Attachment Behaviors, Depression, and Anxiety in Nonoffending Mothers of Child Sexual Abuse Victims

Linda Lewin
Neumann College
Christi Bergin
University of Toledo

The purpose of this study was to examine the psychological well-being and attachment behavior of nonoffending mothers of child sexual abuse victims (CSAVs). This topic is significant because it is the mothers who most often provide support for young child victims. Two sets of data on maternal depression, state and trait anxiety, and Ainsworth's maternal attachment behaviors were analyzed. First, 38 mothers of CSAVs were compared based on the presence or absence of maternal history of abuse. Second, from the original 38 mothers of CSAVs, 27 mothers were compared to a matched group of mothers of nonabused children. Children in both data sets were 6 to 48 months. In the first data set, there were no significant differences in depression, anxiety, and attachment behaviors based on mothers' personal history of abuse. However, in the second data set, mothers of CSAVs had heightened levels of depression and anxiety and diminished maternal attachment behaviors.

The safety plan developed by protective services for a very young child typically depends on the nonoffending mother as the major source of emotional nurturance and assumes the mother's ability to respond to child sexual abuse. However, nonoffending mothers may suffer significant levels of distress themselves following disclosure of their children's abuse (Deblinger, Hathaway, Lippman, & Steer, 1993; Kelley, 1990). Safety plans may not routinely address the needs of the mother or her psychological ability to follow through with the specified plan. The mother's psychological well-being presumably affects her ability to be sensitive and responsive to her child, which would affect her child's recovery from abuse. Many studies have identified children's attachment behaviors following substantiated abuse (Carlson, Barnett, Cicchetti, & Braunwald, 1989; Crittenden & Ainsworth, 1989; DeLozier, 1982; George & Main, 1979; Main & Solomon, 1986); these include disorganized proximity seeking, overt resistance, and compulsive compliance as adaptation to the conflict between the need for closeness and the expected rejection/punishment in interpersonal experiences. However, little is known about maternal attachment behaviors and psychological well-being following abuse. Both the safety plan and the child's recovery could be jeopardized if the mother experiences depression and anxiety, which could potentially impair her enacting of the best possible attachment behaviors.

Attachment serves as a protective mechanism at a time when the human infant lacks the cognitive and rational ability to judge the safety of the environment. Bowlby (1958, 1982, 1988) described attachment behavior as seeking proximity to an attachment figure. He suggested that attachment has evolutionary origins for protection from danger and is an instinctual behavior that "serve[s] the function of binding the child to the mother and contribute[s] to the reciprocal dynamic of binding mother to child" (Bowlby, 1958, p. 351). Bowlby proposed that infant behaviors that bind the mother to the child include clinging and following, as well as smiling and crying. The caregiver is responsive to the infant's behavior

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and engages the infant in social interaction. Whereas the function of the attachment system is protection and survival, the function of the exploration system is learning. Attachment behaviors ideally keep these systems in balance by allowing the child to learn and explore without straying too far from the caregiver's protection (Ainsworth, Blehar, Waters, & Wall, 1978). If a child has an attentive mother to go to for security and reassurance, then exploration can take place within safe boundaries. Thus, the mother's attachment behavior provides a secure base for the child's exploration.

Mothers vary in how effective they are in promoting secure attachment in their children. Infants who are securely attached are more likely to have a caregiver who is sensitive, responsive, and available (Bowlby, 1973). Ainsworth (1978) argued that the child makes a contribution to the relationship, but the mother has disproportionate influence. Most of the available empirical evidence confirms the relationship between maternal attachment behaviors and security of infant attachment, even across cultures and socioeconomic status groups within the United States. However, the literature is sparse, and there are some conflicting studies. In a meta-analysis, deWolff and van Ijzendoorn (1997) concluded that the effect size of the 16 studies using Ainsworth's original sensitivity ratings scales was .24.

Quality of attachment is related to many developmental outcomes for the child, such as social and academic competence, psychopathology, and later parenting behaviors (Thompson, 1998). Secure attachment may also buffer the effects of sexual abuse on a child. Beitchman et al. (1992) conducted an extensive literature review of 32 studies of abuse in both clinical and nonclinical populations. They concluded that supportive relationships and maternal warmth, which are components of secure attachment, were strong predictors of psychological adjustment of children.

Maternal Attachment Behaviors

Ainsworth and her colleagues (Ainsworth et al., 1978) identified four maternal behaviors that influenced the quality of attachment. A summary of each dimension, emphasizing Ainsworth's terminology, follows.

Sensitivity versus insensitivity. Sensitivity refers to the mother's ability to accurately understand and respond to her child's communication (Ainsworth, 1973). A sensitive mother is responsive to the subtlest cues by her child and interprets these cues accurately. She is careful to offer her child the degree of soothing required without interfering with the child's desire to return to play. The sensitive mother finds

> a fine point of balance at which [she] can begin to show the baby that she is not an instrument of his will, but a co-operative partner whose participation must be elicited appropriately. . . . [She] will frustrate the baby's demands but warmly encourage and reward behaviours which are inviting or requesting rather than demanding. (Ainsworth, 1973, p. 130)

In other words, the sensitive mother may permit some frustration by the toddler as a means of encouraging competency and socially appropriate behavior. The promptness of the mother's response is appropriate so the child can link communication bids with responses of the mother.

The insensitive mother may attempt to tease her child back into good humor rather than demonstrate warmth when he or she is fussy. She seems unable to understand the child's point of view. She may interpret the child's needs through her own filter of defenses. She may be aware of the child's signals but does not want to respond because it might "spoil" the child. Maternal response delay results in the child's inability to temporally connect the maternal response to the child's activating signal. A mother may not be consistently insensitive, especially if the requests do not depart substantially from her own wishes. However, the highly insensitive mother seems pervasively egocentric. If she responds to her child's signals at all, it is coincidental. Ainsworth (1973) described this highly insensitive mother's response as "characteristically inappropriate in kind, or fragmented and incomplete" (p. 133).

Acceptance versus rejection. Acceptance refers to "the balance between the mother's positive and negative feelings" toward the child (Ainsworth, n.d.-a). At one end of the continuum, there is love and acceptance, and at the other there is anger, resentment, hurt, or irritation. Ainsworth assumed that negative feelings provoked by the limitations that child rearing places on mother's autonomy are present in some degree in all mother-child relationships. The accepting mother integrates the love-resentment impulses well enough to feel primarily positive and empathetic. Ainsworth explained that some mothers who are more rejecting may demonstrate "pseudo-acceptance" such as complying with the baby's demands but underneath are experiencing aggression that is deep-seated and persistent. This guardedness prevents them from being truly responsive to the infant, who, in turn, finds the interaction unsatisfying. At the lowest end of the continuum, the overtly and openly rejecting mother may make it known that she wished the child had never

been born. She may dwell on the child's shortcomings and emphasize problems in the child's behavior. She demonstrates rejection by scolding, jerking the child about, ignoring the child's communications, teasing, and persistent impatience. She may view any challenge by the child as a power struggle that she must win.

Cooperation versus interference. Cooperation refers to the timing and quality of mothers' interventions and initiation of activities (Ainsworth, n.d.-c). Cooperative mothers use subtle diversion to direct the child when needed, usually in a playful manner. Ainsworth described the cooperative mother as one who "invites [the child] to come and cooperate with what she has in mind rather than imposing it on him" (Ainsworth, n.d.-c, p. 2). Such mothers "codetermine" when they integrate maternal activities and wishes with those of their children. The degree of interference is based on the frequency and extent of the interruptions of the child's activity. A moderately interfering mother "tends to play entirely or almost entirely by doing something to the baby, or by getting him to do something she wishes" (Ainsworth, n.d.-c, p. 2). This mother may rely on verbal commands and scolding as a means of changing the child's activity. Instead of delaying her intervention, the moderately interfering mother imposes and manipulates. The highly interfering mother uses physical interventions such as slapping and imposing restraint in a power struggle. As a consequence of persistent interference, the child may no longer try to reach or explore.

Accessible versus ignoring-neglecting. Accessibility refers to a mother's awareness of her child and willingness to shift her attention from her own activities. Ainsworth (n.d.-b) described the accessible mother as "never too preoccupied with her own thoughts and feelings or with her other activities and interactions to have him [the child] in the background of her awareness and to sense where he is and what he is doing" (p. 1). The moderately inaccessible mother may occasionally be responsive but is more frequently too preoccupied with her own activities to tend to her child's signals. This mother may respond if her child's signals are persistent and obvious; however, her attention is through her "own program rather than in accordance with [the child's]" (Ainsworth, n.d.-b., p. 2). The highly inaccessible mother is psychologically neglecting. The mother resists her child's demands while she completes her own activities. She is ultimately unable to see things from the child's point of view and is, therefore, unable to respond.

Each of these four dimensions of attachment behavior is influenced by factors that affect the mother's well-being. For example, the mother's psychological attributes and degree of social-emotional support affect the quality of care the mother is able to provide the child. Belsky (1999) summarized evidence that "psychologically healthier parents are more likely than less psychologically healthy parents to have infants who are securely attached" (p. 255). Belsky argued that life stress and psychological problems make their contribution by diminishing the mother's capacity to provide sensitive, responsive care. George and Solomon (1999) discussed "disabled" caregiving systems where mothers feel inadequate, helpless, or unable to control their children or the situation. Such mothers fear for themselves and their children. This state renders the mothers closed to the children's attachment behaviors and may even lead the mothers to display frightening behaviors to the children. Their children are more likely to have insecure, particularly disorganized, attachment. In this study, we investigate three dimensions of maternal well-being—depression, anxiety, and history of abuse—that could interfere with the mother's availability to the child, making her emotionally absent, even if physically present (Bowlby, 1973).

Maternal Depression

Depression may diminish physical energy that is needed to supervise and interact with a child. The depressed mother's blunted affect interferes with her ability to be emotionally responsive to her child, jeopardizing attachment (Gelfand & Teti, 1995; Hay & Kumar, 1995; Livingood, Daen, & Smith, 1983). Indeed, Murray (1992) found that toddlers of postnatally depressed mothers were significantly more likely to be insecurely attached at 18 months. Similarly, Field et al. (1988) found that depressed mothers and their infants showed less positive interaction behavior (i.e., diminished physical activity, gaze behavior, vocalizations, facial expression, and imitation). More dramatic, however, was Field et al.'s finding that these infants performed poorly even when interacting with nondepressed adults, suggesting an interactional generalization by the infant. Thus, early maternal depression may have a persistent effect on the child's social development. When the attachment figure is emotionally unavailable, there may be adverse effects on the development of other domains as well because the child cannot use the mother as a secure base for exploration (Bretherton & Waters, 1985). For example, in a study involving more than a thousand preschoolers, children of mothers who were depressed differed from children of nondepressed mothers on school readiness, expressive language, verbal comprehension, problem behaviors,

and cooperative behaviors (National Institute of Child Health and Human Development, 1999). Thus, maternal depression can have pervasive effects on child development; one mechanism through which this happens is diminished attachment security.

Maternal Anxiety

According to attachment theory, anxiety is a primary drive that motivates mothers to draw the young child into protection from a threatening environment (Bowlby, 1960). Thus, the same events that activate anxiety may also activate and enhance maternal attachment behaviors. On the other hand, high anxiety may interfere with maternal attachment behaviors. Maternal sensitivity involves accurate interpretation of a child's communication based on awareness and empathy that is free from distortion (Ainsworth, 1973). Mothers with high levels of anxiety may have impaired awareness of communication cues because their own emotions are overwhelming. Anxiety may affect a mother's vigilance of her young child, with errors that could either inhibit protection or severely restrict exploration, causing imbalance in her child's needs for both exploration and protection. There is a dearth of empirical evidence suggesting how anxiety may affect maternal attachment behavior. The present study will contribute to understanding this association.

We have discussed two dimensions of maternal well-being that may affect maternal attachment behavior: depression and anxiety in the mother. The disclosure of her child's abuse is a psychological stressor that may cause depression and/or anxiety. Mothers express pleasure and satisfaction when they are able to provide protection for their children but anger, anxiety, and despair when they are not able to protect their children (George & Solomon, 1999). However, some early clinical lore may suggest that the occurrence of abuse implies a failure of the mother to be vigilant or to fulfill her responsibility for the child's safety. Historically, the literature has included clinical examples of the nonoffending mother as an "accomplice" in the occurrence of abuse or neglect of her child (Gomez-Schwartz et al., 1990). These early writings suffer from lack of empirical rigor, relying on clinical impressions of a small number of cases (Cammaert, 1988; Gomez-Schwartz et al., 1990; Sawchyn, 1992). Other studies have found that nonoffending mothers may positively influence their children's adjustment following abuse (Deblinger et al., 1993; Everson, Hunter, Runyon, Edelson, & Coulter, 1989). However, a mother's capacity to respond to her child in supportive ways may be dependent on her level of depression and anxiety following disclosure of her child's abuse.

Maternal History of Abuse

A nonoffending mother's personal history of abuse may also affect her response to her child's abuse. Deblinger, Stauffer, and Landsberg (1994) compared nonoffending mothers with and without a personal history of child sexual abuse who had accompanied their children for a forensic medical examination. The two groups of mothers did not differ significantly on the variable of acting as an advocate for their children or being the person who initially reported that his or her child might have been abused. However, nonoffending mothers who had a personal history of abuse exhibited greater perceptions of aloneness and higher levels of general symptom distress following the allegations of their children's sexual abuse. Thus, we might expect higher levels of anxiety and depression, and lower levels of attachment behaviors, in mothers of child sexual abuse victims (CSAVs) who have a personal history of abuse.

This study addresses depression, anxiety, and attachment behaviors in nonoffending mothers of CSAVs. The research questions addressed were, Do nonoffending mothers of CSAVs experience greater psychological distress and engage in poorer quality attachment behaviors than comparison mothers who do not have a child who was sexually victimized? and Are these maternal attributes related to her own history of abuse?

METHOD

This study employed an ex post facto research design with nonprobability, purposive samples. Two sets of data on maternal depression, state and trait anxiety, and Ainsworth's maternal attachment behaviors were analyzed. First, 38 mothers of CSAVs were compared based on presence or absence of maternal history of abuse (Data Set 1). Second, 27 of those 38 mothers of CSAVs were compared to a matched group of 27 mothers of nonabused children (Data Set 2).

Participants

Participants were mothers who were 18 years or older with children who were 6 to 48 months. Participants were recruited at ambulatory clinics of a medical college located in a Midwestern city that had a diverse patient pool. Potential volunteers were invited to participate by a personal phone call from the primary investigator followed by a letter detailing the purpose of the study. All participants were given a $10

grocery or discount store gift certificate. Potential participants for the abuse group were identified by the social worker from the child abuse and neglect team when protective services or police made referrals for medical evaluations. Out of 39 referrals, 38 mothers of CSAVs agreed to participate.

Potential participants for the comparison group were identified from primary pediatrics and family practice clinics' database by birth dates. Comparison children did not have a known history of abuse. Comparison participants also received a recruitment phone call followed by a letter confirming their appointment. They were informed that the objective of the study was to identify maternal effects of child sexual abuse and of the need for a comparison group of "typical" mothers and children. One hundred ten possible volunteers were contacted, 46 agreed to participate, and 27 actually kept their appointment. Time constraints for the study prevented recruitment of additional comparison group participants.

Comparison mothers were matched to nonoffending mothers of CSAVs on a case-by-case basis. All pairs were matched on five variables: (a) maternal age at the time of the birth or adoption of the index child, plus or minus 5 years; (b) number of children, classified as low (1-2 children), medium (3-5 children), or high (6 or more children); (c) maternal education, classified as high school diploma or less and some college or college graduate; (d) walking status of child; and (e) race. There were two nonwalking children matched to each other, and all others were walking. An attempt was also made to match on child age within 3 months. However, 13 pairs (or 48%) were more than 3 months different in age. Three of the pairs were 6 months different in age, 6 pairs were 7 to 11 months different in age, and 4 pairs were 17 to 28 months different in age. The other five variables were matched for all pairs.

Procedure

Mother and child were invited to a pediatric exam room equipped with a video camera mounted in an unobtrusive manner. Developmentally appropriate toys were provided. The mother was generally within an arm's length of the child and could maintain continuous visual contact. A 25-minute play session with mother and the index child was videotaped. A divided-attention paradigm was used, such that mothers were asked to complete three questionnaires during the play session. This divided-attention paradigm is similar to the demands of a household and is more ecologically valid than a child-as-the-only focus situation.

Measures

The three questionnaires completed by mothers during the play session included a demographics questionnaire, the Beck Depression Inventory–II (BDI-II), and the State-Trait Anxiety Inventory (STAI). The demographic questionnaire was designed for the study to obtain data for matching pairs, history of abuse of the mother and the child, and the relationship of the perpetrator. In addition, observers rated the mothers' attachment behaviors from videotapes of the play session.

The BD-II is a self-report measure of depression designed for use with both clinical and nonclinical clients (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). Participants were asked to select one of the four response options that most closely described the way they have felt over the past 2 weeks. The possible range of scores is 0 to 63. Reliability is reported as coefficient alpha = .92 (Beck et al., 1961).

The STAI is a widely used anxiety questionnaire developed to assist in the distinction between trait anxiety, a stable individual proneness to anxiety, and state anxiety, a changeable response to a threatening situation (Spielberger, 1983; Spielberger, Gorsuch, & Lushene, 1970). Participants were asked to complete the State Anxiety Scale first, followed by the Trait Anxiety Scale, to comply with administration standards of the measures. The median reliability for samples of working adults is reported as coefficient alpha = .93 for State Anxiety and .90 for Trait Anxiety (Spielberger, 1983).

Ainsworth's Maternal Behaviors Scales (Ainsworth, n.d.-a, n.d.-b, n.d.-c, 1973), derived from the work of Ainsworth and Bell (1969), were used to assess maternal attachment behavior. Four dimensions of behavior were rated: sensitivity-insensitivity, acceptance-rejection, cooperation-interference, and accessibility-ignoring. Mary Ainsworth was personally contacted for reference to an objective instrument to measure maternal attachment behaviors. Her reply included one publication (1973) and three unpublished manuscripts that described the four maternal attachment dimensions. Although Ainsworth's research is among the most widely cited in the attachment literature, psychometric properties of the scales were not developed. Each of the four attachment dimensions was rated on a 9-point scale with 5 anchor points (1,3,5,7, and 9) that have specific behavioral descriptors (Ainsworth, Bell, & Stayton, 1971). Higher scores represent higher attachment quality.

Two counseling psychology doctoral students coded the videotapes for attachment behavior. The coders were blind to the group membership of the

participants. Training sessions were conducted using both simultaneous and independent viewing of 28 randomly selected videotapes. Discrepancy was resolved through discussion. Training was concluded when 81% interrater agreement of plus or minus 1 point on the 9-point continuum was achieved. The two coders coded the remaining 37 tapes independently.

RESULTS

Sociodemographic Characteristics

In the first data set, involving only the 38 mothers of CSAVs, 23 (60.5%) had a personal history of abuse, whereas 15 (39.5%) did not have a personal history of abuse. One mother was adoptive, and the remaining 37 mothers were biological. Children were primarily the victims of incest with alleged perpetrators reported as 44.7% father/stepfather/paramour, 21% other family member, 21% unknown/unsure, and 13.1% friend of mother. Mothers' ages at the time of the birth of the index children were 16 to 39 years. An independent *t* test indicated no significant difference in maternal age ($t(35) = -.85$, $p > .05$) or child age ($t(36) = -.35$, $p \geq .05$) between the mothers with and without a personal history of abuse. Mean age of mothers of CSAVs with a personal history of abuse was 21.7 years ($SD = 3.6$) and without a personal history of abuse was 23.1 ($SD = 6.1$). Average age of the children of mothers with a personal history of abuse was 34.8 months ($SD = 9.1$) and 35.8 months ($SD = 6.8$) for children of mothers without a history of abuse. Sixty-five percent of the mothers with a history of abuse had one or two children, and 80% of the mothers without abuse had one or two children. Most of the mothers had a high school education or less (62.5%). A chi-square analysis indicated there was not a significant difference in number of children, $\chi^2(2, N = 38) = 1.30$, $p > .05$, or level of education, $\chi^2 = (1) = 1.28$, $p > .05$, between the mothers with and without a history of abuse. Race was determined by self-identification. The majority (86.7%) of mothers without a history of personal abuse were Caucasian, and all the mothers with a history of abuse were Caucasian.

In Data Set 2, involving 27 matched pairs of CSAVs' and comparison mothers, all mothers were biologic. Mothers' ages ranged from 15 to 40. An independent sample *t* test indicated no difference in maternal age, $t(51) = 1.94$, $p > .05$. Mean ages of mothers were 23.9 ($SD = 4.8$) and 26.6 ($SD = 5.4$) years for CSAVs' and comparison mothers, respectively. Average ages of children were 35.8 ($SD = 8.8$) and 25.6 ($SD = 10.5$) months for CSAVs and comparison children, respectively. The CSAVs were significantly older, $t(52) = 3.86$, $p = .000$. Also, child age was significantly correlated with maternal depression ($r = .31$, $p = .02$), state anxiety ($r = .41$, $p = .002$), and trait anxiety ($r = .35$, $p = .010$). Because significant difference between the groups was found and this variable was associated with outcome variables, child age was entered as a covariate in subsequent analyses. Most of the mothers had only one or two children, 66.7% for both groups. Most of the mothers had some college or were college graduates, 59.2% and 81.5% for CSAVs' and comparison mothers, respectively. Mothers in the comparison group (80% some college/college graduate) were better educated than mothers from the CSAVs group (59% some college/college graduate). Chi-square analysis indicated this difference was significant, $\chi^2(1) = 5.30$, $p = .021$. In addition, maternal education was correlated with trait anxiety ($r = .29$, $p = .03$), sensitivity ($r = .35$, $p = .01$), and acceptance ($r = .40$, $p = .003$). Because significant differences between the two groups were found and because maternal education was related to outcome variables, maternal education was also entered as a covariate in subsequent analyses.

Only 7.4% of the comparison mothers reported a personal history of abuse, precluding further analysis of this variable in this data set. Participants in the comparison group were more racially diverse (66.7% Caucasian and 22.2% African American) than mothers of CSAVs (96.3% Caucasian). The diversity of the comparison mothers reflects the racial distribution of the patient pool from which they were recruited, whereas mothers of CSAVs reflect the racial distribution of the patients who typically were seen at the clinic for child abuse assessment. Chi-square analysis using two categories—Caucasian and non-Caucasian—indicated a significant difference between the two groups, $\chi^2(1) = 6.53$, $p = .011$. Racial identity was correlated with maternal depression ($r = .28$, $p < .05$); specifically, mothers with higher depression scores were more likely to be Caucasian. No other outcome variables were correlated with race. Race was not included in further analyses due to lack of variation of race in this sample and its lack of association with all outcome variables except depression.

Outcomes for Mothers of CSAVs With and Without a History of Abuse

A MANCOVA was conducted using child age and maternal education as covariates, with abuse history as the independent variable and depression, anxiety, and the four attachment behaviors as dependent variables. Results ($T^2(7) = 0.43$, $p > .05$) indicated no significant differences on the covariates or grouping variable of presence or absence of maternal history of

abuse for any of the outcome variables. The mean depression scores of mothers of CSAVs both with and without a personal history of abuse were in the moderate to severe range (see Table 1). Also, state and trait anxiety were high in both groups relative to a norming sample of working adult women (ages 19-39).

Outcomes for Mothers of CSAVs and Comparison Mothers

A MANCOVA was conducted using child age and maternal education as covariates, with group (comparison vs. CSAV) as the independent variable and depression, anxiety, and the four attachment behaviors as dependent variables. The multivariate test of the grouping variable was significant (T^2 = (7) = 14.7, $p < .001$). Univariate tests indicated that comparison mothers and mothers of CSAVs differed significantly ($p < .01$) on all seven dependent variables: depression, $F(1, 49) = 29.05$; state anxiety, $F(1, 49) = 51.45$; trait anxiety, $F(1, 49) = 21.04$; sensitivity $F(1, 49) = 12.03$; acceptance, $F(1, 49) = 11.08$; accessibility, $F(1, 49) = 10.81$; and cooperation, $F(1, 49) = 9.71$.

Table 2 indicates that the BDI-II mean score of the comparison group mothers was in the range of normal mood. In fact, the majority (81.5%) of comparison mothers scored in the range of normal mood, and the remainder (18.5%) were in the mild to moderate depression range. In contrast, the mean score of the mothers of CSAVs was in the range of moderate to severe depression. Mothers of CSAVs also exhibited greater variance in scores. More than half of the mothers of CSAVs scored in the severe (26%) or extremely severe (33%) range of depression, whereas none of the comparison mothers scored in these higher levels. Table 2 also indicates that mothers of CSAVs reported almost twice as high state anxiety scores as did comparison mothers. The mean of the comparison mothers was 28.03 ($SD = 9.07$), which is similar to norming samples for the STAI (Spielberger, 1983) in working females ($M = 36.17$, $SD = 10.96$). In contrast, the mean for mothers of CSAVs in this study was 55.85 ($SD = 13.41$). Mothers of CSAVs also reported substantially higher trait anxiety ($M = 48.03$, $SD = 9.96$) than the comparison mothers. The means for all four maternal attachment dimensions were significantly lower for mothers of abuse victims than for the comparison mothers.

The BDI-II was significantly correlated with state ($r = .82$, $p < .01$) and trait anxiety ($r = .79$, $p < .01$) when CSAVs' and comparison mothers were pooled. There was also a strong relationship between state and trait anxiety ($r = .85$, $p < .01$). Although there was a trend for higher levels of depression and anxiety to be associated with lower levels of attachment behavior, as attachment theory would predict, the correlations were not significant. The only exception was that trait anxiety was negatively correlated with accessibility ($r = -.30$, $p < .05$), suggesting that the more anxious the mother the less accessible she was to her child.

TABLE 1: Depression, Anxiety, and Attachment Behaviors by Maternal History of Abuse

	Denies History of Abuse (n = 15)		*History of Abuse* (n = 23)	
Variable	M	SD	M	SD
Beck Depression	21.60	10.57	24.91	14.93
State anxiety	57.50	9.04	54.78	15.37
Trait anxiety	44.80	7.26	48.43	11.91
Acceptance	6.17	1.92	5.39	1.64
Sensitivity	5.75	1.66	5.18	1.76
Cooperation	5.48	1.40	5.11	1.68
Accessibility	5.70	1.38	5.60	1.79

NOTE: The higher the score, the less optimal functioning for depression and anxiety measures. The higher the score, the more optimal functioning for maternal attachment measures.

TABLE 2: Depression, Anxiety, and Attachment Behaviors of Comparison Mothers and Mothers of Child Sexual Assault Victims (CSAVs)

	Comparison Mothers (n = 27)		*Mothers of CSAVs* (n = 27)	
Variable	M	SD	M	SD
Beck Depression	5.51	4.75	24.33	13.34**
State anxiety	28.03	9.07	55.85	13.41**
Trait anxiety	32.40	10.73	48.03	9.96**
Acceptance	7.42	0.80	6.20	1.47**
Sensitivity	6.87	1.40	5.85	1.38**
Cooperation	6.33	1.55	5.38	1.50**
Accessibility	7.06	1.37	6.02	1.36**

NOTE: The higher the score, the less optimal functioning for depression and anxiety measures. The higher the score, the more optimal functioning for maternal attachment measures.
**$p \leq .001$.

DISCUSSION

A key finding is that mothers of CSAVs who have their own history of abuse are not distinguished from mothers without a history of abuse in self-report of depression, state and trait anxiety, or observers' assessments of attachment behaviors following the onset of investigation of their children's sexual abuse. This might be surprising given that the current literature suggests that childhood abuse is a risk factor for adult clinical levels of depression and anxiety, along

with impaired interpersonal relations. However, in the present study, both mothers with and without a history of abuse reported elevated levels of both depression and anxiety. Thus, the demands of child sexual abuse investigation for their children may override any effect of the mothers' own past history, at least temporarily while the child's investigation is ongoing. The emotional intensity of the immediate threat to their children may have been strong enough to push even the mothers without a history of abuse into the same range of depression and anxiety as mothers with a history of abuse, although the latter mothers may have had higher levels of depression and anxiety before the abuse became known.

A second key finding is that mothers of CSAVs are significantly different from matched comparison mothers in each of the outcome variables. That is, mothers of CSAVs had (a) heightened levels of depression; (b) heightened levels of both state and trait anxiety; and (c) diminished sensitivity, cooperation, acceptance, and accessibility during interaction with their children. Fifty-nine percent of mothers of CSAVs experienced depression. This is consistent with Wagner's (1991) finding that 50% to 69% of mothers of CSAVs experienced depression.

The state anxiety mean for mothers of CSAVs was significantly higher than that of the comparison mothers and higher than the norming sample reported by Spielberger (1983). Higher rates of state anxiety are a logical outcome for mothers of CSAVs because the mother's perception of safety has been challenged and her sense of vulnerability and lack of control may be heightened. However, it is perplexing that trait anxiety was also significantly higher for mothers of CSAVs. The trait anxiety measure is supposed to reflect stable, long-term levels of anxiety, not the immediate response to crises. Why then is trait anxiety so elevated among the mothers of CSAVs? Although one possible explanation is that the mothers of CSAVs have preexisting, high trait anxiety that diminishes their ability to keep their children safe, mother blaming has not been supported in well-developed clinical research in this decade (Deblinger et al., 1993; Gomez-Schwartz et al., 1990). Another plausible explanation for the higher level of trait anxiety in mothers of CSAVs is that long-term anxiety may have developed in response to the life circumstances under which the mother resided and the abuse occurred. Trait anxiety is the frequency of state anxiety over time. Even in a norming sample of adult working women, the correlation between State and Trait Anxiety Scales was high ($r = .70$). Spielberger stated that correlations between the two scales are higher "under conditions that pose some threat to self-esteem, or under circumstances in which personal adequacy is evaluated" (p. 34). In this study, all the known alleged offenders were family members or friends of the nonoffending mothers whose relationship history may have triggered anxiety in the mother. Also, a mother of a CSAV may have internally processed alarming events over time, for example, sexualized behaviors by the child, direct statements by the child, investigation by protective services, and medical evaluation. With this extended process, the mother may not remember a period of time during which she felt low anxiety, thus generalizing feelings about the abuse that manifest as trait anxiety.

Mothers of CSAVs engaged in less optimal attachment behaviors than comparison mothers. Mothers of CSAVs' average scores on the four attachment dimensions ranged from 5.4 to 6.2, whereas comparison mothers' average scores ranged from 6.3 to 7.4 on a 9-point continuum. Unfortunately, there is not a research base for determining the clinical significance of these differences. Thompson (1998) presented maternal sensitivity scores for secure and insecure children in several different studies. Across studies, there is great variation in scores such that in one study sensitivity scores of 5.85 would be characteristic of the securely attached children, whereas in another study they would be characteristic of the insecurely attached children. However, within each study mothers of insecurely attached children scored lower than mothers of securely attached children. In addition, Thompson pointed out that although mothers of insecurely attached children are relatively lower in attachment behaviors, they do not appear to be grossly insensitive.

Similarly, mothers of CSAVs' average scores on accessibility were between *usually accessible* (a score of 7) and *inconsistently accessible* (a score of 5). This score is given when the mother has periods of close attention and accessibility with occasional preoccupation with other things despite her child's attempts to gain attention. During the periods of inaccessibility, the mother seems to forget about or ignore what her child is doing, leading to potential hazards. However, the mother is more often accessible than inaccessible and generally responsive to her child's needs. Ainsworth's description (n.d.-c) of a mother with a score of 5 on the cooperation/interference dimension is that she is not necessarily interfering but rather is inconsiderate. The mother may interrupt her child's exploration or attempts to master a task. In summary, although the mothers of CSAVs' attachment behaviors, on average, do not indicate gross insensitivity, they were less sensitive than the matched comparison group. Their

diminished attachment behaviors may exacerbate issues raised by the abuse.

Limitations

Although this study attempted to address limitations found in other child abuse studies that lack comparison groups, it was not possible to match participants perfectly. MANCOVA was used to adjust for the difference in child age and maternal education between the groups. Also, sample size for the matched comparison group was limited due to time constraints of the study and a high percentage of potential volunteers who declined to participate. The resulting sample of comparison mothers may have been psychologically healthier and had more optimal attachment behaviors than the general population.

These data are correlational, which precludes establishing causality. One possible causal pathway is that the experience of having a child sexually abused causes depression and anxiety in the mother and interferes with maternal attachment behaviors. This could place the child at risk for insecure attachment even if the mother had been adequate prior to the maltreatment because attachment security is a function of the interplay between internal working models, based on past relational history, and the current quality of the mother's attachment behaviors. Conversely, another possible causal pathway is that mothers with preexisting diminished attachment behaviors have children who are at higher risk of maltreatment. Even if diminished maternal attachment behaviors precede the maltreatment, the current pressing issue of the discovered maltreatment is likely to further disrupt maternal behavior. Longitudinal, prospective data are needed to indicate whether the psychological distress and maternal attachment behaviors are stable and if they preceded child maltreatment.

Implications for Practice

Regardless of whether the depression, anxiety, and diminished attachment behaviors are preexisting maternal attributes or post–child sexual abuse effects, the need for intervention is significant. These are risk factors to the mother's well-being as well as to her capacity to help the child cope with abuse. The children of the mothers in this study were too young to benefit from most of the available forms of therapy, so mothers were responsible for the children's coping. The nonoffending mother of the victim is expected to comply with the plan, using the services indicated to facilitate her child's recovery and integration of the abuse. However, the mother's ability to comply with all the provisions of the plan and to enhance her young child's psychological well-being and safety can be impaired if she is experiencing depression, anxiety, and diminished maternal attachment behaviors. Initial inquiry about the well-being of the mother should be standard practice in CSAV cases. Referral for screening and formal evaluation of the mother's capacity to work through the trauma of the abuse may be necessary if she exhibits flattened affect, impaired decision making, mood fluctuations, impaired sleeping patterns, or other symptoms commonly associated with moderate to severe depression and anxiety.

Traditional therapeutic intervention may acknowledge maternal depression and anxiety, but it is less likely that maternal attachment behavior is routinely addressed, although interventions that diminish maternal depression and anxiety may indirectly improve maternal attachment behaviors. It is not evident what form direct intervention should take to enhance sensitivity, accessibility, cooperation, and acceptance among nonoffending mothers of CSAVs. Most interventions for diminished attachment in other populations focus on changing the mothers' inadequate parenting behavior or address mothers' mental representations of relationships (Lieberman & Zeanah, 1999). One approach is insight-oriented parent-child psychotherapy where the quality of the parent-therapist relationship is a key factor. Therapists use a warm, empathic listening style and are consistently supportive of the mother's modeling the very behaviors the mother needs to enact with her child. Therapists model a secure base to the mother through which she could explore attachment toward her own child.

Another approach to attachment intervention involves didactic parent education in which parents are taught specific skills and coached in reinterpreting the child's behavior. Emphasis is usually given to communication skills because clear communication is foundational to secure attachment. For example, in parent-child interaction therapy parents are taught specific communication skills and are offered prompts by a therapist through a bug-in-the-ear device during mother-child interactions (Urquiza & McNeil, 1996).

Unfortunately, many attachment interventions are not rigorously empirically evaluated (Lieberman & Zeanah, 1999). In addition, the existing evidence suggests that when parent sensitivity is enhanced, there is not always an enhancement of attachment (van Ijzendoorn, Juffer, & Duyvesteyn, 1995). George and Solomon (1999) argued, "One powerful influence that has been overlooked is intervention organized around the framework of the caregiving system—that is, a mother's evaluation of herself as effective in providing protection for her child" (p. 665). More research on the effectiveness of treatment for mater-

nal attachment behavior is needed. But, a first step is more research to understand processes underlying the psychological distress and caregiving disruption of nonoffending mothers of CSAVs. We hope this study may add to the way clinicians listen and respond to nonoffending mothers.

Summary

The key findings in this study were that mothers of CSAVs were significantly different from comparison mothers in depression, state and trait anxiety, and attachment behaviors. That is, mothers of CSAVs had (a) heightened levels of depression; (b) heightened levels of anxiety; and (c) diminished sensitivity, cooperation, acceptance, and accessibility toward their children. Mothers' own history of abuse was not associated with any of these outcomes, presumably because mothers without a history of abuse reported as elevated levels of psychological distress as those with a history of abuse. Causality could not be determined from the data. However, the findings clearly indicate the necessity for therapeutic interventions that focus on the reduction of depression and anxiety and the enhancement of maternal attachment behaviors in mothers of CSAVs. Improvement in maternal depression, anxiety, and attachment behaviors would facilitate the recovery of the young CSAV. Further research should address interventions aimed at improving mothers' psychological well-being and attachment behavior.

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Linda Lewin, Ph.D., R.N., C.S., is an assistant professor in the Division of Nursing and Health Science at Neumann College, Aston, Pennsylvania. She received a Ph.D. in educational psychology from the University of Toledo in 2000. She has been a clinical nurse specialist with a hospital-based child abuse assessment team.

Christi Bergin, Ph.D., is an assistant professor of educational psychology at the University of Toledo, Ohio. She received a Ph.D. in child development and an Ed.S. in program evaluation in 1987 from Stanford University. She conducts research in children's social development and parent-child interaction in high-risk families.