Patterns of Relatedness, Depressive Symptomatology, and Perceived Competence in Maltreated Children

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An attachment theory framework is applied toward understanding the emergence of depressive symptomatology and lower perceived competence in maltreated and nonmaltreated children. Hypotheses that maltreated children with nonoptimal patterns of relatedness evidence elevated depressive symptomatology and lower competence, whereas nonmaltreated children with optimal or adequate patterns of relatedness exhibit the least depressive symptomatology and higher competence, were confirmed. Additionally, differentiations between maltreated children with and without optimal or adequate patterns of relatedness emerged, suggesting that relatedness may mitigate against the adverse effects of maltreatment. Moreover, sexually abused children with confused patterns of relatedness evidenced clinically significant depressive symptomatology. Results are discussed with regard to mechanisms that contribute to adaptation or maladaptation in children with negative caregiving histories.

As knowledge on the sequelae of child maltreatment has burgeoned, investigators have become increasingly interested in examining the links between maltreatment and psychopathology. Although researchers have documented the negative effects of child maltreatment, including the emergence of both internalizing and externalizing symptomatology, less work has been conducted on the mechanisms that may be contributing to various manifestations of disorder in children who have been maltreated.

An especially rich body of empirical research that can be applied toward examining the effects of maltreatment on the emergence of psychopathology has emanated from the area of attachment theory (Bowlby, 1969/1982; Main, Kaplan, & Cassidy, 1985). According to this conceptual framework, the experience of maltreatment during childhood may lead to the development of negative representational models of attachment figures, the self, and the self in relation to significant others (Cicchetti, 1991; Crittenden & Ainsworth, 1989). Because self-development also can be viewed as having its roots in early caregiving histories, the representational models that emerge from the attachment relationship may be the mechanism whereby continuity in views regarding the self and other is maintained (Sroufe & Fiesler, 1988). These representations, in turn, may influence the individual's future social interactions.

Research conducted with normative samples of mother–infant dyads has revealed that securely attached infants are more likely to resolve subsequent issues of development adaptively (Sroufe, 1983; Sroufe, Carlson, & Schulman 1993). Conversely, insecurely attached infants have been shown to evidence difficulties in later childhood, including increased dependence, less social competence, and less ego resilience (Elicker, Englund, & Sroufe, 1992; Urban, Carlson, Egeland, & Sroufe, 1991). Investigations such as these suggest a coherence in individual adaptation over time, with attachment relationships in infancy playing a significant role in the developmental process. Similar conclusions about the importance of attachment have been documented with regard to the emergence of behavior problems and emotional difficulties in children who are at risk for insecure attachment because of the presence of maltreatment, parental psychopathology, or parental substance abuse (see Cicchetti, Toth, & Lynch, 1995).

Because child maltreatment reflects an extreme of caregiving dysfunction, much work has been directed toward examining attachment relationships and their links with adaptation in this population (Cicchetti, 1989; Erickson, Egeland, & Pianta, 1989). Beginning in infancy, a greater percentage of insecure attachment relationships with primary caregivers has been documented in maltreated youngsters (Crittenden, 1988). Typically, these insecure attachments are atypical. They include “disorganized–disoriented” (Type D) and avoidant–ambivalent (Type A-C) relationships (Carlson, Cicchetti, Barnett, & Braunwald, 1989; Lyons-Ruth, Connell, Znhal, & Stahl, 1987; Main & Solomon, 1990), and they have been linked to child behavior problems (Easterbrooks, Davidson, & Chazan, 1993;
Lyons-Ruth, Alpern, & Repacholi, 1993). As maltreated children grow older, it is less certain that atypical patterns of attachment will continue to occur with the same frequency that they do in infancy (Cicchetti et al., 1995).

Because early mother-child attachment relationships predetermine other relationships and, therefore, are considered to be particularly salient, the representational model formed as a result of maternal attachment may serve as a template for later relationships (Bowlby, 1969/1982). An examination of concordance among relationships thus provides an entree into the nature of representation across relationship figures. In a study of youngsters ranging from infants to 4-year-olds, Howes and Hamilton (1992) found little concurrent or longitudinal evidence for relationship concordance between mothers and teachers in their largely secure sample. This suggests that secure children are more likely to use a specific representational model based on interactions with a given relationship figure than they are to generalize a representational model to novel situations. Crittenden's (1990) description of open versus closed and working versus nonworking representational models is relevant here. According to Crittenden, open models are open to new interpretations, whereas closed models result in the interpretation of all behavior in accord with the existing model. Moreover, working models allow for the cognitive generation of alternate responses, whereas nonworking models preclude cognitive exploration of behavioral alternatives. Thus, consistent with Crittenden's (1990) framework, securely attached children can be viewed as having a working model as opposed to a nonworking model of relationships. However, with a sample of maltreated infants and toddlers, Howes and Segal (1993) found that insecure attachment relationships with alternative caregivers were just as likely to occur as would be expected in the mother-child relationship, a finding that suggests the presence of concordance. In a study of older maltreated children, Lynch and Cicchetti (1991) also found substantial concordance among reports of relationships with mother, teacher, and best friend, regardless of maltreatment status. Because even the nonmaltreated children in the Lynch and Cicchetti (1991) sample evidenced a high percentage of insecurity, it appears that findings are coalescing to suggest that insecure maternal attachment relationships may result in a greater likelihood of concordance with alternate relationship figures, suggesting that these representational models are nonworking and likely to be generalized into future relationships.

In addition to issues related to the stability of attachment and concordance among relationships, the occurrence of secure attachments in maltreated children also is interesting. Because not all maltreated children evidence insecure attachments, consideration must be given to elucidating factors that result in secure attachment, despite histories of maltreatment. As children grow older and derive input from a wider social arena, it becomes increasingly important to understand the effects of these experiences on attachment and adaptation.

Although the majority of empirical work has focused on attachment in the early years of life, theoreticians and researchers have increasingly conceptualized attachment as remaining critical to the ongoing adaptational strivings of individuals throughout the life span (Ainsworth, 1989). Despite the preponderance of evidence on insecure attachment relationships in maltreated children during infancy and the preschool years, and despite links with difficulties in a range of areas of development, considerably less work has been conducted on attachment during the school-age years. This is due, at least in part, to the paucity of measures of attachment for the period between the school-age years and adolescence. Because children also may form attachments to individuals other than their parents as their network of social relationships expands, methods that provide an assessment of attachments other than those between parent and child are important.

In efforts to elucidate connections between a history of negative caregiving and insecure attachment relationships during the school-age years, Lynch and Cicchetti (1991) administered a self-report measure assessing conceptualizations of relationships to 215 maltreated and nonmaltreated children, ranging in age from 7 to 13 years. The Relatedness Scales that were administered are considered to yield an internal representational model of the relationship figure and of the self in relation to that figure. Theoretically, children's responses to these scales are viewed as consistent with attachment and self-system theory (Connell & Wellborn, 1991; Lynch & Cicchetti, 1991). Lynch and Cicchetti (1991) found that maltreated children described more "confused" and less "optimal" patterns of relatedness with a variety of individuals, including their mothers, teachers, peers, and best friends than did nonmaltreated comparison children. Although the assessment of these patterns of relatedness cannot be equated with attachment per se, the fact that maltreated children evidence a preponderance of insecure attachment relationships in infancy and toddlerhood and that nonoptimal relationship patterns are present in school-age maltreated children suggests the presence of a maladaptive pathway from insecure attachment in the early years to the development of negative representational models of relationship figures in later childhood.

However, the use of self-report measures for assessing attachment and adaptation also raises a number of issues that must be considered. According to Shedler, Mayman, and Manis (1993), reliance on self-report measures of functioning may result in a failure to distinguish between true mental health and the facade of mental health because of the presence of psychological defenses. With respect to attachment and mental health, the concerns expressed by Shedler and his colleagues become even more complex because certain forms of attachment organization may increase the likelihood of defensiveness. For example, Dozier and Kobak (1992) found that adolescents with dismissing strategies of attachment evidenced heightened galvanic skin response levels during questions on the Adult Attachment Interview that dealt with separation and rejection. Thus, although verbally minimizing the effect of separation and loss, the psychophysiological reactions of dismissing individuals suggests otherwise. More recently, Dozier and Lee (1995) found that individuals who evidenced hyperactivating strategies of attachment reported more psychiatric symptoms than did individuals who relied on deactivating or dismissing strategies of attachment. Importantly, however; experts rated individuals with deactivating strategies as more symptomatic than those with hyperactivating strategies. Results such as these suggest that the "truth" of self-report measures of functioning may vary as a
function of type of attachment organization, with those who have dismissing strategies tending to underencourage symptoms. In addition to findings of insecurity among maltreated children, links with deficits in their emerging self-systems also have been noted. Specifically, maltreated toddlers with insecure attachment relationships have been shown to use less internal state language and to talk less about themselves and their activities than nonmaltreated toddlers (Beeghly & Cicchetti, 1994). Maltreated infants also have shown to evidence neutral or negative affect in response to their rouge-marked mirror images, unlike the positive affect typically exhibited by nonmaltreated youngsters upon recognizing themselves (Schneider-Rosen & Cicchetti, 1991). Thus, the presence of insecure attachment relationships in conjunction with perturbations in the emerging self-systems of maltreated youngsters suggest that later developmental deviations and psychopathology may well evolve from these early difficulties.

Findings revealing the presence of negative representations of the self in maltreated children also have been mounting. Support for this view derives primarily from research on maltreated children that has revealed lower self-esteem (Brown & Finckelhor, 1986; Egeland, Sroufe, & Erickson, 1983; Kaufman & Cicchetti, 1989), impaired perceived competence (Vondra, Barnett, & Cicchetti, 1989), and poor social functioning (Egeland et al., 1983; George & Main, 1979) when compared with nonmaltreated children. A number of investigators also have found that maltreated children evidence more symptoms of depression than nonmaltreated children (Kazdin, Moser, Colbus, & Bell, 1985; Toth, Manly, & Cicchetti, 1992).

These findings of increased depressive symptomatology in maltreated children, taken in conjunction with studies documenting insecure attachment relationships among maltreated children, suggest that insecure attachment relationships and the resulting negative representational models of the self and of the self in relation to others may be a central mechanism contributing to the emergence of disturbances in children who have been maltreated. In fact, investigators are directing increased attention toward elucidating the effect of various types of maltreatment experiences on the etiology of self disorders (Alexander, 1993; Herman & van der Kolk, 1987; Toth et al., 1992).

Specifically, considerable effort has been directed toward examining the effects of sexual abuse on self-pathology. With respect to long-term effects of childhood sexual abuse, a number of adult psychiatric outcomes have been identified, including borderline personality disorder, eating disorders, multiple personality disorder, somatization disorder, and substance abuse (see Putnam & Trickett, 1993). Although seemingly reflecting disparate outcome, Cole and Putnam (1992) described a number of common core psychopathological features, including disturbances in sense of self. With respect to the acute impact of childhood sexual abuse, research is less clear; with as many as half of sexually abused children seeming to be asymptomatic on initial evaluation (Kendall-Tackett, Williams, & Finckelhor, 1993). Of children evidencing problems, common symptoms include sexualized behavior, post-traumatic stress disorder, fears, depression, low self-esteem, and behavior problems, to name only a few (Kendall-Tackett et al., 1993). Whereas the impact of sexual abuse on self-representations may not be evident in young children, evidence is mounting that older sexually abused youngsters suffer from disturbances in their self-systems (Calverley, Fischer, & Ayoub, 1994; Stovall & Craig, 1990). Unfortunately, because it is rare for investigators to examine self-development in maltreated children who have experienced diverse types of maltreatment in a single study (e.g., neglect, physical abuse, sexual abuse), it is difficult to ascertain whether self-related symptomatology is specific to a single type of maltreatment, or a result of maltreatment more generally.

In this investigation, we applied an attachment-theory-based framework to examine the possible mechanisms contributing to increased depressive symptomatology and impaired perceived competence in maltreated and demographically comparable nonmaltreated children.

In accord with previous research on the effects of maltreatment, we expected that maltreated children would evidence increased depressive symptomatology and lower competence ratings than would nonmaltreated children. However, in view of the important role of relationships suggested by attachment theory, we were interested in examining patterns of relatedness in conjunction with experiences of maltreatment. Therefore, we hypothesized that differences in symptomatology would emerge among maltreated children depending on the presence or absence of optimal—adequate patterns of relatedness with mother. Specifically, we expected that maltreated children with nonoptimal patterns of relatedness with mother would evidence more symptomatology than would maltreated children with optimal—adequate patterns of relatedness. Moreover, nonmaltreated children with optimal—adequate patterns of relatedness with mother were expected to evidence less depressive symptomatology and higher competence than all other groups of children. In view of possible similarities between the Type D attachment of infancy and confused patterns of relatedness, we expected that children with confused patterns might be the most symptomatic. Although we were interested in the effects of subtype of maltreatment on outcome, specific hypotheses were not made. We also were interested in examining concordance among patterns of relatedness with mother, teacher, and best friend. In view of previous findings on concordance among high-risk populations with increased rates of insecure attachment, we anticipated that maltreated children would be likely to exhibit substantial concordance among relationships.

Method

Sample Description

A total of 92 children participated in this investigation, including 32 children from families who were identified through Department of Social Services (DSS) records as maltreating their children and 40 children from comparison families who had no history of maltreatment. The children in this study ranged in age from 8 to 12 years old, with a mean age of 9.53 and 9.45 for maltreated and nonmaltreated children, respectively. Approximately 70% of the sample consisted of African American and Hispanic children, and 43% of the sample was female. The maltreated and nonmaltreated groups did not differ in terms of gender, ethnic minority status, poverty status, or single-parent family structure.

All children in the maltreatment group were from families who had indicated maltreatment reports on file with the county DSS, indicating that the presence of maltreatment had been confirmed after an investigation by responsible authorities. All DSS records were obtained according to the Barnett, Manly, and Cicchetti (1993) maltreatment nosological
system, which revealed that the children in the present sample had experienced a range of maltreatment, including physical abuse (n = 18), neglect (n = 20), and sexual abuse (n = 14). Forty-four percent of children in the present sample had experienced two or more types of maltreatment. This co-occurrence of subtypes of abuse is consistent with previous studies that have found that single types of abuse are rare (Cicchetti & Rizley, 1981). Therefore, a primary designation of maltreatment was determined based on a hierarchy of the degree to which the form of maltreatment violates societal norms. Any child experiencing sexual abuse was categorized as sexually abused; any physically abused child who was not sexually abused was classified as physically abused; any child who was neglected but not physically or sexually abused was classified as neglected.

The nonmaltreated comparison group of children comprised children drawn from families who were receiving public assistance (Aid to Families With Dependent Children [AFDC]). Both maltreated and nonmaltreated children were determined to be from the lowest socioeconomic strata as measured by the Hollingshead Four-Factor Index score, with mean scores of 18.12 and 19.54 for nonmaltreated and maltreated children, respectively (Hollingshead, 1975). Thus, because of the risk factors that routinely accompany poverty, even the nonmaltreated children were a high-risk sample. The nonmaltreatment status of all comparison children was verified by checking the state registry of maltreatment cases, as well as the records for receipt of preventive services.

Procedure

All children were interviewed individually in their homes by research assistants who were unaware regarding group status and hypotheses of the investigation. Informed consent to participate was given by parents of all children, and the children also agreed to be interviewed.

Measures

The following measures were administered individually to all children. All questionnaires were read aloud as children followed along to ensure adequate comprehension.

Relatedness Scales (Wellborn & Connell, 1987). This 17-item questionnaire contains items from the Rochester Assessment Package for Schools. The Relatedness Scales were used to gain information regarding children's relationships with their mother, their teacher, and their best friend. For each relationship figure being examined, children are asked to rate on a 4-point scale items such as "When I'm with ______, I feel happy." Each relationship figure was queried separately.

The Relatedness Scales have two subscales that measure children's feelings of relatedness to specific others: Emotional Quality and Psychological Proximity Seeking. Emotional quality refers to the positive and negative emotions that children report with regard to a specific relationship figure. For example, "When I'm with my mother, I feel loved," reflects positive emotional quality. The Psychological Proximity Seeking subscale contains items that tap the degree to which children wish they were psychologically closer to their relationship partner. For example, "I wish my mother understood me better," is considered to reflect high psychological proximity seeking. In general, the more positive the quality of emotion that a child reports, the less the child reports needing to feel psychologically closer to that individual. Thus, if a child reports feeling loved by the mother, one would not expect the child to report the need to be better understood by the mother.

Individual patterns of relatedness are obtained by examining the configuration of each child's scores on both the emotional quality and psychological proximity seeking dimensions of relatedness for a particular relationship figure. Preliminary normative work conducted by Lynch and Cicchetti (1991) has yielded five prototypical patterns of relatedness, including the following: (a) optimal—higher than average levels of positive emotion and lower than average amounts of proximity seeking, reflective of feeling secure and satisfied with the degree of closeness; (b) adequate—average levels of emotional quality and proximity seeking; (c) deprived—lower than average levels of emotional quality but higher than average amounts of proximity seeking, reflective of wanting to feel closer to the relationship figure despite describing the relationship as characterized by feelings of negativity and insecurity; (d) disengaged—lower than average levels of emotional quality and lower than average proximity seeking, reflecting negative feelings toward the relationship figure and the lack of desire to be closer; and (e) confused—high levels of emotional quality in conjunction with high amounts of proximity seeking, reflecting the need for more psychological proximity despite feeling emotionally positive and secure with the relationship figure.

In the present study, optimal and adequate patterns of relatedness were considered to be similar to "secure" relationships, whereas nonoptimal relatedness patterns, including deprived, disengaged, and confused were viewed as similar to "insecure" relationships (Cicchetti et al., 1993). Within the insecure categorization, deprived and disengaged patterns are considered to be similar to anxious-ambivalent and anxious-avoidant attachments, respectively, whereas the confused pattern is consistent with atypical attachments. For purposes of analyses, deprived—disengaged is viewed as a single pattern. Because atypical patterns are analyzed separately in the literature, we chose to examine the confused category as a specific type of insecure pattern.

Children's Depression Inventory (CDI; Kovacs, 1987). The CDI contains 27 items that assess the affective, cognitive, and behavioral concomitants of depression. Scores on the CDI range from 0 to 54, with higher scores indicating more severe depressed symptomatology. Normative data reveals that 7- to 12-year-old children obtain a mean of 10 on the CDI (Kovacs, 1992). Typically, scores greater than 12 on the CDI are thought to reflect mild depression, whereas scores of 15 or above have been equated with clinically significant levels of depression (Smucker, Craighead, Wilcox, Craighead, & Green, 1986).

Self-Perception Profile For Children (Harter, 1985). This scale assesses perceived competence in five domains of functioning, including scholastic competence, social acceptance, athletic competence, physical appearance, and behavioral conduct. For the five competence domains, ratings of how important the child views the area also were obtained. We used these importance ratings as weights for the perceived competence scales, following Harter's (1983) assumption that one's self-worth is more likely to be affected by assessments of competence in areas considered to be important. These competencies weighted by importance (actully multiplicative products) were used in all subsequent analyses. In this investigation, we examined scholastic competence, social acceptance, and behavioral conduct.

Peabody Picture Vocabulary Test—Revised (PPVT-R; Dunn & Dunn, 1981). This measure of receptive vocabulary correlates highly with several measures of intelligence, and it was used as an estimate of cognitive functioning.

Results

Preliminary Analyses

Maltreated and nonmaltreated children obtained mean standard scores on the PPVT-R of 93.06 and 91.57, respectively. Because the groups did not differ on receptive vocabulary, no further statistical procedures were necessary and this measure was not examined again.

Unless otherwise stated, only significant results are reported for all analyses. When sample size permits, separate analyses are conducted on both general maltreatment status and subtype distinctions.
Group Differences on Maltreatment Status and Subtype

To determine whether maltreated and nonmaltreated children differed on areas of perceived competence that they considered to be important and on self-reported depressive symptomatology, we conducted a one-way multivariate analysis of variance (MANOVA). This analysis revealed a main effect for maltreatment status, $F(4, 87) = 2.67, p < .04$. Univariate analyses of variance (ANOVAs) indicated that the maltreated and nonmaltreated groups differed significantly in terms of scholastic competence, $F(1, 90) = 4.79, p < .03$; social acceptance, $F(1, 90) = 5.49, p < .02$; and behavioral conduct, $F(1, 90) = 5.19, p < .03$. Maltreated children consistently reported lower perceived competence in all areas. A trend toward significance on the CDI, $F(1, 90) = 2.53, p < .12$, also suggested that maltreated children tended to report more depressed symptomatology ($M = 9.29$) than nonmaltreated children ($M = 6.75$).

A one-way MANOVA also was conducted to examine possible differences among subtypes of maltreatment. This analysis revealed a main effect for subtype, $F(12, 225.18) = 2.06, p < .02$. The univariate ANOVAs that constitute the model revealed effects for the CDI, $F(3, 88) = 4.71, p < .004$, and behavioral conduct, $F(3, 88) = 3.74, p < .01$, with a marginal effect for scholastic competence, $F(3, 88) = 2.51, p < .06$. Tukey's honestly significant difference post hoc comparison indicated that sexually abused children reported more depressive symptomatology ($M = 14.79$) than nonmaltreated children ($M = 6.75$), neglected children ($M = 7.80$), or physically abused children ($M = 6.67$). Sexually abused children also reported lower competence on behavioral conduct ($M = 8.58$) than comparison children ($M = 12.18$).

Group Differences on Maltreatment Status or Subtype and Relatedness to Mother

A two-way MANOVA was conducted, with maltreatment status (maltreated vs. nonmaltreated) and relatedness to mother (optimal–adequate vs. disengaged–deprived vs. confused) as the independent variables. A main effect was obtained for relatedness, $F(8, 64) = 2.07, p < .04$. The univariate ANOVAs revealed significant effects for the CDI, $F(5, 85) = 3.44, p < .007$, and for social acceptance, $F(5, 85) = 2.68, p < .03$. Tukey post hoc comparisons suggested that children with confused patterns of relatedness reported increased depressive symptomatology ($M = 11.25$) when compared with children who reported optimal–adequate patterns of relatedness ($M = 6.20$).

For social acceptance, children with disengaged–deprived patterns of relatedness reported less competence ($M = 5.63$) than either children having confused ($M = 7.41$) or optimal–adequate ($M = 7.15$) relatedness with mother.

In examining maltreatment subtype and relatedness to mother, a significant main effect was obtained for subtype, $F(12, 201.37) = 1.95, p < .03$, and a marginally significant effect for relatedness, $F(11, 79) = 1.82, p < .08$. However, these main effects are qualified by a significant interaction between subtype and relatedness, $F(24, 266.34) = 1.73, p < .02$. An examination of the univariate ANOVAs revealed significant effects with respect to depressive symptomatology, $F(11, 79) = 5.93, p < .0001$. Although the small sample sizes in some of the cells precluded conducting post hoc analyses and suggest caution in interpretation, interesting patterns do emerge. Specifically, sexually abused children with confused patterns of relatedness reported the highest level of depressed symptomatology ($M = 27.80$), even when compared with sexually abused children with disengaged–deprived patterns of relatedness ($M = 10.00$) or sexually abused children with optimal–adequate patterns of relatedness ($M = 6.33$). Means and standard deviations are presented in Table 1.

Group Differences on a Composite of Maltreatment Status and Patterns of Relatedness

In view of the apparent role of both maltreatment status and patterns of relatedness in contributing to child functioning, further analyses were conducted to clarify this relationship. To examine the role of patterns of relatedness in either buffering or contributing to the emergence of depressive symptomatology and impaired perceived competence, we created a priori groups where optimal–adequate, disengaged–deprived, and confused patterns of relatedness were composited with maltreatment status. Further differentiations between disengaged and deprived patterns could not be made because of limitations imposed by sample size. Sample size also precluded further breakdown by subtype of maltreatment. Separate analyses were conducted for maltreatment status and relatedness to mother, teacher, and best friend.

When focusing on relationship with mother, the maltreatment and relatedness composite was significant, $F(20, 272.91) = 1.71, p < .03$. Univariate ANOVAs revealed effects for CDI, $F(5, 85) = 3.44, p < .007$, and for social acceptance, $F(5, 85) = 2.68, p < .03$. Post hoc comparisons suggested that maltreated children with confused patterns of relatedness reported significantly more depressed symptomatology ($M = 15.07$) than nonmaltreated children with confused relatedness ($M = 7.43$), maltreated children with optimal–adequate relatedness ($M = 6.72$), or nonmaltreated children with optimal–adequate relatedness ($M = 5.57$). Post hoc differences were not obtained on social acceptance.

In examining relationship with teacher, the maltreatment and relatedness composite was marginally significant, $F(20, 272.91) = 1.59, p < .06$, with univariate significance on scholastic competence, $F(5, 85) = 2.35, p < .05$, and for social acceptance, $F(5, 85) = 2.62, p < .03$. Because post hoc significance was not attained, means and standard deviations are not presented.

When looking at relationship with best friend, the maltreatment and relatedness composite was significant, $F(20, 269.60) = 1.80, p < .02$. Univariate ANOVAs revealed effects for CDI, $F(5, 84) = 3.33, p < .009$, and for behavioral conduct, $F(5, 84) = 3.22, p < .01$. Post hoc comparisons suggested that nonmaltreated children with optimal relatedness to best friend reported less depressive symptomatology ($M = 4.13$) than nonmaltreated children with disengaged–deprived relatedness ($M = 12.78$). Maltreated children with confused patterns of relatedness reported more depressed symptomatology ($M = 11.00$) than nonmaltreated children with optimal–adequate relatedness ($M = 4.13$). Lower perceived competence also was evidenced on behavioral conduct for maltreated children with confused relatedness ($M = 9.35$) than for nonmaltreated children.
with optimal relatedness (M = 13.46). Means and standard deviations are presented in Table 2.

Concordance Among Relationships

To determine whether relatedness with mother served as a template for other relationships, we examined concordance among relationships. Regardless of maltreatment status, 36% of children with a nonoptimal relationship with their mother also had a nonoptimal relationship with their teacher and their best friend, thus demonstrating full concordance. Twenty-two percent of children who had an optimal–adequate relationship with their mother also had an optimal–adequate relationship with both their teacher and their best friend, again demonstrating full concordance and resulting in 58% of all children evidencing full concordance among all relationships. An additional 21% of all children had an optimal–adequate relationship with their mother and at least one other relationship figure. Only 8% of children had an optimal–adequate relationship only with their mothers, whereas 11% had a nonoptimal relationship with their mother and an optimal–adequate relationship with either teacher or best friend. Only 2% of children who had a nonoptimal relationship with their mother reported an optimal–adequate relationship with both teacher and best friend. These results suggest that children who have nonoptimal relationships with their mothers are less likely to have an optimal–adequate relationship with someone else than are children who have an optimal–adequate relationship with their mothers, χ²(2, N = 90) = 33.52, p < .001.

Discussion

This study serves as an important step in beginning to elucidate the role of relationships in the emergence of psychopathology in a group of children at risk due to histories of negative caregiving. The results of this investigation lend partial support to the claims of attachment theorists that some forms of psychopathology may have roots in deviations in the ontogenesis of the attachment behavioral system or in failures associated with its continued development throughout the life course (Bowlby 1977a, 1977b). Additionally, support is provided for the attachment theory perspective that suggests links between the quality of early experiences with caregivers and the later capacity to form and sustain affectional bonds (Bowlby, 1988). However, in the present study results seem largely attributable to those children who experienced sexual abuse.

Results suggest that when compared with nonmaltreated children, maltreated children exhibit lower perceived competence on the subscales of scholastic competence, social acceptance, and behavioral conduct. When examining subtypes of maltreatment, children who had experienced sexual abuse were more likely to report depressive symptomatology and impaired behavioral conduct than were nonmaltreated children. Although differences on symptomatology did emerge between maltreated and nonmaltreated children, these findings were due largely to the children who had been sexually abused.

The role of relationship history in buffering or exacerbating the emergence of maladaptation was examined more elaborately by using relatedness as an attachment-like construct. In investigating the nature of the link between maltreatment status and relatedness to mother, patterns of relatedness emerged as a significant variable that was contributing to depressive symptomatology and impaired perceptions of social acceptance. Interestingly, children with confused patterns of relatedness evidenced the highest level of depressive symptomatology, whereas impaired social acceptance was present in children reporting disengaged–deprived patterns of relatedness. The findings with
Table 2
Means and Standard Deviations for Composited Maltreatment Status and Relatedness to Mother and Best Friend for Dependent Measures

<table>
<thead>
<tr>
<th>Relatedness to mother and best friend</th>
<th>Children’s Depression Inventory</th>
<th>Scholastic competence</th>
<th>Social acceptance</th>
<th>Behavioral conduct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
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<tr>
<td>Relatedness to mother</td>
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<tr>
<td>Optimal—adequate</td>
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<td>Maltreated (n = 25)</td>
<td>6.72 (4.60)</td>
<td>9.73 (3.07)</td>
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<td>11.14 (3.37)</td>
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<td>5.57 (5.05)</td>
<td>10.86 (3.22)</td>
<td>8.37 (3.13)</td>
<td>12.30 (3.70)</td>
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<td>Maltreated (n = 12)</td>
<td>8.67 (4.80)</td>
<td>8.40 (3.63)</td>
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<td>Nonmaltreated (n = 5)</td>
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<td>10.00 (2.88)</td>
<td>4.12 (1.04)</td>
<td>2.40 (3.37)</td>
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<td>Confused</td>
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<tr>
<td>Maltreated (n = 14)</td>
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<td>8.57 (3.49)</td>
<td>6.40 (3.76)</td>
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<tr>
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<td>8.43 (4.52)</td>
<td>11.91 (3.44)</td>
</tr>
<tr>
<td>Relatedness to best friend</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optimal—adequate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maltreated (n = 28)</td>
<td>7.46 (6.27)</td>
<td>9.46 (3.19)</td>
<td>6.03 (2.67)</td>
<td>10.77 (3.12)</td>
</tr>
<tr>
<td>Nonmaltreated (n = 16)</td>
<td>4.13 (2.05)</td>
<td>10.91 (3.33)</td>
<td>7.44 (3.42)</td>
<td>15.46 (2.86)</td>
</tr>
<tr>
<td>Disengaged—deprived</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maltreated (n = 10)</td>
<td>9.80 (4.42)</td>
<td>8.47 (2.81)</td>
<td>5.65 (2.26)</td>
<td>11.78 (2.65)</td>
</tr>
<tr>
<td>Nonmaltreated (n = 9)</td>
<td>12.78 (8.66)</td>
<td>8.53 (2.24)</td>
<td>7.24 (4.56)</td>
<td>9.34 (3.34)</td>
</tr>
<tr>
<td>Confused</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maltreated (n = 12)</td>
<td>11.00 (10.44)</td>
<td>8.51 (4.07)</td>
<td>7.58 (3.47)</td>
<td>9.35 (4.06)</td>
</tr>
<tr>
<td>Nonmaltreated (n = 15)</td>
<td>5.93 (3.90)</td>
<td>11.53 (3.74)</td>
<td>8.67 (3.66)</td>
<td>12.51 (3.41)</td>
</tr>
</tbody>
</table>

Note. Within each relationship, means with different subscripts were significantly different.

respect to confused patterns are compatible with the “over-bright” characterizations of children with atypical attachment organizations (Crittenden & DiLalla, 1988; Main & Solomon, 1990). Specifically, we suggest that the children in the present study who evidenced confused patterns of relatedness may possess similar “overbright” presentations that lead them to be accepted by peers, although they continue to report depressive symptomatology. In contrast, the impaired social acceptance reported by children with disengaged—deprived patterns of relatedness is consistent with the peer difficulties and social withdrawal frequently noted among children having insecure—avoidant and insecure—ambivalent attachment relationships with their primary caregiver (Rubin, Hymel, Mills, & Rose-Krasnor, 1991).

In this examination of subtypes of maltreatment, a striking finding emerged, with sexually abused children with confused patterns of relatedness reporting extremely elevated levels of depressive symptomatology, compared with other sexually abused children. Thus, our findings suggest that, although some differences are present between maltreated and nonmaltreated children independent of relatedness, increased clarity is obtained when patterns of relatedness are considered in conjunction with maltreatment status. In this regard, the relative lack of symptomatology in physically abused or neglected children is puzzling, and discrepant with previous research that has found increased depressive symptomatology in physically abused children (Kazdin et al., 1985; Toth et al., 1992). In the present investigation, children were interviewed in their homes and it is possible that this context contributed to hypervigilance in physically abused children, resulting in the denial of symptomatology. The findings of the present study underscore the importance of examining the sequelae of various subtypes of maltreatment within single investigations.

For further clarification of the nature of the link between maltreatment status and patterns of relatedness, a composite of maltreatment and patterns of relatedness was examined for each relationship figure. These analyses provided support for our hypothesis that differences between maltreated children with and without optimal—adequate patterns of relatedness would emerge. Specifically, maltreated children with confused patterns of relatedness with mother reported more depressed symptomatology than maltreated children with optimal—adequate relatedness to mother. Other relationship figures did not reveal these differences among maltreated children, although some interesting differences emerged among nonmaltreated children with different patterns of relatedness to their best friend. Nonmaltreated children with optimal—adequate relatedness to best friend reported less depressive symptomatology than nonmaltreated children with disengaged—deprived patterns of relatedness to best friend.

Although they must be viewed cautiously because of limitations related to sample size, our results with respect to sexual abuse are especially striking. In examining maltreatment subtype, sexually abused children reported depressive symptomatology in a range consistent with mild depression, unlike the nonclinically significant symptom level endorsed by all other children. The sexually abused children also reported lower competence on behavioral conduct. When factoring in patterns of relatedness to mother, sexually abused children who reported confused patterns of relatedness evidenced extremely elevated
levels of depressive symptomatology that were consistent with depression considered to be of clinical significance. This contrasted markedly with the nonclinical level of symptomatology endorsed by sexually abused children who reported optimal–adequate relatedness to mother. Thus, the present findings provide an interesting view on the sequelae of childhood sexual abuse and may be helpful in accounting for the varied outcomes that have been described in childhood victims of sexual abuse. Outcome for these children is likely to be a function of the perpetrator of abuse and of the protection or lack thereof that the sexually abused child perceives from their primary caregiver.

Our findings with regard to concordance across relationships lend support for the view that the quality of early relationships with the primary caregiver drives future expectations regarding social interactions. Substantial concordance was revealed across relationship figures; however, differences were not obtained as a function of maltreatment status. The fact that 58% of children evidenced concordance across all relationship figures, and that an additional 21% evidenced concordance between mother and one other relationship figure, is striking. This high rate of concordance suggests that the children in this sample generalized their maternally based representational model into subsequent relationships, a view consistent with Crittenden’s (1990) discussion of nonworking representational models. However, the findings on concordance may be attributable to common method variance, because all three relationship ratings were based on self-report. Conversely, the findings on lack of concordance are not subject to this limitation. The fact that only 11% of children who reported a nonoptimal relationship with their mother had an optimal–adequate relationship with either a teacher or best friend speaks to the power of the early relationship models that originate within the caregiving system. The presence of concordance rates of 36% and 22% for children with nonoptimal and optimal–adequate patterns, respectively, also suggests that concordance may be more likely in children who have nonoptimal relationships. This finding is consistent with research that has found that secure attachments are more likely to be unstable than are insecure attachments in maltreated children ( Cicchetti & Barnett, 1991 ). The high rate of concordance found in this investigation regardless of maltreatment status may be a result of the overall high-risk status of this sample. Because of the close comparability between maltreated and nonmaltreated children on a number of risk variables, the nonmaltreated children in this investigation are more commensurate with high-risk groups than they are with predominantly nonrisk populations of children.

Although the present study was not designed to examine links among concordance and adaptation, this issue requires further study. Specifically, might those children who are able to form positive relationships despite negative caregiving histories function more adaptively than those children who exhibit concordance across relationships when a negative relationship with the primary caregiver is present? Certainly, findings such as these suggest a possible compensatory role of relatedness in children who are able to rise above negative caregiving and remain open to alternative and potentially more positive relationship experiences. The paucity of children who emerged in this category in the current study is cause for considerable concern, as our results indicate that the formation of a potentially compensatory relationship is unlikely, although certainly not impossible. A further challenge to be confronted pertains to the elucidation of these characteristics and situations that enabled some children to form positive relationships despite the presence of negative models of caregiving figures.

This investigation provides further support for the importance of attachment relationships and representational models of relationship figures in school-age children who have experienced maltreatment; however, a number of caveats are in order. The measure of relatedness used in this investigation cannot be equated with earlier attachment history or with attachment itself; rather, it is a concurrent measure of the child’s report of perceptions of significant relationships. The fact that maltreated children who reported optimal–adequate relationships with their mothers did not evidence the same degree of depressive symptomatology or impaired perceived competence as did maltreated children reporting nonoptimal relationship patterns suggests that the relatedness construct acts as a buffer against adverse experiences. This finding is consistent with research that has found that resilient individuals often report a positive relationship history with a significant adult during childhood (Masten, Best, & Garnezy, 1990).

The self-report nature of all measures used in this study also must be considered, especially as this relates to the possibility of symptom denial based on type of attachment organization. Because previous research (Dozier & Kobak, 1992; Dozier & Lec, 1995) suggests that individuals who possess dismissing attachment organizations may deny symptomatology, it is possible that children who reported disengaged–deprived relatedness were underreporting symptomatology. To explore this possibility, we examined responses on the CDI for the 17 children who reported disengaged–deprived relatedness to their mothers. This hypothesis seems infelible because of the CDI scores in this group as a whole (M = 9, SD = 6.62, range = 4–28). Moreover, the likelihood of underreporting among those having disengaged–deprived relatedness becomes even less likely when considered in conjunction with resilience.

Of the children who reported disengaged–deprived patterns of relatedness to mother, 6 reported optimal–adequate relatedness to their best friend. Because these children were able to form what they consider to be a satisfying relationship despite the absence of this with their primary caregiver, some evidence for resilient functioning is provided. This possibility is strengthened when viewed in conjunction with the finding that those 6 children also had the lowest CDI scores of any of those reporting disengaged–deprived relatedness, with all scores being less than 6. Although the small numbers warrant caution in interpretation, this difference is statistically significant at p < .01. Additionally, if these 6 “resilient” children are eliminated from the disengaged–deprived CDI analyses, the CDI group mean increases to 10.73, again suggesting that these children are not denying symptomatology.

The results of this study are a step toward elucidating the possible mechanisms that may account for the heterogeneity in functioning among samples of maltreated children. It will be important to replicate these findings with a larger sample so as to be better able to examine subtype differences in conjunction with patterns of relatedness and symptomatology. For further
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exploration of the relationships among maltreatment, attachment, and self-system processes, it also will be important to conduct longitudinal research examining the pathways from attachment relationships in infancy and toddlerhood to adaptation in later childhood. Moreover, conducting longitudinal assessments that trace early attachment patterns as measured during the Strange Situation with patterns of relatedness in the school-age years would contribute to the validation of relatedness as an assessment of attachment in later childhood. Such investigations are presently being conducted in our laboratory.

References

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