S., & Hardy, D. (1991). Psychological and emotional abuse of children. In R. Ammerman & M. Hersen, *Case studies in family violence*. New York: Plenum.
- Brassard, M., Hart, S., & Hardy, D. (1993). The psychological maltreatment rating scales. *Child Abuse & Neglect*, *17*, 715-729.
- Bliss, E. L. (1984). A symptom profile of patients with multiple personalities, including MMPI results. *Journal of Nervous and Mental Disease*, *172*, 197-202.
- Briere, J. (1988). Controlling for family variables in abuse effects research: A critique of the "partialling" approach. *Journal of Interpersonal Violence*, *3*, 80-89.
- Briere, J. (1992a). *Child abuse trauma: Theory and treatment of the lasting effects*. Newbury Park, CA: Sage.
- Briere, J. (1992b). Methodological issues in the study of sexual abuse effects. *Journal of Consulting and Clinical Psychology*, *60*, 196-203.
- Briere, J. (1995). *Trauma Symptom Inventory (TSI) professional manual*. Odessa, FL: Psychological Assessment Resources.
- Briere, J., & Conte, J. (1993). Self-reported amnesia for abuse in adults molested as children. *Journal of Traumatic Stress*, *6*, 21-31.
- Briere, J., Elliott, D. M., Harris, K., & Cotman (1993). Trauma Symptom Inventory: Psychometric characteristics and association with childhood and adult trauma in clinical samples. *Journal of Interpersonal Violence*.
- Briere, J., & Elliott, D. (1993a). Studying the long-term effects of sexual abuse: The Trauma Symptom Checklist (TSC) Scales. In A. W. Burgess (Ed.), *Rape and sexual assault*, (Vol. 3). Garland.
- Briere, J., & Elliott, D. (1993b). Sexual abuse, family environment, and psychological symptoms: On the validity of statistical control. *Journal of Consulting and Clinical Psychology*, *61*, 284-288.
- Briere, J., & Elliott, D. (1998). Clinical utility of the Impact of Events Scale: Psychometrics in the general population. *Assessment*, *5*, 171-180.
- Briere, J., Elliott, D., Harris, K., & Cotman, A. (1995). Trauma Symptom Inventory: Psychometric and association with childhood and adulthood victimization in clinical samples. *Journal of Interpersonal Violence*, *10*, 387-401.
- Briere, J., & Runtz, M. (1987). Post Sexual Abuse Trauma: Data and implications for clinical practice. *Journal of Interpersonal Violence*, *2*, 367-369.
- Briere, J., & Runtz, M. (1988). Multivariate correlates of childhood psychological and physical maltreatment among university women. *Child Abuse & Neglect*, *12*, 331-341.
- Briere, J., & Runtz, M. (1989). The Trauma Symptom Checklist (TSC-33): Early data on a new scale. *Journal of Interpersonal Violence*, *4*, 151-163.

- Briere, J., & Runtz, M. (1990). Differential adult symptomatology associated with three types of child abuse histories. *Child Abuse & Neglect, 14*, 357-364.
- Briere, J., Cotman A., Harris, K., & Smiljanich, K. (1992). *The Trauma Symptom Inventory: Preliminary data on reliability and validity*. Paper presented at the 100th Annual Convention of the American Psychological Association, August, Washington, DC.
- Browne, A., & Finkelhor, D. (1986). Impact of child sexual abuse: A review of the research. *Psychological Bulletin, 99*, 66-77.
- Bryer, J. B., Nelson, B. A., Miller, J. B., & Kroll, P. A. (1987). Childhood sexual and physical abuse as factors in adult psychiatric illness. *American Journal of Psychiatry, 144*, 1426-1430.
- Burt, M. R., & Katz, B. L. (1987). Dimensions of recovery from rape: Focus on growth outcomes. *Journal of Interpersonal Violence, 2*, 57-81.
- Catterall, C. (1982). Formulation of the Declaration of the Psychological Rights of the Child. *Viewpoints in Teaching and Learning, 58*, 16-22.
- Cicchetti, D., & Carlson, V. (1989). *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect*. New York: Cambridge University Press.
- Claussen, A. H., & Crittenden, P. M. (1991). Physical and psychological maltreatment: Relations among types of maltreatment. *Child Abuse & Neglect, 15*, 5-18.
- Cochran, C., & Hale, W. (1985). College student norms on the Brief Symptom Inventory. *Journal of Clinical Psychology, 41*, 777-779.
- Conte, J. & Schuerman, J. (1987a). The effects of sexual abuse on children: A multidimensional view. *Journal of Interpersonal Violence, 2*, 380-390.
- Conte, J. & Schuerman, J. (1987b). Factors associated with an increased impact of child sexual abuse. *Child Abuse & Neglect, 11*, 201-212.
- Cook, T. D. & Campbell, D. T. (1979). *Quasi-experimentation: Design and analysis issues for field settings*. New York: Rand McNally.
- Coons, P. M., & Milstein, V. (1986). Psychosexual disturbances in multiple personality: Characteristics, etiology, and treatment. *Journal of Clinical Psychology, 47*, 106-110.
- Coopersmith, S. (1967). *The antecedents of self-esteem*. San Francisco: Freeman.
- Coopersmith, S. (1990). *Manual of the Adult Self-esteem Scale*. Palo Alto, CA: Consulting Psychologists Press.
- Corson, J. & Davidson, H. (1987). Emotional abuse and the law. In M. Brassard, R. Germain, & S. Hart. (Eds.) *The psychological maltreatment of children and youth*. New York: Pergamon.

- Courtois, C. (1988). *Healing the incest wound: Adult survivors in therapy*. New York: Norton.
- Craine, L. S., Henson, C. H., Colliver, J. A., MacLean, D. G. (1988). Prevalence of a history of sexual abuse among female psychiatric patients in a state hospital system. *Hospital and Community Psychiatry*, *39*, 300-304.
- Crittenden, P. M., Claussen, A. H., & Sugarman, D. B. (1994). Physical and psychological maltreatment in middle childhood and adolescence. *Development and Psychopathology*, *6*, 145-164.
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, *24*(4) 349-354.
- Darlington, R. B. (1990). *Regression and linear models*. New York: McGraw-Hill.
- Daro, D. (1988). *Confronting child abuse*. New York: Free Press.
- Daro, D. (1992). Building a national child welfare data base: Utilizing a variety of sources. *Protecting Children*, *8*(3), 4-6.
- Daro, D. (1995). *Public opinion and behaviors regarding child abuse prevention: The results of NCPCA's 1995 public opinion poll*. Chicago: National Committee for the Prevention of Child Abuse.
- Daro, D., & McCurdy K. (1991). *Current trends in child abuse reporting and fatalities: The results of the 1990 Annual Fifty State Survey*. Chicago: National Committee for the Prevention of Child Abuse.
- Daro, D., & McCurdy, K. (1992). *Current trends in child abuse reporting and fatalities: The results of the 1991 Annual Fifty State Survey*. Chicago: National Committee for the Prevention of Child Abuse.
- Daro, D., & Mitchell, L. (1987). *Deaths due to maltreatment soar: The results of the eighth semi-annual fifty state survey*. Chicago: National Committee for the Prevention of Child Abuse.
- Demaré, D. (1993). *Psychological, physical, and sexual childhood maltreatment experiences: Creation of retrospective-report questionnaires for adults and examination of potential long-term psychological consequences of maltreatment*. Unpublished Master's thesis, University of Manitoba, Winnipeg, Manitoba, Canada.
- Demaré, D. (1993, August). *Childhood psychological maltreatment experiences as predictors of psychological symptomatology in adulthood*. Paper presented at the 101st Annual Convention of the American Psychological Association, Toronto, Canada.
- Demaré, D., & Briere, J. (1994, August). *Childhood maltreatment and current symptomatology in 1,179 university students*. Paper presented at the 102nd Annual Convention of the American Psychological Association, Los Angeles, CA.

- Derogatis, L. (1975). *Brief Symptom Inventory*. Baltimore, MD: Clinical Psychometric Research Inc.
- Derogatis, L., & Spencer, M. (1977). *The SCL-90 manual I: Scoring, administration, and procedures for the SCL-90*. Baltimore, MD: Clinical Psychometric Research Inc.
- Derogatis, L., & Spencer, M. (1983). *The SCL-90-R manual II: Scoring, administration, and procedure for the SCL-90-R*. Baltimore, MD: Clinical Psychometric Research Inc.
- Derogatis, L. (1992). *The Brief Symptom Inventory: Administration, scoring, and procedures manual II*. Baltimore, MD: Clinical Psychometric Research Inc.
- Derogatis, L., & Melisaratos, N. (1983). The Brief Symptom Inventory: An introductory report. *Psychological Medicine*, *13*, 595-605.
- Derogatis, L., & Savitz, K. (1999). The SCL-90-R, Brief Symptom Inventory, and Matching Clinical Rating Scales. In M. Maruish *et al.* (Eds.), *The use of psychological testing for treatment planning and outcomes assessment (2nd ed.)*, 679-724.
- DeVellis, R. F. (1991). *Scale development: Theory and applications*. Newbury Park, CA: Sage.
- Dubowitz, H. (1986). *Child maltreatment in the United States: Etiology, impact, and prevention*. Paper prepared for the Congress of the United States, Office of Technology Assessment.
- Edens, J., Otto, R., & Dwyer, T. (1998). Susceptibility of the Trauma Symptom Inventory to malingering. *Journal of Personality Assessment*, *71*, 379-392.
- Egeland, B. (1985). *The consequences of physical and emotional neglect on the development of young children*. Paper presented at the Neglect Symposium, National Center for Child Abuse and Neglect, Washington, DC.
- Egeland, B. (1991). From data to definition. *Development and Psychopathology*, *3*, 37-43.
- Egeland, B., & Erickson, M. (1987). Psychologically unavailable caregiving: The effects on development of young children and the implications for intervention. In M. Brassard, R. Germain, & S. Hart. (Eds.), *The psychological maltreatment of children and youth*. New York: Pergamon.
- Egeland, B., & Sroufe, L. A. (1981). Attachment and early maltreatment. *Child Development*, *52*, 44-52.
- Egeland, B., Sroufe, L. A., & Erickson, M. (1983). The developmental consequence of different patterns of maltreatment. *Child Abuse and Neglect*, *7*, 459-469.

- Engels, M., & Moisan, D. (1994). The Psychological Maltreatment Inventory: Development of a measure of psychological maltreatment in childhood for use in adult clinical settings. *Psychological Reports*, *74*, 595-604.
- Elliott, D. M. & Briere, J. (1992). Sexual abuse trauma among professional women: Validating the Trauma Symptom Checklist-40 (TSC-40). *Child Abuse & Neglect*, *16*, 391-398.
- Finkelhor, D. (1979). *Sexually victimized children*. New York: Free Press.
- Finkelhor, D. (1984). *Child sexual abuse: New theory and research*. New York: Free Press.
- Finkelhor, D. (1990). Early and long-term effects of child sexual abuse: An update. *Professional Psychology*, *21*, 325-330.
- Finkelhor, D. (1994). Current information on the scope and nature of child sexual abuse. *The Future of Children*, *4*, 31-53.
- Finkelhor, D. & Baron, L. (1986). High-risk children. In D. Finkelhor, S. Araji, L. Baron, A. Browne, S. D. Peters, and G. E. Wyatt (Eds.), *A sourcebook on child sexual abuse*, (pp. 60-88). Newbury Park, CA: Sage.
- Finkelhor, D., Hotaling, G., Lewis, & Smith, C. (1990). Sexual abuse in a national survey of adult men and women: Prevalence, characteristics, and risk factors. *Child Abuse & Neglect*, *14*, 19-28.
- Friedrich, W. (1990). *Psychotherapy of sexually abused children and their families*. New York: Norton.
- Friedrich, W. (1996). An integrated model of psychotherapy for abused children. In J. Briere, L. Berliner, J. Bulkley, C. Jenny, & T. Reid (Eds.) *The APSAC Handbook on Child Maltreatment*. Thousand Oaks, CA: Sage.
- Friedrich, W., Bulke, R., & Uргуiza, A. (1987). Children from sexually abusive families: A behavioral comparison. *Journal of Interpersonal Violence*, *2*, 391-402.
- Friedrich, W., Jaworski, T., Huxsahl, J., & Bengtson, B. (1997). Dissociative and sexual behaviors in children and adolescents with sexual abuse and psychiatric histories. *Journal of Interpersonal Violence*, *12*, 155-171.
- Friedrich, W., Grambsch, P., Broughton, D., Kuiper, J., & Beilke, R. (1991). Normative sexual behavior in children. *Pediatrics*, *88*, 456-464.
- Friedrich, W., & Schafer, L. (1995). Somatization in sexually abused children. *Journal of Pediatric Psychology*, *20*, 661-670.
- Friedrich, W., Talley, N., Panser, L., Fett, S., & Zinsmeister, A. (1997). Concordance of reports of childhood abuse by adults. *Child Maltreatment*, *2*, 164-171.
- Frost, N. (1982). The rights of emotionally abused children (editorial). *The Journal of Pediatrics*, *102*(2), 215-216.

- Garbarino, J. (1991). Not all bad developmental outcomes are the result of child abuse. *Development and Psychopathology*, *3*, 45-50.
- Garbarino, J., & Gilliam, G. (1980). *Understanding abusive families*. Lexington, MA: Lexington.
- Garbarino, J., Guttman, E., & Seeley, J. (1986). *The psychologically battered child: Strategies for identification, assessment, and intervention*. San Francisco: Jossey-Bass.
- Garbarino, J., & Vondra, J. (1987). Psychological maltreatment of children and youth. In M. R. Brassard, R. Germain, & S. N. Hart (Eds.), *Psychological maltreatment of children and youth*. New York: Pergamon.
- Garrison, E. G. (1987). Psychological maltreatment of children: An emerging focus for inquiry and concern. *American Psychologist*, *42*, 157-159.
- George, C., & Main, M. (1979). Social interactions of young abused children: Approach, avoidance, and aggression. *Child Development*, *50*, 306-318.
- Giovannoni, J. (1989). Substantiated and unsubstantiated reports of child maltreatment. *Children and Youth Services Review*, *2*, 299-318.
- Giovannoni, J. (1991a). Social policy considerations in defining psychological maltreatment. *Development and Psychopathology*, *3*, 51-59.
- Giovannoni, J. (1991b). Definitional issues in child maltreatment. In D. Cicchetti & V. Carlson (Eds.), *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect*. Cambridge: Cambridge University Press.
- Gold, E. (1986). Long-term effects of sexual victimization in childhood: An attributional approach. *Journal of Consulting and Clinical Psychology*, *54*, 471-475.
- Gorcey, M., Santiago, J. M., & McCall-Perez, F. (1986). Psychological consequences for women sexually abused in childhood. *Social Psychiatry*, *21*, 129-133.
- Haugaard, J. (1991). Defining psychological maltreatment: A prelude to research or an outcome of research? *Development and Psychopathology*, *3*, 71-77.
- Hart, S. (1995). *Subtypes of psychological maltreatment*. (Working paper: Prototype for Arkansas Child Protective Services). Unpublished manuscript.
- Hart, S., Binggeli, N., & Brassard, M. (1998). Evidence for the effects of psychological maltreatment. *Journal of Emotional Abuse*, *1*, 27-58.
- Hart, S. N., & Brassard, M. R. (1991a). Psychological maltreatment: Definitional limitations and unstated assumptions. *Development and Psychopathology*, *3*, 61-70.
- Hart, S. N., & Brassard, M. R. (1991b). *Developing and validating operationally defined measures of emotional maltreatment*. Unpublished manuscript.

- Hart, S. N., Brassard, M. R., & Karlson, H. C. (1996). Psychological maltreatment. In J. Briere, L. Berliner, J. Bulkley, C. Jenny, & T. Reid (Eds.) *The APSAC Handbook on Child Maltreatment*. Thousand Oaks, CA: Sage.
- Hart, S. N., Geraldo, M., & Brassard, M. R. (1986). Psychological maltreatment. In J. Jacobsen (Ed.), *The psychiatric sequelae of child abuse*. Springfield: Charles C. Thomas.
- Hart, S. N., Germain, R., & Brassard, M. R. (1987). The challenge: To clarify and combat psychological maltreatment. In M. R. Brassard, R. Germain, & S. N. Hart, (Eds.). *Psychological maltreatment of children and youth*. New York: Pergamon.
- Hayes, J. (1997). What does the Brief Symptom Inventory measure in college and university counseling center clients? *Journal of Counseling Psychology*, *44*, 360-367.
- Health Canada. (1994). *Child welfare in Canada: The role of provincial and territorial authorities in cases of child abuse*. Ottawa: Minister of Supply and Services.
- Health Canada. (1996). *Emotional abuse: Information from the National Clearinghouse on Family Violence*. Ottawa: Minister of Supply and Services.
- Health Canada. (1999). *Newsletter of the Canadian Incidence Study of Reported Child Abuse and Neglect, 3rd issue*.
- Health Canada. (2000). *Information bulletin: Results of the Canadian Incidence Study of Reported Child Abuse and Neglect (CIS)*.
- Helfer, R. E., & Kempe, C. H., (Eds.). (1968). *The battered child*. Chicago: University of Chicago Press.
- Herman, J. (1981). *Father-daughter incest*. Cambridge, MA: Harvard University Press.
- Herman, J., & Schatzow, E. (1987). Recovery and verification of memories of childhood sexual trauma. *Psychoanalytic Psychology*, *4*, 1-14.
- Hinde, R. (1976). On describing relationships. *Journal of Child Psychology and Psychiatry*, *17*, 1-19.
- Hirschfeld, R. M. A., Klerman, G. L., & Clayton, P. J., et al. (1983). Assessing personality: Effects of the depressive state on trait measurements. *American Journal of Psychiatry*, *140*, 695-699.
- History of child abuse prevention and treatment act Public Law 93-247. (1978). *U.S. Code of Congressional and Administrative News*, *3*, 572-579.
- Jehu, D. (1989). *Beyond sexual abuse: Therapy with women who were childhood victims*. Chichester, UK: Wiley.

- Jehu, D., Gazan, M., & Klassen, C. (1985). Common therapeutic targets among women who were sexually abused in childhood. *Journal of Social Work and Human Sexuality*, *3*, 25-45.
- Joffe, R. T., & Regan, J. J. (1988). Personality and depression. *Journal of Psychiatric Research*, *22*, 279-286.
- Johnson, L., Murphy, S., & Dimond, M. (1996). Reliability, construct validity, and subscale norms of the Brief Symptom Inventory when administered to bereaved parents. *Journal of Nursing Measurement*, *4*, 117-127.
- Kammermn, S. B. & Kahn, A. (1990). Social services for children, youth, and families in the United States. *Children and Youth Services Review* *12*(2), 1-179.
- Katz, R., Katz, J., & Shaw, B. (1999). Beck Depression Inventory and Hopelessness Scale. In M. Maruish *et al.* (Eds.), *The use of psychological testing for treatment planning and outcomes assessment (2nd ed.)*, 921-933.
- Kempe, C. H., Silverman, F. N., Steele, B. F., Droegemueller, W., & Silver, H. K. (1962). The battered child syndrome. *Journal of the American Medical Associations*, *181*, 17-24.
- Linberg, F. H., & Distad, L. J. (1985). Post-traumatic stress disorders in women who experienced childhood incest. *Child Abuse & Neglect*, *9*, 329-334.
- Lourie, I. S., & Stefano, L. (1978). *On defining emotional abuse: Results of an NIMH/NCCAN Workshop*. Washington, DC: National Center on Child Abuse and Neglect.
- Lung, C., & Daro, D. (1996). *Current trends in child abuse reporting and fatalities: The results of the 1995 Annual Fifty State Survey*. Chicago: National Committee for the Prevention of Child Abuse.
- Main, M., & George, C. (1985). Responses of abused and disadvantaged toddlers to distress in age mates: A study in the daycare setting. *Developmental Psychology*, *21*, 407-412.
- Main, M., & Goldwyn, R. (1984). Predicting rejection of her infant from other's representation of her own experience: Implications for the abused-abusing intergenerational cycle. *Child Abuse & Neglect*, *8*, 203-217.
- Maltz, W., & Holman, B. (1987). *Incest and sexuality: A guide to understanding and healing*. Lexington, MA: Lexington Books.
- Manitoba Family Services. (1993). *Child protection and child abuse: A handbook for nurses*. Winnipeg, MB: Manitoba Family Services.
- Mavissakalian, M., & Hamman, M. S. (1987). DSM-III personality disorder in agoraphobia II: Changes with treatment. *Comprehensive Psychiatry*, *28*, 356-361.
- McGee, R. A., & Wolfe, D. A. (1991a). Psychological maltreatment: Toward an operational definition. *Development and Psychopathology*, *3*, 3-18.

- McGee, R. A., & Wolfe, D. A. (1991b). Between a rock and a hard place: Where do we go from here in defining psychological maltreatment? *Development and Psychopathology*, *3*, 119-124.
- Meiselman, K. C. (1978). *Incest: A psychological study of causes and effects with treatment recommendations*. San Francisco: Jossey-Bass.
- Menard, S. (1991). *Longitudinal research*. Newbury Park, CA: Sage.
- Morlan, K., & Tan, S. (1998). Comparison of the Brief Psychiatric Rating Scale and the Brief Symptom Inventory. *Journal of Clinical Psychology*, *54*, 885-894.
- Murphy, S. M., Kilpatrick D. G., Amick-McMullan, A., Veronen, L., Paduhovich, J., Best, C., Villeponteaux, L., & Saunders, B. (1988). Current psychological functioning of child sexual assault survivors: A community study. *Journal of Interpersonal Violence*, *3*, 55-79.
- National Centre on Child Abuse and Neglect. (1981). *Executive summary: National study of the incidence and severity of child abuse and neglect*. Washington, DC: National Center on Child Abuse and Neglect.
- National Centre on Child Abuse and Neglect. (1988). *Study findings: Study of national incidence and prevalence of child abuse and neglect*. Washington, DC: U.S. Department of Health and Human Services.
- Navarre, E. L. (1987). Psychological maltreatment: The core component of child abuse. In M. R. Brassard, R. Germain, & S. N. Hart, (Eds.). *Psychological maltreatment of children and youth*. New York: Pergamon.
- Ney, P. G. (1987). Does verbal abuse leave deeper scars: A study of children and parents. *Canadian Journal of Psychiatry*, *32*, 371-378.
- O'Hagan K. (1993). *Emotional and psychological abuse of children*. Toronto: University of Toronto Press.
- O'Hagan K. (1995). Emotional and psychological abuse: Problems of definition. *Child Abuse & Neglect*, *19*, 449-461.
- Pelton, L. H. (1980). *The social context of child abuse and neglect*. New York: Human Sciences.
- Putnam, F. (1993). Dissociative disorders in children: Behavioral profiles and problems. *Child Abuse & Neglect*, *17*, 39-45.
- Ramanaiah, N., Schill, T., & Leung, L. (1977). A test of the hypothesis about the two-dimensional nature of the Marlowe-Crowne Social Desirability Scale. *Journal of Research in Personality*, *11*, 251-259.
- Reich, J. & Noyes, R., Corywell, W., O'Gorman, T. W. (1986). The effect of state anxiety on personality measurement. *American Journal of Psychiatry*, *143*, 760-763.

- Reynolds, W. M. (1982). Development of reliability and validity of short forms of the Marlowe-Crowne Social Desirability Scale. *Journal of Clinical Psychology, 38*, 119-125.
- Richter, P., Werner, J., Heerlein, A., Kraus, A. & Sauer, H. (1998). On the validity of the Beck Depression Inventory: A review. *Psychopathology, 31*, 160-168.
- Robinson, B., & Kelley, L. (1996). Concurrent validity of the Beck Depression Inventory as a measure of depression. *Psychological Reports, 79*, 929-930.
- Rohner, R. P. (1975). *They love me, they love me not: A worldwide study of the effects of parental acceptance and rejection*. Storrs, CT: University of Connecticut.
- Rohner, R. P. (1986). *The warmth dimension: Foundations of parental acceptance-rejection theory*. Beverly Hills, CA: Sage.
- Rohner, R. P. (1991). *Handbook for the study of parental acceptance and rejection* (rev. ed.). Storrs, CT: University of Connecticut, Center for the Study of Parental Acceptance and Rejection.
- Rohner, R. P., & Rohner, E. C. (1980). Antecedents and consequences of parental rejection: A theory of emotional abuse. *Child Abuse & Neglect, 4*, 189-198.
- Rosenberg, M. S. (1987). New directions for research on the psychological maltreatment of children. *American Psychologist, 42*, 166-171.
- Runtz, M. (1992). Coping strategies, social support, and recovery from physical and sexual maltreatment during childhood. Unpublished doctoral dissertation, University of Manitoba, Canada.
- Runtz, M., & Roche, D. (1999). Validation of the Trauma Symptom Inventory in a Canadian sample of university women. *Child Maltreatment, 4*, 69-80.
- Ryan, G. (1991). Juvenile sex offenders: Defining the population. In G. Ryan & S. Lane (Eds.), *Juvenile sexual offending: Causes, consequences, and corrections*. Lexington, MA: Lexington Books.
- Sanders, B., & Becker-Lausen, E. (1995). The measurement of psychological maltreatment: Early data on the Child Abuse and Trauma scale. *Child Abuse & Neglect, 19*, 315-324.
- Saunders, D. (1991). Procedures for adjusting self-reports of violence for social desirability bias. *Journal of Interpersonal Violence, 6*, 336-344.
- Schaefer, E. (1964). *Child's Report of Parent Behavior Inventory*. Washington, DC: National Institute of Health.
- Schotte, C., Maes, M., Cluydt, R., DeDoncker, D., & Cosyns, P. (1997). Construct validity of the Beck Depression Inventory in a depressive population. *Journal of Affective Disorders, 46*, 115-125.
- Sechrest, L. (1963). Incremental validity: A recommendation. *Educational and Psychological Measurement, 23*, 153-158.

- Sechrest, L. (1984). Reliability and validity. In A. S. Bellack, & M. H. Hersen (Eds.), *Research methods in clinical psychology*, New York: Pergamon.
- Sedlak, A. J., & Broadhurst, D. D. (1996). *Executive summary of the Third National Incidence Study of child abuse and neglect (NIS-3)*. Washington, DC: U.S. Department of Health and Human Services.
- Siegelman, M. (1965). Evaluation of Bronfenbrenner's questionnaire for children concerning parental problems. *Child Development*, *36*, 163-174.
- Spector, P. E. (1992). *Summated rating scale construction: An introduction*. Newbury Park, CA: Sage.
- Stein, D. J., Hollander, E. & Skodol, A. E. (1993). Anxiety disorders and personality disorders: A review. *Journal of Personality Disorders*, *7*, 87-104.
- Sternberg, K. J. & Lamb, M. E. (1991). Can we ignore context in the definition of child maltreatment. *Development and Psychopathology*, *3*, 87-92.
- Strahan, R., & Gerbasi, K. C. (1972). Short, homogeneous versions of the Marlow-Crowne (sic) Social Desirability Scale. *Journal of Clinical Psychology*, *28*, 191-193.
- Straus, M. A., & Gelles, R. (1986). Societal change and change in family violence from 1975-1985 as revealed by two National surveys. *Journal of Family Violence*, *48*, 465-479.
- Straus, M. A., & Gelles, R. (1988). How violent are American families? Estimates from the National Family Violence survey and other studies. In G. T. Hotaling, D. Finkelhor, J. T. Kirkpatrick, & M. A. Straus (Eds.), *Family abuse and its consequences: New directions in research* (pp. 14-36). London: Sage.
- Straus, M. A., & Gelles, R. (1990). *Physical violence in American families: Risk factors and adaptations to violence in 8,145 families*. New Brunswick, NJ: Transaction.
- Straus, M. A., Gelles, R., & Steinmetz, S. (1980). *Behind closed doors: Violence in the American family*. Garden City, NY: Doubleday.
- Tabachnick, B. G., & Fidell, L. S. (1989). *Using multivariate statistics* (2nd ed.). New York: Harper & Row.
- Toth, S. L. (1991). Psychological maltreatment: Can an integration of research, policy and intervention efforts be achieved? *Development and Psychopathology*, *3*, 103-109.
- Trocme, N., Tam, K. K., & McPhee, D. (1995). Correlates of substantiation of maltreatment in child welfare investigations. In J. Hudson & B. Galaway (Eds.) *Child welfare in Canada: Research and policy implications*. Toronto: Thompson.

- U.S. Department of Health and Human Services. (2000). *Child maltreatment 1998: Reports from the states to the National Child Abuse and Neglect Data System*. Washington, DC: U.S. Government Printing Office.
- Vissing, Y. M., Straus, M. A., Gelles, R. J., & Harrop, J. W. (1991). Verbal aggression by parents and psychosocial problems of children. *Child Abuse & Neglect, 15*, 223-238.
- Vondra, J. I., Kolar, A. B., & Radigan, B. L. (1992). Psychological maltreatment of children. In R. T. Ammerman & M. Hersen (Eds.) *Assessment of family violence: A clinical and legal handbook* (pp. 253-290). New York: Wiley.
- Wachtel, A. (1989). *Child abuse: A discussion paper*. Ottawa, ON: Health and Welfare Canada.
- Wald, M. (1961). *Protective services and emotional neglect*. Denver, CO: American Humane Association.
- Wald, M. (1980). Thinking about public policy toward abuse and neglect of children: A review of before the best interests of the child. *Michigan Law Review, 78*, 645-693.
- Wald, M. (1991). Defining psychological maltreatment: The relationship between questions and answers. *Development and Psychopathology, 3*, 3-18.
- Walker, E., Newman, E., Koss, M., & Bernstein, D. (1997). Does the study of victimization revictimize the victims? *General Hospital Psychiatry, 19*, 403-410.
- Wiese, D., & Daro, D. (1995). *Current trends in child abuse reporting and fatalities: The results of the 1994 Annual Fifty State Survey*. Chicago: National Committee for the Prevention of Child Abuse.
- Williams, L. (1994). Recall of childhood trauma: A prospective study of women's memories of child sexual abuse. *Journal of Consulting and Clinical Psychology, 62*, 1167-1176.
- Wyatt, G. E., & Powell, G. J. (1990). Identifying the lasting effects of child sexual abuse: An overview. In G. E. Wyatt and G. J. Powell (Eds.), *Lasting effects of child sexual abuse* (p. 11-17). Newbury Park, CA: Sage.
- Zigler, E., & Hall, N. (1991). Physical abuse in America: Past, present, and future. In D. Cicchetti & V. Carlson (Eds.), *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect*. Cambridge: Cambridge University Press.

APPENDIX A

Subcategories and Definitions of Psychological Maltreatment Used in the Original Study and in the Present Study ^a

1. ***Rejecting***: active expressions of rejection, as opposed to passively ignoring a child (*e.g.*, telling a child that he or she is a burden or is unwanted or unloved);
2. ***Degrading***: actions that depreciate the child, including verbal derogation (*e.g.*, insulting, ridiculing, publicly humiliating);
3. ***Isolating***: acts that separate the child from others (*e.g.*, severely limiting or forbidding 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 others or to himself or herself (*e.g.*, encouraging dishonest, violent, or criminal behavior);
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.*, emotional detachment and disinterest in the child, ignoring a child's attempts to interact);
6. ***Exploiting (Nonsexual)***: situations in which a child is used for advantage, other than sexually (*e.g.*, requiring the child to act as a servant or as a companion);
7. ***Verbal Terrorism***: verbal threats directed toward the child of harm or of other severely negative or frightening consequences (*e.g.*, screaming or cursing at a child, threatening to physically harm a child);
8. ***Physical Terrorism***: physical behaviors that are intended to seriously frighten or intimidate a child but where emotional versus physical harm to the child is the primary intention or result (*e.g.*, throwing or breaking objects when angry with the child, chasing a child or touching or handling her or him in a rough way that is frightening);

APPENDIX A (Continued)

9. ***Witness to Violence***: Physically violent parental behaviors directed toward someone other than the child when the child is present (*e.g.*, physically fighting with or beating a family member or someone who is not a family member);
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.*, having unpredictable and changing expectations of the child, failing to do important things that were promised);
11. ***Controlling or Stifling Independence***: The parent exerts excessive control over the child's behaviors, thoughts, opinions, and decisions. Such control serves to stifle the child's attempts to think or act independently (*e.g.*, expressing anger or hostility when the child expresses an opinion, completely disregarding the child's input into decisions that affect her or him);
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 those in which parents were unable to provide adequate care due to financial hardship (*e.g.*, failing to provide proper clothing or nourishment for the child when the means to do so are available, failing to care for the child's injuries or provide medical care when he or she is physically hurt or ill).

^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 (1991);

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 adapted from Briere (1992b); and the definitions provided for subcategories 11 and 12 are were generated by the present investigator.