

CHILD MALTREATMENT

Journal of the American Professional Society on the Abuse of Children

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Journal of the American Professional Society on the Abuse of Children

Volume 6 Number 4
November 2001

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Focus Section I: Fathers and Child Maltreatment: Findings From the Longitudinal Studies of Child Abuse and Neglect (LONGSCAN)

Are Father Surrogates a Risk Factor for Child Maltreatment?

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Most research on the effect of father figures in the home on the incidence of child maltreatment has been cross-sectional and has focused on sexual abuse. This prospective study's purpose is to determine if the presence of a father surrogate in the home affects the risk of a subsequent child maltreatment report. In a longitudinal sample of at-risk children, North Carolina's Central Registry for Child Abuse and Neglect was used to determine the maltreatment history of children from birth to age 8 years. Children who had a father surrogate living in the home were twice as likely to be reported for maltreatment after his entry into the home than those with either a biological father (odds ratio = 2.6, 95% confidence interval = 1.4-4.7) or no father figure in the home (odds ratio = 2.0, 95% confidence interval = 1.1-3.5).

It is estimated that at least one half of today's children in the United States will experience father absence at some time during their childhood or youth (Bumpass & Sweet, 1989; Castro & Bumpass, 1989). Marital dissolution rates have remained constant for a decade but are still high, involving more than 1 million children per year (Bumpass, Raley, & Sweet, 1995). Nonmarital childbearing rates have increased over the past two decades and continue to rise

(Ventura & Bachrach, 2000). These trends have prompted concern, especially as they relate to the economic deprivation (Duncan, Brooks-Gunn, & Klebanov, 1994; Garrett, Ng'andu, & Ferron, 1994) and the diminution of human capital (Garfinkel & McLanahan, 1986; Thompson, Entwisle, & Alexander, 1988) and social capital (Astone & McLanahan, 1991; Coleman, 1988; Dornbusch et al., 1985) associated with single-parent families. However, concomitant with these trends in marital dissolution and nonmarital childbearing has been an increase in rates of cohabitation. In the United States, the percentage of unmarried mothers cohabiting with men who are unrelated to their children has increased dramatically since 1976 (London, 1998). In 1990, it was estimated that nearly one in seven children living with a single mother coresided with her unmarried male partner (Graefe & Lichter, 1999). When cohabitation and

Authors' Note: This work was supported in part by Grant No. 90CA1467 from the Children's Bureau, Administration for Children and Families, USDHHS, to the University of North Carolina Injury Prevention Research Center; Grant No. MCJ-37051 from the Maternal and Child Health Research Program, Bureau of Maternal and Child Health, Health Resources and Services Administration, USDHHS, to the Department of Maternal and Child Health, the University of North Carolina at Chapel Hill; and Grant No. R49/CCR402444 from the National Center for Injury Prevention and Control to the University of North Carolina Injury Prevention Research Center.

marriage to a partner who is not biologically related to the mother's offspring are considered together, it is estimated that nearly 30% of all American children will live at some time with an unrelated father figure (Bumpass et al., 1995).

Furthermore, there is evidence that children of single mothers are exposed to more adult males than children of married mothers (Finkelhor & Baron, 1986; Tomison, 1996), which implies the frequent presence in the single-mother household of non-related men who may act as father surrogates. This is especially true of children born to teenage mothers, who are more likely than those born to older mothers to experience the entry and exit of adult males and less likely to continuously coreside with an adult male (Crockett, Eggebeen, & Hawkins, 1993).

Whereas some studies have demonstrated benefits associated with fathers or two-parent families (Astone & McLanahan, 1991; Coleman, 1988; Dornbusch et al., 1985; Duncan et al., 1994; Garfinkel & McLanahan, 1986; Garrett et al., 1994; Thompson et al., 1988), other findings related to the presence of fathers have suggested a minimal impact beyond economic contributions to the family (Crockett et al., 1993; Furstenberg & Harris, 1993). One difficulty in interpreting the results of these studies is varying definitions of father presence. Researchers and demographers have only recently begun to recognize the dynamic nature of household structure in many American families today and are suggesting that reliance on traditional classifications of marital status may say little about a child's exposure to father surrogates (Graefe & Lichter, 1999). The benefits associated with two parents, or with father figures in particular, need to be considered in light of potential risks that may be associated with unrelated men coresiding in the household.

This study considers one of the more serious risks: child maltreatment, defined as a report to child protective services (CPS) for physical abuse, sexual abuse, or physical neglect. We use longitudinal data to examine the risk for abuse and neglect of children who coresided with father surrogates (defined as coresiding husbands or boyfriends who were not biologically related to the child) compared to children who were living with both biological parents or with single mothers who did not live with unrelated partners. The sample was drawn from families participating in the Stress and Social Support project (Kotch et al., 1995) and its Longitudinal Study of Child Abuse and Neglect (LONGSCAN) follow-up (Runyan et al., 1998). The North Carolina Central Registry for Child Abuse and Neglect was used to determine the maltreatment experience of each child from birth to age 8 years (T8).

BACKGROUND

Sociobiologists, emphasizing the adaptive processes that increase an individual's success in passing on his or her genes, have theorized that more resources are invested in biological offspring than in stepchildren and, conversely, that parents are less inclined to injure their own offspring than an unrelated individual (Malkin & Lamb, 1994). In a series of studies stretching over the past two decades, Wilson and Daly used American, British, and Canadian data to examine the risk of physical abuse or nonaccidental death for children living with stepparents or other surrogate parents. They found that children living with one natural parent and one surrogate parent were much more likely to be physically abused or killed than children living with both natural parents (Daly & Wilson, 1985, 1994; Wilson & Daly, 1987; Wilson, Daly, & Weghorst, 1980). They also found that children living with single mothers had an elevated risk when compared to children living with both natural parents, although the risk was less than for those children living with stepparents (Daly & Wilson, 1985; Wilson et al., 1980). The interesting finding in one of these studies (Daly & Wilson, 1985) was that in the majority of the cases, the perpetrator of the abuse in the single-mother families was not the mother but a man other than the child's father. In all their studies, Wilson and Daly have examined potential biases (e.g., selection and reporting biases) and confounders and have found that neither can account for the stepparent-abuse association. Other researchers have similarly found stepchildren or children reared by one or more nongenetic parent to be at greater risk for abuse (Burgess & Garbarino, 1983; Giles-Sims, & Finkelhor, 1984; Kimball, Stewart, Conger, & Burgess, 1980; Lightcap, Kurland, & Burgess, 1982; Margolin, 1992; National Research Council, 1993) and for death than children reared by both genetic parents (Showers, Thomas, Beavers, & Apolo, 1985). Margolin (1992) focused specifically on mothers' boyfriends and found this group to be overrepresented as perpetrators of child abuse when compared to other nonparent caregivers. In this study, the variables most associated with a report of child abuse were male gender, no genetic relationship to the child, not seen as a "legitimate" authority figure, and perceived as being in competition with the mother-child tie.

These findings associating stepparents and other surrogate parents with an increased risk for child abuse were not supported by Gelles and Harrop's analyses of the data from the Second National Family Violence Survey (Gelles & Harrop, 1991). Using a different methodology (in this case, self-report tele-

phone survey on violent behaviors using a national probability sample), these researchers did not find an association between nongenetic parenthood and violent behaviors with children. In discussing the differences between these findings and those of Wilson and Daly, the authors speculated that bias might be a factor in either set of studies. In the case of Wilson and Daly's work, they questioned the conclusion that systematic bias against nongenetic caretakers could not be a factor in the detection and classification of abuse by authorities. In the case of their own study, Gelles and Harrop (1991) noted that their self-report data may not be valid, in that nongenetic caretakers may be less inclined to self-report severe violence.

Research on child sexual abuse has suggested that living without a biological father puts girls at increased risk for sexual abuse (Fergusson, Lynskey, & Horwood, 1996; Finkelhor, Hotaling, Lewis, & Smith, 1990). Furthermore, nonbiological father figures, especially stepfathers, have higher rates of perpetrating sexual abuse and of inflicting more serious abuse, defined as more use of force and a greater degree of sexual violation (Finkelhor et al., 1990; Margolin & Craft, 1989; Russell, 1984).

Studies examining the risk of maltreatment by father status have tended to focus more on physical and sexual abuse than on neglect, the most commonly reported form of child maltreatment (U.S. Department of Health and Human Services, 2000). Very little research has been conducted on fathers and neglect. Typically, child neglect has been associated with poverty and single-parent families (Gaudin, 1993), though one recent study reported no association between father absence and neglect (Dubowitz, Black, Kerr, Starr, & Harrington, 2000). In their work, Wilson and Daly (1987) found that poverty and single parenthood were more strongly predictive of neglect than abuse, whereas step-households were correlated more strongly with abuse. Yet, as noted earlier, children of single mothers are exposed to more adult, nonrelated males in the home throughout their childhood and adolescence than those with married mothers (Tomison, 1996). Indeed, a study comparing neglectful mothers to a control group noted that "contrary to popular belief," most of the neglectful mothers had partners, although they were less likely than the control group to be married to or living with their partners (Coohey, 1995). Moreover, Coohey (1995) found that the partners of neglectful mothers had known them for less time and were less likely to be biological fathers of the mothers' offspring. The National Research Council (1993, p. 127) has characterized single-parent families as a "shifting constellation of adult and child figures," representing at times

desperate efforts by the parent to keep the family together during economic or social crises.

Although some of the literature reviewed here does support an association between the presence of father surrogates and increased risk for physical or sexual abuse, the evidence related to child neglect is only suggestive. Despite evidence that the association between child neglect and single-parent families might be confounded by the unaccounted-for presence of father surrogates in single-mother homes, no study has addressed this issue directly. In addition, most of these studies have focused either on stepfathers or on mothers' boyfriends, but recent demographic studies have argued that these two types of household structure can be lumped together as "married or cohabiting stepfamilies" (defined simply as an arrangement where one parent figure is not biologically related to his or her partner's children) (Bumpass et al., 1995).

Our study focuses on young children (4 to 6 years old) and the maltreatment risk associated with living in a family situation that includes a father surrogate, whether he is married to the child's mother or not. Specifically, this research takes advantage of a longitudinal study of children at risk for maltreatment to examine the relative risk for abuse or neglect associated with the presence of nonbiological father figures compared with families that include both biological parents and families that include only the biological mother, while controlling for other risk and protective factors. Because at this age the great preponderance of maltreatment reports is for neglect (U.S. Department of Health and Human Services, 2000), our study should help clarify previous findings that have linked single-parent families to child neglect by showing that the entry of a surrogate father into the home, regardless of marital status, increases the risk of a subsequent child maltreatment report.

METHOD

Study Sample

The participants in this study are a subset of 788 mother-infant pairs that were recruited at birth in 1986 to 1987 from hospitals in 37 counties across the state of North Carolina (Kotch, Browne, Dufort, Winsor, & Catellier, 1999; Kotch et al., 1995, 1997). Eighty percent of the newborns were predicted to be at risk of child maltreatment according to maternal and infant characteristics assessed at birth. At age 4, 70 participants who had been reported to the North Carolina Central Registry of Child Abuse and Neglect were randomly selected for follow-up by LONGSCAN.

An additional 140 unreported participants were selected as controls after matching on age, race, sex, and income. For the purposes of this study, the sample was restricted to the subsample of children who were living with their biological mothers at the first interview and were known to have lived in the state up to age 4.

Data Collection

The baseline questionnaires (T1) were administered in the mothers' homes a few weeks after the infants' births by trained interviewers. Follow-up interviews and child assessments were conducted when the children were 5 years old (T4) and again a year later (T6). The questionnaires at all three points in time contained items pertaining to the mothers' sociodemographic characteristics, physical and mental health, marital status, household structure, receipt of public income supports, parenting attitudes and behavior, social support, and stressful life events. The study was approved by the Institutional Review Board for the Protection of Human Research Subjects at the School of Public Health, University of North Carolina at Chapel Hill.

Variables

Dependent variable. Our outcome of interest was the occurrence of a child abuse and/or neglect report (whether substantiated or not) during three intervals: birth to T4, T4 to T6, and T6 to T8). After permission was obtained from the director of social services of the State of North Carolina, the state's Central Registry of Child Abuse and Neglect was reviewed annually until 1992 and then semiannually until September 1998, to determine which study children had been reported to CPS as suspected of having been abused and/or neglected by the age of 8.

Independent variable. At every interview, the child's household structure was determined by maternal report. Household structure was defined as the presence of the child's father, or the presence of a nonbiological father figure in the home, or no male maternal partner in the home. Because of the small number of stepfathers (nonbiological marital partners) in the sample ($n = 0, 16,$ and 19 at T1, T4, and T6, respectively), they were grouped with other (unmarried) nonbiological partners.

Potential confounding factors or effect modifiers. Information on mother's age at the birth of the index child (16 or 16+), mother's education (high school or high school graduate), child's race (White or non-White), and child's sex were recorded for each child at T1. Other potential confounders or effect modifiers were

measured repeatedly over time (i.e., at T1, T4, and T6). They included participation in the Aid to Families With Dependent Children (AFDC) program, number of siblings in the home (0, 1, 2+), and mother's depression score. The Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977) was used to measure depressive symptoms experienced in the past week. Likert-type items on a 4-point scale (0 = rarely or none of the time, 3 = most or all of the time) are summed to form a depression score (range 0-60), and a cutoff of 16 determined depression status.

Analysis

Sample characteristics such as the child's sex and race; mother's age, education, and depression status; and household structure were summarized by the time of the interview. We computed the incidence of child maltreatment reports at any time during the intervals: birth to T4, T4 to T6, and T6 to T8 (maltreatment was counted only at first in each interval occurrence for each participant, i.e., ever versus never). We used a two-tailed Fisher exact test to compare maltreatment frequencies in each interval by household structure (single mother, two biological parents, biological mother and nonbiological partner).

To further explore the association between child maltreatment and household structure while controlling for potential confounders (some confounders such as maternal depression score being measured repeatedly over time), we used the generalized estimating equation (GEE) approach with robust variances as described by Liang and Zeger (1986). Odds ratios (ORs) of child maltreatment for father (or nonbiological partner) presence in the home versus no maternal partner in the home were computed from fitted marginal models. Mother's age at the child's birth, mother's education, child's race and sex, receipt of AFDC, number of siblings in the home, mother's depression score, and current length of follow-up (time from baseline to current interview date) were included in the initial general model to explore their potential confounding effect. If, according to this model, an independent variable was not found to be significant at the .10 level of significance, we dropped that variable from the model. We dropped one variable at a time while monitoring the effect of eliminating that variable on the reduced model and thus obtained our final working model that included mother's education, child's race, receipt of AFDC, number of siblings in the home, mother's depression score, and current length of follow-up. Although interactions between household structure and marital status or AFDC were also considered, none were

found to be statistically significant. Approximate 95% confidence intervals (CIs) for the ORs were calculated, using robust variances to account for the intrasubject correlations arising from repeated measurement of child maltreatment during the course of follow-up. We used the implementation of GEE available in the SUDAAN software (Shah, Barnwell, & Bieler, 1996).

It seemed reasonable to assume a lag period between the time of partner presence in the home and subsequent report of maltreatment. Thus, we considered a model in which the log odds of the marginal probability of the i th child being reported for maltreatment by time t is linearly related to exposure and predictor variables at time $t - 1$. A model for this situation would take the following form:

$$\text{logit}[\text{Pr}(y_{ij} = 1)] = \beta_0 + \beta_1 x_{i(j-1)t} + \beta_2 x_{i(j-1)2} + \dots + \beta_q x_{i(j-1)q}$$

where the regression coefficients $\beta_0, \beta_1, \dots, \beta_q$ can be interpreted as the effect of the covariates averaged across clusters (i.e., children).

RESULTS

Descriptive Data

Of the 788 mother-infant pairs interviewed at T1, the 644 who met eligibility criteria were included. Recruitment into the follow-up cohort was limited by the availability of funds. Of the 644 pairs, 196 maternal respondents were interviewed at T4 and 183 at T6. The child sex and race distribution of the sample did not differ over time (see Table 1). Prevalence of biological fathers living in the home decreased from 41% at the time of the child's birth to 29% at the T4 and T6 interviews. Conversely, the prevalence of nonbiological partners in the home increased from 3% at T1 to 18% at the T4 interview and 14% at the T6 interview. The proportion of mothers classified as clinically depressed (CES-D depression score ≥ 16) was somewhat higher at baseline compared to follow-up interviews (43% vs. approximately 35%). At baseline, 34% of mothers were receiving AFDC income, whereas participating in the AFDC program was 49% and 43% at T4 and T6, respectively. The average number of siblings in the baseline sample was 0.7, compared to approximately 1.5 at follow-up interviews.

Table 2 gives the prevalence of maltreatment reports during the follow-up periods birth to T4, T4 to T6, and T6 to T8. Among the 644 mother-child pairs on whom T1 interview data were obtained, 221 (34%) of children were reported for maltreatment over approximately 4 years of follow-up. Twenty-nine chil-

TABLE 1: Descriptive Characteristics for 652 Children at Risk for Maltreatment

	T1 (n = 644)	T4 (n = 196)	T6 (n = 183)
Child's sex (% male)	48	45	45
Child's race (% non-White)	61	62	63
Mother's age at interview (mean years)	22	26.7	28
Mother's age at child's birth (% younger than 20 years)	45.8	50.5	46.9
Mother's education (mean years completed)	10.8	11.3	11.3
Biological mother married (%)	34	36	38
Biological father in home (%)	41	29	29
Other partner in home (%)	3	18	14
Aid to Families With Dependent Children (%)	34	49	43
Siblings in home (mean)	0.7	1.4	1.5
Depression (% at or above clinical cut point)	43	35	36

NOTE: T1 = baseline interview a few weeks after infants' births; T4 = follow-up interview at age 5; T6 = follow-up interview at age 6.

TABLE 2: Prevalence of Maltreatment by Male Partner Presence in the Home

Maltreatment Report Value ^a	Overall	No Male Partner	Biological Father	Stepfather/ Boyfriend	p
Cohort size at T1	644	361	264	19	
Percentage T1-T4	34.3	29.9	35.2	79.0	< .001
Cohort size at T4	196	105	56	35	
Percentage T4-T6	14.8	15.2	10.7	20.0	.447
Cohort size at T6	183	104	53	26	
Percentage T6-T8	15.3	18.3	3.8	26.9	.006

a. Fisher's exact p value for test of association between household structure and risk of maltreatment report.

dren (15%) in the T4 cohort and 28 children (15%) in the T6 cohort were reported for maltreatment in the intervals T4 to T6 and T6 to T8, respectively. Only one third of these were first time reports. Within each time interval, the prevalence of maltreatment was highest in households in which a nonbiological partner was present. For the first period, single-mother households had the lowest prevalence of maltreatment reports; in subsequent periods, households with biological fathers present had the lowest risk of a maltreatment report.

Regression Analyses

The number of interviews each mother contributed to the regression analyses ranged from one to

three; 438 contributed data at one time point (including 8 who were not eligible at T1), 55 at two time points, and 159 at three time points. There were no significant interactions between household structure and marital status or participation in the AFDC program. Child's sex, mother's age at the child's birth, and marital status were dropped from the model because they did not confound or modify the relationship between partner presence in the home and the child's risk of maltreatment. Participation in the AFDC program, race, mother's education, maternal depression, and number of siblings in the home were found to be independently predictive ($p < .10$) of maltreatment report and thus were included as potential covariates in the final model.

Table 3 gives results from the final marginal model. The odds of having a child maltreatment report during the study period were higher for households with a nonbiological partner than for either households with both biological parents (OR = 2.6; 95% CI, 1.4-4.7; $p = .003$) or households with the biological mother only (OR = 2.0; 95% CI, 1.1-3.5; $p = .021$). Although the risk of a child maltreatment report in households with both biological parents was lower than that for single mothers, this difference was not statistically significant (OR = 0.77; 95% CI, 0.49-1.22).

DISCUSSION

Looking longitudinally at a cohort of at-risk children followed from birth, logistic regression analyses demonstrate that the presence of a nonbiological father figure in the home increases the risk of a maltreatment report more than two times above that for families with both biological parents in the home. The risk of maltreatment given the presence of a father surrogate in the home is twice that of female-headed families with no male partner in the home. The longitudinal design and analysis results suggest a temporal relationship between the presence of a father surrogate and the subsequent risk of a maltreatment report. Another important finding is that the significant effect of the coresidence of nonbiological father figures persists after adjusting for controls and potential confounders, especially those variables that predicted a child maltreatment report in previous analyses of these data, namely maternal depression, number of siblings, receipt of AFDC, and maternal education (Kotch et al., 1995, 1997, 1999).

The presence of a biological father in the home is associated with the lowest risk of a maltreatment report in this population, although the difference in maltreatment reports for children with two biological parents in the home compared to just the biological

TABLE 3: Odds Ratios (ORs) and 95% Confidence Intervals (CIs) for the Association Between Father or Father Figure Presence in the Home and Risk of Child Maltreatment

Variable	p Value	OR(95% CI)
Partner vs. no male partner	.021	2.0 (1.1-3.5)
Partner vs. biological father	.003	2.6 (1.4-4.7)
Biological father vs. single mother	<i>ns</i>	0.77 (0.49-1.22)
Aid to Families With		
Dependent Children	< .001	2.5 (1.7-3.7)
Race (White vs. non-White)	< .001	2.3 (1.6-3.5)
Mother's Education (high		
school vs. < high school)	< .001	0.5 (0.4-0.7)
Number of siblings in home ^a	< .003	
Depression (≥ 16 clinical cutpoint)	.01	1.6 (1.1-2.2)

a. $\beta = 0.35$.

mother was not significant. Nevertheless, the presence of a nonbiological father figure in the home should be considered a significant predictor of a future child maltreatment report. Given these results, greater attention should be focused on interventions to reduce the risk associated with the presence of nonbiological father figures in the home.

This study has several limitations. First, the population was overwhelmingly at risk for maltreatment. Of the 644 participants included in the baseline interviews for this study, 37% had been reported for maltreatment by the age of 8. Also, families who have been reported to CPS may be at higher risk of a subsequent report because of the fact that they had been investigated by CPS before. In this study, we included reports of all types of maltreatment, without differentiating between substantiated and unsubstantiated cases because substantiation rates may vary by local agency. Also, experts consider differences between substantiated and unsubstantiated reports to be of degree rather than substance. Although the use of all CPS reports as an indicator of maltreatment introduces measurement error, there is evidence that many unsubstantiated reports do indeed involve maltreatment (Drake, 1996; Giovannoni, 1989). Although some findings support the use of unsubstantiated reports for many school and delinquency behavior outcomes, the consequences of unsubstantiated and substantiated reports do not differ (Leiter, Myers, & Zingraff, 1994). Finally, we could not separate subtypes of maltreatment in our analysis because unsubstantiated reports from the state central registry do not define maltreatment events beyond the all-inclusive abuse and/or neglect categories.

This study does not differentiate between stepfathers and mothers' boyfriends because of the small number of stepfathers in this population. Most of the

literature on child abuse and nonbiological father figures focuses mainly on stepfathers and not on other partners in the home. The majority of partners in this study, however, are mothers' boyfriends. Therefore, caution should be taken when generalizing these findings to only stepfathers. On the other hand, because stepfathers are married to the biological mothers, they may have a greater investment and closer ties to the mothers' families than boyfriends, who are more likely to be transient. On the other hand, because of this greater involvement in the family, stepfathers may also feel more resentful toward their stepchildren if they are not able to form a close bond with them, which may lead to maltreatment.

This study does show that there is something associated with having a surrogate father in the home that increases the risk of a subsequent child maltreatment report. Possible explanations can be drawn from the literature, such as the stress of economic hardship or the lack of investment in unrelated dependent children leading to maltreatment in one form or another. Some research indicates that stepfamily members have more employment problems and are younger at the time of first marriage and first birth (Daly & Wilson, 1985). Mothers often rely on male partners for income. If their partners physically or sexually abuse them or their children, or bring drugs into the home, then mothers are faced with the dilemma of either not having resources to raise their children or putting themselves and their children in a dangerous situation by allowing the partner to live in the home (Edin & Lein, 1997). One study focusing on the father's role in neglectful families found that men in these families, even if they are not directly abusive, constitute a greater source of stress for the child and mother than a source of support and nurturance (Polansky, Chalmers, Bittenweiser, & Williams, 1981). If the male figure is not providing economic or social support to an already deprived household, then he could be an additional burden on the already stressed mother. In light of the results of these studies, it becomes even more important to determine if the mother is doing the maltreating due to additional pressures from having a partner in the home or if indeed it is the partner who is the perpetrator. In North Carolina, it is possible for the mother to be reported for neglect if, in fact, the maltreatment was abuse by a noncaregiver. Therefore, until it is clear whether the nonbiological male is actually the one doing the maltreating, careful consideration must be used before drawing any conclusions about the identity of the perpetrators. In the future, we plan to have reviewed case records of maltreatment reported to

local CPS agencies; thus, we should be able to determine the actual perpetrators.

Nearly one half of all children who spend some part of their childhood with a single mother will eventually spend some period of time with a stepfather. Nearly half of these new marriages will end in divorce before the child reaches 18 years (Bumpass & Sweet, 1989). Thus, it is likely that multiple disruptions in the family will occur, increasing the chances for another partner to come into the home. Research indicates that the disruption of relationships between biological parents and living in the presence of a stepfather increase the risk for child sexual abuse (Brown, Cohen, Johnson, & Suzanne, 1998; Fergusson et al., 1996; Finkelhor et al., 1990). In addition, stepfathers are not as close to their stepchildren as they are to their own biological children, and they are less affectionate and more coercive with their stepchildren (Henderson & Dalton, 1995). Stepchildren also tend to be less warm and affectionate with stepfathers than with their own biological parents (Hetherington & Clingempeel, 1992). This distance between stepchildren and stepfathers also occurs in long-term, fairly successful stepfamilies, suggesting that stepfathers may never achieve the close bond that biological fathers can achieve with their children (Hetherington & Henderson, 1997). Research needs to be done to determine whether stepfathers and other nonbiological partners have a different profile on individual or group characteristics than biological fathers and if those characteristics contribute to maltreatment.

Given the results of our analysis, more attention should be focused on the risk of maltreatment associated with the presence of nonbiological father figures in the home. Although society stigmatizes single parenthood, children may be better protected from abuse and neglect without having the partners of their single mothers in their homes. Rather than penalizing or stigmatizing single mothers, providing greater services to them and greater support to mothers with live-in partners may reduce the risk of child maltreatment reports. For example, developing and sustaining adolescent pregnancy programs that provide both financial and emotional support to teen mothers may result in their being less inclined to invite new partners into the home. CPS workers have been criticized for failing to engage fathers and surrogate fathers in their casework (Corby, 1987). For families who already have surrogate fathers in the home, interventions should target CPS workers to focus more of their attention on the high-risk relationship between a surrogate father and the children. Furthermore, CPS substantiation policies should be reconsid-

ered. Anecdotal data from our own current research, using actual case record reports from CPS, suggest that when a surrogate father maltreats a child, the mother is the one substantiated for neglect for failing to protect her child. The surrogate father, who may have initiated the maltreatment, is then lost from the official central registry database. This policy often obscures the true nature of the initial maltreatment episode. In our future research, we will analyze the maltreatment episodes by actual perpetrators of each act rather than by substantiated individuals.

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The Effect of Fathers or Father Figures on Child Behavioral Problems in Families Referred to Child Protective Services

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This study examines some possible effects of the presence and quality of parent-child interaction of fathers and father figures on the behavior of young children in a sample of families reported to child protective services. Whereas the presence or absence of a father or father figure seemed to make little difference in child behavioral problems at age 4, lower levels of aggression and depression were observed for children by age 6 if an adult male in some form of father-like relationship was present in the child's life. When controlling for mother's ethnicity, child's gender, the number of referrals to child protective services, and the presence of domestic violence, the direct effect of a father/father figure was no longer significant but remained in the multivariate models as a significant interaction term.

Study Objectives

The objective of this study was to examine the effect of fathers and father figures, in a sample of families frequently reported to child protective services (CPS) for child maltreatment, on the behavior and health of young children.

Review of the Literature

Much of the research on the effect of fathers on children has focused on "normative" families. Our principal motivation in conducting this study was to attempt to examine the influence of fathers and father figures in more troubled and transitory fami-

lies. Stereotypically, fathers or other adult males in households troubled by economic hardship, violent styles of conflict, and chronic drug usage are portrayed as detrimental influences if not outright primary perpetrators. Although this is no doubt the case in many households served by CPS, the potential positive influences of fathers and father figures remain largely unknown. Here, we first review the literature on normative families then discuss what has been found to date concerning the role of fathers in families likely to be served by CPS. As we describe below, a primary lesson from the research thus far is that the influence of fathers on young children is more indirect than direct in normative families, and there are indications that the strength of any direct effect is further attenuated as families become less cohesive. Some research has shown that there are measurable direct effects, if the presence of fathers or father figures is carefully delineated. As we show in this study, the detection of indirect effects (interaction terms) requires careful attention to the definition of variables, adequate sample size, and appropriate statistical methodologies.

Lamb (1997) recently reviewed the research literature on the effect of fathers on child development. He indicated three main areas of findings among the

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studies: First, parental warmth, nurturance, and closeness are associated with positive child outcomes regardless of parent gender; that is, individual parental characteristics play a more important role than parent gender. Second, characteristics of fathers such as masculinity, intellect, and warmth are much less important than the characteristics of the relationships with their children. Third, individual relationships are seen as less influential than the family atmosphere or relational style. He concluded, "The absence of familial hostility is the most consistent correlate of child adjustment, whereas marital conflict is the most consistent and reliable correlate of child maladjustment" (p. 13) and "the extraordinary importance of indirect influences is now recognized universally" (p. 3).

Lewis (1997) echoed Lamb's assessment, summarizing the state of knowledge concerning the impact of fathers on preschool-aged children in this way:

The research on fathers has forced us to reconsider the nature of family relationships. Rather than looking for simple cause-effect patterns we have had to turn to examine the effects of a network of family relationships on the child's development. Such a network may or may not contain a father figure, and this figure may or may not be biologically related to the child. . . . The family is thus a sociological microcosm where negotiations between members and displays of affection, interest, and instruction may tell us more about the system than the individuals concerned. As members of that system fathers are important, but only in specific contexts do they have unique or specific effects on the development of preschoolers. (p. 142)

Billar and Kimpton (1997) have examined the effects of father absence on school-age children: Both boys and girls in single-parent or father-absent households exhibit lower ability in motor and manipulative tasks than children in households where a father is present, and boys but not girls show lower math ability. Families with a father surrogate (e.g., stepfather) did not show lower scores in these areas than families with a biological father. Both boys and girls in father-absent households also have lower IQs and cognitive functioning scores, although the effect on girls is less. Low socioeconomic status increases these detrimental effects. They conclude that school-age children in father-absent households are at risk for the development of psychological problems, poor social/peer interactions, and intellectual and social competence.

In an earlier review, Belsky and Vondra (1989) discussed a number of studies that suggest an indirect role of fathers on child functioning during infancy, where the capacity for nurturance in the mother is

mediated by the quality of her relationship with the father. Tension and conflict between spouses tend to diminish the mother's expression of affection toward the infant. It is difficult to measure any direct influence of the father on the infant's temperament or behavior. Indirectly, though, fathers can exert considerable influence. Crnic, Greenberg, Ragozin, Robinson, and Basham (1983) found that the mother's level of satisfaction with spousal support was the most significant predictor of the mother's attitude toward parenting and the face-to-face affect she displayed toward her child.

If this lack of direct father influence is true in relatively stable, normative families, then the effects of fathers and father figures could possibly be even less in families where the presence and identity of the adult male are transient and changeable. If there is a measurable "age of onset" at which the direct influence of adult males on children becomes significant, one might reasonably expect that in homes with a greater transience of father figures, this age will move to progressively later and later years. For families engaged in chronic child maltreatment, Polansky, Gaudin, Jr., and Kilpatrick (1992) have introduced the notion of "family radicals"¹ to describe the fluid and changeable character of households typically served by CPS. They show that the mother-child (or mother-children) unit is relatively stable but moves from place to place, with various other relatives and partners coming and going.

Other than the mother, children in these families are exposed to a number of more-or-less transient adults, who likely vary considerably in the degree of surrogate parent and/or disciplinary functions they assume. The effect of any one individual would thus be dilute and difficult to measure. Survey instruments that take this complexity into account are much needed for this population.² From a methodological point of view, the proper detection and modeling of fathers' influence would also require a shift away from "main effects" models, a careful examination of potential interaction terms, longitudinal rather than cross-sectional studies, and an even greater emphasis on adequate sample sizes.

Although numerous investigations have examined the characteristics of maltreated children (cf. the review by Knutson & Schartz, 1997), there have been very few studies that have examined the role and effect of fathers and father figures in maltreating or chronically troubled households. In an earlier LONGSCAN (Longitudinal Studies of Child Abuse and Neglect) multisite study of resilience in maltreated children, Runyan and colleagues (1998) constructed a social capital index that included having

two parents in the home as one of the components. This index was strongly associated with (improved) child well-being, but the two-parent component was not one of the individual indicators that best discriminated between levels of child functioning. (Those that did were measures of church affiliation, caregiver perception of personal social support, and support within the neighborhood.)

In research conducted at another of the LONGSCAN sites, Dubowitz, Black, Kerr, Starr, and Harrington (in press) have very recently studied the association between father involvement and child neglect. In a sample where rates of neglect ranged from 11% to 30% (depending on the measure of neglect used), 72% of the children had a father or father figure identified by the mother. Father absence alone was not associated with child neglect; however, in families with a father, higher degrees of father involvement (duration, parenting efficacy, and involvement in household tasks) were significantly associated with less neglect. These were main effects in a multiple regression model that controlled for HIV risk, child with failure to thrive, child gender, maternal age and education, and number of adults in the home. Black, Dubowitz, and Starr (1999) earlier showed direct effects of father involvement and child behavior and development. These studies together indicate that the effect of fathers on measures of child health, behavior, and development is measurable and significant in a population of children at risk for maltreatment, and the effect of fathers in moderating or counterbalancing maternal neglect may be quite important.

On the possible effect of biological fathers versus nonbiological or other adult male father figures, Furstenberg and Harris (1993) reported a general lack of effect on child outcomes. Whether fathers actually lived in the home also did not make a difference. Consistent with the general findings from the literature on biological fathers reviewed by Lamb (1997) and Lewis (1997), major benefits for the children were reported if the fathers or father figures had a close relationship with the children (Furstenberg & Harris, 1993), and, in 3-year-olds, better child behavior and development were associated with more nurturant fathers, regardless of the marital or residence status of these men (Black et al., 1999). Mott (1990) also showed that fathers and other adult males can play an important role in the lives of children in low-income, nontraditional families even when they do not live in the home.

For a general population of families, Hawkins and Eggebeen (1991) discovered no significant differences in intellectual and psychosocial functioning of

children in disrupted families where some pattern of coresidence with a father or father figure is maintained following disruption compared to children in intact families. Nord and Zill (1996) reviewed and reported findings from the Survey of Income and Program Participation on the degrees of involvement of noncustodial parents in their children's lives and found higher levels of contact if the fathers enter into a voluntary versus a court-ordered support agreement and higher levels of support compliance in joint custody versus sole custody arrangements. However, a study by King (1994) found no detectable benefits of the degree of nonresident father visitation and involvement on child behavioral problems, perceived scholastic competence, feelings of self-worth, mathematics or reading achievement, school delinquency, or emotional health, with the possible exception of a positive relationship between child support payments and academic achievement.

Major gaps still exist in our understanding of the relative impact of fathers and father figures on children, especially on children living in less fortunate circumstances and/or with maltreating caregivers. This article reports the effect of fathers and father figures on the health and behavior of young children who have been the victims of multiple instances of child maltreatment, as measured by referrals to CPS. Statistical modeling methodology that is particularly well suited to the detection of interactions is used.

METHOD

Overview

The data were obtained during interviews with the primary caregiver when the child was 4 and 6 years of age, interviews with the child at age 4 and 6, and abstraction of CPS case files and teacher reports via mail. Each interviewer had to meet an interrater reliability standard of .90 kappa before they could proceed with administering the interview protocol with the primary caregiver and child. A similar process was used for case record extraction. All bivariate associations reported below as significant are adjusted for multiple comparisons using the Bonferroni correction.

Sample Description

Participants for this analysis represent a subset of the participants in the longitudinal (LONGSCAN) study examining the long-term effects of maltreatment on children's health and development. This analysis includes data collected on one child welfare-identified population ($N = 261$) in the Northwest

(NW) at the age 4 and age 6 interviews. The NW LONGSCAN sample is a cohort of the children referred to CPS for abuse/neglect but who may or may not have been substantiated for maltreatment at the time of recruitment into the study. All children in the NW sample were assessed by CPS intake staff as moderately or highly likely to be maltreated in the future absent intervention.

Dependent Variables

Three dependent variables were included in our analyses: a teacher report of two aspects of the child's behavior and a primary caregiver's report of the child's general health and specific health problems. Data on the dependent variables were collected from the primary caregiver during an in-depth interview and from the child's primary first-grade teacher using a mail survey, the Teacher Report Form version of the Child Behavior Checklist (CBCL) (Achenbach, 1991). The Aggression and Depression subscales were selected as representative measures of externalizing and internalizing child behavior and because they showed the largest, most significant differences with various measures of father or adult male presence in the household. (The primary caregiver's report on the same behaviors, using the CBCL, showed similar relationships but smaller-magnitude differences.) Child health problems were measured using a LONGSCAN-developed protocol that asked the primary caregiver to rate the child's health compared to other children of his or her age. The total number of identified problems was used as a measure of child health, and a bivariate yes/no variable (any health problems) was also constructed. Preliminary tests indicated that the only significant associations with father or male presence variables were with this yes/no health problems variable, so only this variable was used in subsequent multivariate analyses.

Independent Variables

Extensive data from multiple domains were collected from the child and primary caregiver including child characteristics, family/parent characteristics, parental and family functioning, extrafamilial relationships, community ecology, child outcomes, and system of care factors including service utilization and maltreatment history. Child-related demographic variables included age, gender, ethnicity, and birth order. Primary caregiver demographics included age, race/ethnicity, marital status, education, and employment status. If there was a spouse/partner in the home, education and employment status of the spouse/partner were included. Family characteristics included income; family size; source of income; reli-

gious affiliation; observed level of child stimulation in the home; partner status at baseline, age 4, and age 6; and father involvement with the child. Child, primary caregiver, partner, and family characteristics were all collected using a LONGSCAN-developed data collection instrument. Primary caregiver functioning includes measures of health status, illness/injuries interrupting life activities, overall health, depression, substance use/abuse, measures of everyday stressors, functional social support, measures of family cohesion/health, parenting skills and abilities, and conflict tactics with child and with/from partner. Specific instruments used in the multivariate models are described in greater detail below.

One constructed demographic variable concerning religious affiliation was used in later modeling. From the religious affiliation questions, "In the last year, how often did you attend religious or spiritual services?" (never, 1-2 times, 3-12 times, . . . more than once a week) and "How important are your religious or spiritual beliefs in the way you raise your children?" (not important, somewhat important, very important), we defined a dummy variable for "strong religious orientation" if the respondents endorsed a frequency of attendance of 3 to 12 times per year or greater and if their beliefs were "very important" in how they raised their children. Seventy-six respondents fell into this category, or 38% of the sample.

We also collected extensive case information from CPS electronic and case file records. Case characteristics including measures of the child's maltreatment experience since birth were included in the analysis based on reports to CPS. These data include the number, type, and severity of CPS referrals by age 6, using both CPS-defined definitions and our own coding of maltreatment records using a revised and expanded version of the child abuse/neglect typology developed by Barnett, Manly, and Cicchetti (1991, 1993). For this study, we simply use the total number of referrals to CPS as a crude proxy measure for the degree of hostility and/or neglect directed toward the children in our sample. From birth to the time of the age 6 interview, the total cohort of 238 children has been the subject of 1,085 referrals to CPS involving 1,409 separate allegations of abuse and neglect. Research currently in progress will attempt to more completely describe the maltreatment experiences of these children and the differential effects that maltreatment may have on their health and development.

Finally, we collected information on domestic violence (DV) by caregiver's self-report, social worker reports in CPS referrals, and child witnessing. Caregiver's victimization history is gathered using a LONGSCAN-devised questionnaire (Hunter &

Everson, 1991) that asks questions such as, "Have you ever been physically assaulted as an adult by a husband or partner?" Victimization data are collected for physical, sexual, and psychological abuse by various types of perpetrators for the caregiver as a child, teenager, and adult. Current DV is assessed using the violence items from the Partner-to-Partner Conflict Tactics Scales (Straus, 1990). Child witnessing is assessed using DV-specific items from "Things I've Seen and Heard" (Richters & Martinez, 1993). Data from these instruments are combined to construct a longitudinal, composite DV variable, with categories of no DV ever reported from any source, history of DV only, and current DV (with or without history) (see English & Marshall, n.d., for further detail). Of the total age 6 cohort of 238, 213 or 84% of caregivers have had DV indicated at some point in their adult lives; 23 or 14% self-report current DV at the age 6 interview; and 64 (27%) are indicated for current DV by self, child report of witnessing, or CPS report.

Measures of Father Presence and Involvement

We obtained at each interview (baseline, which for our sample includes children from ages 1 to 4, with most being ages 2 or 3; age 4; and age 6) a list of all household members and their relationship to the subject child as well as the presence and relationship of any adult partners of the child's primary caregiver/respondent. Combining this information, we constructed variables indicating partner identity and relative stability of the relationship across the three measurement points. At age 6, we also administered the Father Figures/Father Involvement Questionnaire. This LONGSCAN-designed instrument begins by asking (a) Who would you consider to be the primary father in [your child's] life? and (b) What is his exact relationship to [your child]? Four questions on level of involvement follow, scaled from 4 (*a lot*) to 1 (*none*): How much time does he spend? How much does he show he cares about (talks to, comforts, reassures, encourages, etc.)? How much does he contribute to everyday care (feeding, dressing, supervising activities)? and How much does he take care of financial needs (food, clothing, school supplies, play things, medical care, etc.)? Data are also collected on a second father figure, if one exists.

Using the demographic and father involvement information, and items such as partner moving in or out, separated, reunited with a partner, and so forth from the Life Experiences Survey (Sarason, Johnson, & Siegel, 1978), we constructed several alternative representations of adult male presence and interactions: (a) a father or father figure, identified by the child's mother at child's age of 6 as a "primary father in [your

child's] life," regardless of the biological or nonbiological relationship between father figure and child; the type of relation is also defined (biological father, grandfather, step, foster or adoptive father, other male relative, nonrelated male) and (b) an adult male identified by the mother as residing in the home; changes in this position (presence, absence, change in person) were captured by comparing answers to the home composition questions over time (a maximum range of 1 year to 6 years). Categories were defined by type and by changes (stable, unstable) and level of father involvement (emotional, physical, financial) in the child's life, as identified by the child's mother.

Data Set Construction

Of the 238 families remaining in the sample by the age 6 interview, 198 had no missing data in any of the key family composition variables or in the instruments essential to the final multivariate modeling. In this sample of 198 families, 16 of the respondents/primary caregivers at the age 6 interview were the children's biological fathers. To avoid interpretive conundrums, these families were removed from the sample, giving a final $N = 182$ for the analysis data set. For this final set, 133 of the respondents were biological mothers (73%). The remainder were grandmothers (10%), other female relatives (7%), adoptive mothers (3%), and foster mothers (7%). Because there were no significant differences among these respondents with respect to the model variables, and because the focus of this study is on the effects of both fathers and father figures regardless of residential status, all of these remaining types of respondents were included in the analyses.

Demographic Composition of the Sample

For the analysis data set ($N = 182$), the racial/ethnic proportions (caregiver) were 63% Caucasian, 20% African American, 3% Hispanic, and 14% mixed/other. The child proportions were somewhat different, with a lower proportion of Caucasians (51%) and higher proportions of African Americans (22%) and especially mixed/other (24%). By the primary caregiver's designation, 24% of the children were identified as being of a different race/ethnicity than their own. Fifty-four percent of the participant children were male and 46% female. Sixty-six percent of these children were residing with their biological mothers at each of the three LONGSCAN interview points (ages 1-3, age 4, and age 6). Thirty-four percent of the caregivers were married at the time of the age 6 interview, 32% separated/divorced, and 34% single. Forty-six percent of the caregivers reported an annual

household income of less than \$15,000. The proportion of this analysis set that has current DV indicated (26%) is nearly identical to that for the total cohort of 238. The 182 children have been the subjects of 856 referrals to CPS from their birth to the age 6 interview, with a mean number of referrals = 4.7 ($SD = 3.6$). One hundred four or 57% have been referred for some combination of neglect and one or more of physical, sexual, and/or emotional abuse. In about one quarter (25.7%) of referrals, fathers or father figures were identified as perpetrators in at least one referral.

Multivariate Analyses

Generalized Linear Models (GLM) (McCullagh & Nelder, 1989) were constructed using the software package SPLUS (versions 4.5 and 2000) for each of the outcome variables: teacher report of CBCL aggression and depression and any child health problems, yes/no. Prior to final model construction, candidate dependent variables were selected from the very large number of available LONGSCAN variables using bivariate screening (variables significantly associated with the outcome variables) and screening using multivariate neural network models of each outcome variable. Neural networks are a particularly efficient and sensitive means of detecting possible second-order and higher order interaction terms (Marshall & English, 2000) and can give model results with often dramatically better fits to the data and outcome classification accuracies than multiple or logistic regression in situations where interactions between explanatory variables are common (English, Marshall, Coghlan, Brummel, & Orme, 1999).

Candidate main effects and interactions were then entered into GLM models and nonsignificant terms removed and added back in an iterative, stepwise variable elimination procedure. The link and variance functions used in the GLM models were appropriate for the distributions of each outcome variable: For the Teacher-Reported Depression and Aggression subscales, the distributions of these outcomes was Poisson-like, with a slight overdispersion from a true Poisson distribution (variance greater than the mean). Thus, a robust quasi-likelihood distribution with a logarithmic link function and variance equal to the mean was used. (The quasi-likelihood indicates that the precise form of the distribution is not specified but estimated in an iterative procedure; an overdispersion term is included in the model, to account for the actual distribution deviating from that of a true Poisson [McCullagh & Nelder, 1989].) For the child health problems dichotomous outcome variable, a logistic regression model is appropriate, so the GLM model was constructed with a (robust) binomial

link function. The use of robust statistics allows more accurate estimates of parameter variances when there are deviations in the explanatory variables from normality and provides a more conservative estimate of parameter significance (Rosseeuw & Yohai, 1984; Yohai, Stahel, & Zamar, 1991).

RESULTS

Family Compositions

The different types of primary fathers and father figures identified by the primary (female) caregivers for the 182 children of the analysis sample include 70 biological fathers (38%); 31 unmarried, non-biological males (17%); 16 stepfathers (9%); 7 foster fathers (4%); 20 other male relatives (11%); and 14 "other" (8%). Twenty-four or 13% of caregivers indicated that there was no father figure in the child's life. Note that the prevalence of biological fathers in the general population is 70% (National Incidence Study-3, section 8-8), or nearly twice the prevalence noted for this sample. In the female caregiver ratings of the quality of involvement (maximum score 16), the mean and median were 12 with a minimum score of 4. Of the sample, 12% were rated 16, and 50% of the sample were rated at 12 or above. A rating of 16 corresponds to the answer "a lot" to each of the questions, How much time does he spend, how much does he show he cares, how much does he help with everyday child care, and how much does he take care of financial needs?

At the age 6 interview, for the biological mothers only, 31% were in a stable relationship with a partner, 22% were in an unstable relationship (one that had undergone some sort of disruption within the year), and 19% indicated they did not have a partner. Twenty-two percent were in a stable relationship across all measurement points. There was a significantly higher proportion of biological mothers in a stable relationship at the age 6 interview if the male was the child's biological father (52%) than in the sample as a whole (31%) (chi-square probability of no association $< .0001$). There were, however, no significant differences between type of father figure and DV status.

Bivariate Associations and Interactions

We tested the bivariate significance of various measures of father figure identity, presence, and involvement against the outcome measures, demographic variables, and instruments in other key domains. Whether considering only biological fathers, biological fathers plus other male relatives, or any type of

father figure, the presence of a father or father figure was associated with significantly lower child depression scores (raw TRF [Teacher Report Form of the CBCL] Anxious/Depressed subscale) (*t* test probabilities of .027 for biological fathers to .001 for any type). The reduction in the mean score was approximately 35% to 50% compared to those children without a father figure. This lack of distinction between types of father figures is consistent with the findings by Furstenberg and Harris (1993) and Mott (1990). TRF aggression scores were also lower, but not significantly so.

There was not a significant association with measures of child health (total number of health problems or any health problem, yes/no). Likewise, there were no significant bivariate associations between the depression, aggression, and health measures and whether the caregiver reported having an adult partner (of any kind). It is important to understand the distinction between any father/father figure and any partner: These were obtained from different questions to the caregiver. For the first, the caregiver was asked about the presence of a male father figure in the child's life, regardless of whether that male resides with the child or his relationship to the caregiver. For the second, the caregiver was asked if she was involved in an intimate relationship with a male, regardless of that male's relationship to the child.

In testing for interactions among the demographic variables, there were no significant differences between mother's ethnicity and child gender, strong religious orientation, or the presence of domestic violence. African American mothers were significantly ($p < .05$) more likely to have incomes less than the poverty threshold of \$15,000 per year (52% vs. 36% for Caucasians) and less likely to have a stable male relationship from (child) age 4 to 6 (7% vs. 27% for Caucasians) or to be married at (child) age 6 (15% vs. 40% for Caucasians). Finally, there were no significant differences in TRF scores by our measure of caregiver/male partner stability status at the age 6 interview (stable, unstable, or no partner).

Multivariate Results

The multivariate GLM results, using TRF subscores for child depression and aggression as outcomes, are shown in Tables 1 and 2. All the measures of father presence, stability, and involvement were separately entered and tested in these models. The only measure that was significant was the simple presence or absence of a male partner at the age 6 interview. (Similar modeling using outcomes at the age 4 interview did not show any detectable effects of a father, father figure, or male partner presence on child outcomes.)

TABLE 1: Multivariate GLM Regression Model for TRF Aggression Subscale

<i>Model Variable</i>	β	<i>Robust SE</i>	<i>p</i>
Conflict tactics: minor violence	.221	.0566	.0002
Number of CPS referrals since previous interview	.0744	.0167	.0000
Male child	.324	.0810	.0001
African American caregiver	.429	.0914	.0000
Caregiver has no partner	-.0091	.0965	.40
Strong religious affiliation	-.161	.104	.12
Male Child \times Strong Religious Affiliation	.171	.082	.045
African American Caregiver \times No Partner	.255	.091	.0077
No Partner \times Strong Religious Affiliation	-.231	.096	.022
Intercept	1.52	.174	.0000

NOTE: GLM = Generalized Linear Model; TRF = Teacher Report Form of the Child Behavior Checklist; CPS = child protective services.

TABLE 2: Multivariate GLM Regression Model for TRF Depression Subscale

<i>Model Variable</i>	β	<i>Robust SE</i>	<i>p</i>
Conflict tactics: minor violence	.314	.0648	.0000
Number of CPS referrals since previous interview	.096	.0181	.0000
African American caregiver	.331	.114	.0060
Caregiver has no partner	.050	.114	.36
No Partner \times African American Caregiver	.226	.115	.058

NOTE: GLM = Generalized Linear Model; TRF = Teacher Report Form of the Child Behavior Checklist; CPS = child protective services.

The significant association of a male partner is seen primarily in interaction terms.

DV was also entered as a possible control variable, but it too did not have any direct, significant effects on child outcomes and was therefore not entered in the final models. We report elsewhere the results of a detailed analysis of the direct and indirect effects of DV on the health and behavior of young children (English, Marshall, & Stewart, n.d.). Here, we simply control for the presence or absence of DV in the families. This is critically important in a study that seeks to uncover other effects of fathers on child behavior, particularly childhood aggression. Although an earlier study by O'Keefe (1994) showed no association (using the CBCL and Conflict Tactics Scales) between child witnessing of DV and mother-child aggression, there was a significant association between witnessing and father-child aggression. In our own study, we do

see a link between DV and mother-child aggression, but our sample differs: O'Keefe's was drawn from women residing at battered women's shelters, whereas ours is drawn from more-or-less intact, male-in-residence families where the women report themselves as perpetrators of DV at rates about twice their self-reported rates of DV victimization.

For the multivariate model of teacher-reported child aggression (see Table 1), the variables that are associated with higher levels of aggression include the female caregiver's conflict tactics with the child, through her use of minor violence; a higher number of CPS referrals; male children versus female children; and African American caregivers versus Caucasians, Hispanics, and others. The fact that a caregiver has no partner does not have a direct, main effect on child aggression, nor does a strong religious affiliation of the caregiver. However, the absence of a male partner is associated with higher child aggression if the caregiver is African American and lower aggression if the caregiver also has a strong religious affiliation. A strong religious affiliation may be an indication of a strong social support network that somehow compensates for the lack of a male partner. However, we also directly measure social support using the Functional Social Support Questionnaire (Broadhead, Gehlbach, DeGruy, & Kaplan, 1988), and the total score of this instrument was not significantly associated with child aggression or with the various father/male partner variables. Finally, in an interaction effect that is slightly more than the significance threshold of 95% confidence, the combination of a male child and a caregiver with a strong religious affiliation is associated with higher levels of child aggression.

The multivariate model for teacher report of child depression is shown in Table 2. As in the model for aggression, the caregiver's use of minor violence as conflict tactics with the child, the total number of CPS referrals, and an African American caregiver are significantly associated with higher levels of child depression. Again, the absence of a male partner does not have a significant main effect but is significantly associated with higher child depression for African American caregivers. As noted earlier, the principal demographic difference between African American caregivers and caregivers of other ethnicities is the significantly higher proportion of African American caregivers that report an annual household income less than \$15,000. Direct entry of this income/poverty variable did not substantially change the multivariate models, however, and the variable was not significantly associated with child aggression or depression.

A logistic regression model was also constructed, using a dichotomous child health problems variable

as the dependent variable (yes/no, any child health problems reported by caregivers). The overall model quality was rather poor, with a model sensitivity of only 63%. For that reason, the model is not presented in detail here. The one noteworthy feature was that the Father Figure Involvement Scale (caregiver rating) approached significance ($p = .10$) with higher scores (higher father/father figure involvement in the child's life) associated with a lower likelihood of a child having a serious health problem. This was the only indication in any of the modeling attempted here that the quality of involvement, beyond simply the mere presence or absence of a father figure, has a positive impact on the child.

DISCUSSION

The possible associations of the presence of fathers and father figures for this multiply maltreated and CPS-referred cohort of children are seen to be difficult to detect and measure. As in prior research (Belsky & Vondra, 1989; Lamb, 1997; Lewis, 1997), we find that the association of a father or father figure with child measures is detectable only when represented as the presence or absence of a male partner and that this association is significant only in interaction with other characteristics of the sample. These associations, minor at the age 6 interview, are completely absent at the earlier age 4 interview.

The absence of a male partner seems to have a larger association in African American families, possibly because of the greater lack of resources in these families in our sample but also possibly because of other social or cultural differences that we were not able to represent in our data. Dubowitz et al. (in press) also found some indirect, moderating effect of the presence and level of involvement of father figures in African American families, where lower levels of neglect of the child were seen if a father figure was involved in the child's life.

The indirect and rather weak association of the father or father figure on child behavior is not in itself cause to minimize the role of fathers; we, as yet, lack any data either directly from the fathers or father figures or directly from the children about the adult male influences in their lives. Black et al. (1999) found direct effects of fathers on child behavior and development, when father involvement was measured directly from the fathers, pointing to the importance of conceptualizing multiple roles of fathers and using multiple measures and direct reports to adequately determine the influence of fathers. In addition to the careful measurement of the possible direct effects of fathers, past research, as indicated above, has shown

that the role of fathers or father figures in families and on children can also be indirect, and current measurement and analysis methodology is often poorly equipped to detect subtle and indirect influences. As Belsky (1993) stated in his foundational article on the ecological model of child maltreatment,

If, as is now widely acknowledged, maltreatment is a transactional byproduct of processes taking place between parent and child in a family and community context, then studies . . . that examine "main effects" of child characteristics are likely to underestimate the interactive role that factors like prematurity and handicap play in the etiological equation. Null hypotheses are likely to be prematurely embraced because the conceptual meaning of a multiply-determined, transactional process does not get translated into statistical analyses. (p. 419)

Briere (1988) and McClelland and Judd (1993) provided statistical arguments that support this position. We expect that detecting the role of fathers, father figures, and other adult males in the lives of children from troubled households will require careful attention to interaction terms in models. In this study, the caregiver partner variable in the multivariate models (Tables 1 and 2) is significant only in interaction terms; thus, the customary bivariate screening of variables for entry into multivariate models would have eliminated this variable from consideration.

Another indication of an indirect effect of fathers, or at least of adult male partners, is the significant, positive association of the (caregiver-reported) father involvement score with the caregiver's depression score (Center for Epidemiological Studies–Depression Scale): Higher levels of father involvement in the child's life are associated with lower caregiver depression. Lower caregiver depression is, in turn, significantly associated with lower use of minor violence and verbal aggression in the conflict tactics that female caregivers use with their children (English, Marshall, & Stewart, n.d.). As information from subsequent waves of measurement and from other LONGSCAN sites becomes available, we will construct structural equation models to test these indirect pathways of father/male partner influence in families.

There are reasons other than methodological why the association of fathers or father figures with measures of children's well-being could be difficult to determine. First, there are a wide variety of types and relationships of males that act as father figures to the children in this sample: The work of Black et al. (1999) and Dubowitz et al. (in press) demonstrates the beneficial effects on children that can be seen when father is defined broadly. The caregivers rate

these men surprisingly highly in terms of the quality of their involvement with the children, and other research has shown that the type of male, his relationship to the child, and his residence status do not have a differential effect on child outcomes; what is critical is instead the quality of the father's involvement (Furstenberg & Harris, 1993). Second, the duration of the relationship of the adult males to the children in this sample is unknown but likely much more transient than in normative samples. If the family radicals notion of Polansky et al. (1992) is correct, then adult males come and go in these families to a rather high degree. We are presently compiling life histories or trajectories of the children in our sample, using our data and CPS case files, and preliminary analyses suggest that the family radicals picture fits our sample quite well. Despite this, we do measure indirect but still important associations of adult males in these children's lives, further suggesting that even more profound effects may yet be discovered, particularly if we reconceptualize the notion of father figure to include the indirect and cumulative impact of multiple father figures on the behavior, health, and development of children.

NOTES

1. Their term borrows from chemistry, where a "free radical" is a relatively self-contained collection of atoms or molecular subunit that is highly reactive, quickly forming larger units with a wide variety of atoms and molecules. (In this social context, the closer chemical analog is a free radical catalyst that only briefly forms complexes with other molecules before detaching and reacting with another molecule.)

2. In our survey instrument for father involvement at age 6, we are careful to ask the primary caregiver about the person who acts "most like a father to [the child]." We then ask if there is a second person who acts in a father-surrogate role and obtain the same information on this second figure. Much more is needed, however, to capture the total parent-surrogate influence on children in chaotic households.

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Father Involvement and Children's Functioning at Age 6 Years: A Multisite Study

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Research suggests that fathers' involvement in their children's lives is associated with enhanced child functioning. The current study examined (a) whether presence of a father was associated with better child functioning, (b) whether children's perceptions of fathers' support was associated with better functioning, and (c) whether the above association was moderated by the father's relationship to the child, the child's race, and the child's gender. Participants included 855 six-year-old children and their caregivers. Father presence was associated with better cognitive development and greater perceived competence by the children. For children with a father figure, those who described greater father support had a stronger sense of social competence and fewer depressive symptoms. The associations did not differ by child's gender, race, or relationship to the father figure. These findings support the value of fathers' presence and support to their children's functioning. Priorities for future research include clarifying what mo-

tivates fathers to be positively involved in their children's lives and finding strategies to achieve this.

There has been mounting interest in the importance of the roles fathers play, or do not play, in the lives of their children (Lamb, 1997). Research on father "presence" or "absence" has frequently found that presence alone does not significantly influence child outcomes (Black, Dubowitz, & Starr, 1999;

Authors' Note: This research was supported by Grants 90CA1568, 90CA1569, and 90CA1572 from the Children's Bureau, Office on Child Abuse and Neglect, Administration for Children, Youth, and Families and Grants 90CA1401, 90CA1433, and 9-CA1467 from the National Center on Child Abuse and Neglect. Correspondence should be addressed to Howard Dubowitz, M.D., M.S., Department of Pediatrics, University of Maryland School of Medicine, 520 W. Lombard Street-Rear, 1st Floor, Gray Lab, Baltimore, MD 21201; phone: (410) 706-6144; fax: (410) 706-1703; e-mail: hdubowitz@ped.s.umd.edu.

Crockett, Eggebeen, & Hawkins, 1993; Dubowitz, Black, Kerr, Starr, & Harrington, 2000; Mott, 1993). However, father absence, usually studied in White, middle-class families, has been found to have a detrimental impact on children (e.g., Lamb, 1997). In an effort to move beyond this simplistic framework of fathers' involvement in their children's lives, Lamb (1997) has drawn attention to the importance of the quality of the relationship between father and child. A more refined understanding of father involvement has developed based on conceptualizing the different roles fathers can play. For example, Lamb (1987) suggested three components of paternal involvement: (a) engagement (direct interaction with the child, both caregiving and play), (b) accessibility or availability to the child, and (c) responsibility for care of the child (e.g., making decisions, arranging care). Other important paternal roles include those of providing financial support (O'Hare, 1995) and emotional support to the mother (Parke, Power, & Gottman, 1979). Consequently, recent research has examined the nature and quality of the father-child relationship and its influence on children's well-being (Black et al., 1999; Coley, 1998; Dubowitz et al., 2000).

In general, "positive" father involvement has been found to enhance development in preschoolers (Black et al., 1999; Easterbrooks & Goldberg, 1984; Jackson, 1999; Lewis, 1997) and in school-age children (Biller & Kimpton, 1997). Benefits found include children's increased cognitive competence, empathy, and internal locus of control for children with involved fathers (Pleck, 1997; Radin, 1994). Amato (1994) found positive father involvement to be related to self-control, self-esteem, life skills, and social competence in elementary school-age children and adolescents. Another study found that high positive engagement by fathers was associated with fewer externalizing and internalizing behavior problems among their children (Mosley & Thomson, 1995). Rohner (1998) argued that father love is heavily implicated in children's and adults' psychological well-being and health.

The impact of father involvement should be examined in the context of the family environment and system (Cummings & O'Reilly, 1997). For example, the benefits of father involvement may be countered by domestic violence or the abuse of children (Sternberg, 1998). Although fathers have an influence on various aspects of children's functioning, it is not clear how these effects vary across different family contexts, such as biological relationships, race, or gender.

The influence of father figures on children's functioning may depend in part on the way in which the man and child are related, an element of the family environment. Much of the research on fathers has focused on biological fathers, although many children have strong ties to alternate father figures (Lamb, 1997). Silverstein and Auerbach (1999) allowed that fathers may contribute to their children's well-being but argued against a unique contribution made by biological fathers or by being married to the child's mother. Our research examining this issue did not find that fathers' biological status was significantly associated with differences in the functioning or neglect of preschoolers (Black et al., 1999; Dubowitz et al., 2000). Current thinking suggests that it is the quality of the father-child relationship that is key, at least during the preschool years, rather than demographic characteristics, such as biological status (Lamb, 1997). However, the presence of a stepfather does appear to increase the risk for child sexual abuse (Malkin & Lamb, 1994). The possible influence of a father's biological relationship to the child remains an interesting and important question, particularly because of the growing number of children who live with nonbiological father figures at some time during their childhood (Blankenhorn, 1995).

Much of the initial research on fathers has been conducted on White, middle-class fathers, and it is not clear how the relationships between father involvement and children's functioning operate in other racial or ethnic groups. The literature yields controversial findings regarding ethnic differences in paternal roles, as illustrated by Pleck's (1997) review. For instance, McAdoo (1993) has argued that once social class is controlled, there are few differences in the caregiving behaviors of African American and White fathers. Another study found that parenting attitudes and behavior of low- to working-income African American fathers were related to young children's development and were similar to attitudes and behavior among White, middle-income fathers (Kelley, Smith, Green, Berndt, & Rogers, 1998). On the other hand, three studies reported that African American fathers demonstrated higher levels of involvement with their children, compared to White fathers (Pleck, 1997). Lamb (1997) suggested that although there may be universal aspects of father-child relations (e.g., supporting their development) and paternal roles, these should be demonstrated, not assumed.

The child's gender may influence both the relationship between father and child and how that relationship moderates the child's development and

behavior. Most studies have focused on the level or nature of paternal involvement, without necessarily examining the differential impact on boys and girls. In general, research indicates that fathers are more involved with sons than with daughters (Pleck, 1997), and Radin (1994) found this greater involvement with sons was stable over time. However, the gender differential may apply mostly to older children; several studies have not found differences in fathers' involvement with young children according to their gender (Pleck, 1997). Although most of the literature has examined whether fathers are more likely to be involved with their sons or daughters, the impact of fathers' involvement on their children's functioning may vary by the child's gender. For example, paternal deprivation has been found to have a more immediate negative impact on the cognitive abilities of boys than on those of girls (Billler & Kimpton, 1997). In contrast, Coley (1998) found that girls and African Americans benefited more from their relationships with fathers and father figures than did boys and White children.

Very little research on father involvement has examined the relationship from the child's perspective. Although Hwang and Lamb (1997) found corroboration between parents' and children's estimates of paternal involvement, most of what has been done has focused on adolescents (Furstenburg & Harris, 1993; Veneziano & Rohner, 1998). One study of younger children (Coley, 1998) found that third and fourth graders who reported positive relationships with their fathers and father figures had better academic achievement and fewer behavior problems, compared to those who reported less positive relationships. The present article attempts to replicate and extend this finding to a group of high-risk (i.e., low socioeconomic status, maltreated) young children (6-year-olds). The children were asked to report on supportive adults in their lives. Reports of supportive men were related to the children's functioning in a number of domains (e.g., affective, behavior problems, cognitive, self-esteem). Guided by the above research, we examined whether father (or father figure) presence or absence was associated with children's functioning at age 6. Within the group that described having fathers, we hypothesized that children's reports of supportive father involvement would be associated with better child functioning. We also examined whether the associations between father support and child functioning were moderated by the father's relationship to the child (i.e., biological or not), the child's race, and the child's gender.

METHOD

The questions and hypothesis were examined using cross-sectional data from a consortium of ongoing longitudinal studies of children's health, development, and risk of abuse and neglect (LONGSCAN) (Runyan et al., 1998).

Sample

Participants included 855 African American or White children who were approximately 6 years old and their primary caregivers, recruited from the five collaborating sites. The Southern cohort ($n = 216$) was recruited at birth based on a risk profile of demographic and perinatal factors. At age 4, a sample of children who had been reported to child protective services (CPS) was identified and matched 1:2 to children who had not been reported. The Eastern sample includes 246 low-income urban children who were recruited in their first 2 years of life from health clinics due to failure to thrive, risk of HIV infection, or no specific risk factors other than poverty. The Northwestern cohort consists of 165 children reported to CPS prior to age 5 and assessed to be at moderate risk for further maltreatment. The Midwestern cohort ($n = 47$) includes urban children reported to CPS and a comparison group of neighborhood children. Finally, the Southwestern sample includes 181 children who had been placed in foster care before age 4, due to child abuse or neglect. There were relatively few families from other ethnic and racial groups, and they were excluded from the analyses.

Procedure

With the approval of each site's institutional review board, a protocol of common measures and procedures was developed and implemented across all sites. Informed consent was obtained from the mothers and included their children's participation. Mothers participated in a 2-hour face-to-face interview administered by trained research assistants that included measures of demographics, parental functioning, and children's problem behavior. Measures of cognitive development, depression, and perceived competence were administered to the children. Families were compensated with similar financial payments across sites for their participation in the study.

Measures

Independent measures. Father presence was assessed by whether children reported that there was a supportive male adult in their life (i.e., presence of a father or father figure).

Father support was measured using the Inventory of Supportive Figures (Whitcomb et al., 1994). Children were asked, "In your life, has there been any adult who has been especially helpful to you—like a grown-up who has given you a lot of attention, helped you figure things out, or has made you feel better when you were sad?" This was followed by two more prompts (e.g., "Any other adult . . .?"). If they did not identify a biological father or mother, they were specifically questioned about these people. In this study, we focused on the first male described by the child.

Following identification of a supportive adult, children described their perceptions of four types of support received from that adult: companionship, emotional support, practical support, and tangible support (see the appendix). Responses for the four items were coded from 0 (*not at all*) to 4 (*a lot*) and were summed to yield a support score. The measure had adequate internal consistency (Cronbach's alpha = .67).

Dependent measures. Children's problem behavior was measured by the Child Behavior Checklist, completed by the primary caregivers (Achenbach, 1991). Respondents reported on the frequency of 113 behaviors during the prior 6 months (0 = *not true*; 1 = *some-what or sometimes true*; 2 = *very or often true*). Scores were summed to produce externalizing and internalizing behavior scales. Raw scores were used in analyses as recommended by the author (Achenbach, 1991). Higher scores on each subscale indicate more problematic behavior. Achenbach (1991) found good test-retest reliability and good interparent agreement on the scales, with Cronbach's alphas of .89 and .90 (for boys and girls age 4-11, respectively) for internalizing and .93 (for both boys and girls, 4-11) for externalizing behavior.

Children's depression was measured by the Preschool Symptom Self-Report (PRESS), completed by the children (Martini, Strayhorn, & Puig-Antich, 1990). The PRESS is a 25-item pictorial instrument designed to obtain self-reports of depressive symptoms by preschool children. Examples include feeling sad, feeling bad about oneself, and not wanting to play with friends. Items worded in such a way that negative responses indicated depressive symptoms, such as "happy when playing with others," were reverse coded. All items were then summed with higher scores indicating greater depressive symptoms. The internal consistency reliability (Cronbach's alpha) was .83.

Children's cognitive development was assessed by the Vocabulary and Block Design subscales of the Wechsler Preschool and Primary Scale of Intelligence—

revised edition (WPPSI) (Wechsler, 1989). The scores were averaged and converted to a standard score with a mean of 100 and a standard deviation of 15. Factor analyses of the WPPSI yield two principal factors—Verbal and Performance—providing evidence of construct validity for the test and suggesting that for children between the ages of 4 and 6, the WPPSI may be a more sensitive instrument for assessing the structure of intelligence than the Stanford-Binet that provides only a global index of intelligence (Sattler, 1992). The correlation between the Vocabulary plus Block Design short form and the Full Scale IQ has been reported as $r = .83$ (from Sattler, 1992, Table H-6).

Children's self-perceptions of competence and social acceptance were measured using the Pictorial Scale of Perceived Competence and Social Acceptance for Young Children (Harter & Pike, 1983). This is a 24-item questionnaire consisting of four subscales: Cognitive Competence, Physical Competence, Peer Acceptance, and Maternal Acceptance. Because these four subscales were highly intercorrelated (r s ranged from .456 to .551, $p < .001$), an average of the four was computed to give an overall score, with high scores representing greater sense of competence and social acceptance.

Moderating variables. Three variables were examined to see if they moderated the association between father support and child functioning: the relationship of the man to the child (biological father vs. other), race, and child's gender. "Father" was inferred from children's descriptions; all other categories including stepfathers and mothers' boyfriends were combined into "other males." When we considered both fathers and other males, we referred to them as father figures. However, we cannot be sure that the other males actually played the role of a father figure; some of them may simply have been supportive adult males. Race was categorized as White or African American. There were relatively few members of other races or ethnic groups, and they were excluded from the analyses.

Data Analysis

A multivariate analysis of covariance (MANCOVA) was used to examine differences in children's behavior, depression, cognitive development, and overall perception of competence by whether the child stated that he or she had a male support figure. Study site, receipt of Aid to Families With Dependent Children (AFDC), and maternal education were included as control variables. We controlled for potential site differences through dummy-coded variables. We also controlled for socioeconomic status,

using receipt of AFDC as a proxy, and for maternal education because both variables have been associated with children's functioning, particularly their cognitive development. Multiple regression analyses were employed for the group that identified a male support figure ($n = 677$) to examine the association between the level of perceived father figure support and child functioning and to determine if these associations were moderated by child's gender, race, or biological relationship to the father figure. To test for moderating effects, perceived level of support and each of the potential moderators along with the interaction terms (i.e., perceived support by potential moderator) were separately regressed on each measure of child functioning. If any of the interactions were significant, they were included in the final overall model to determine whether the relationships between support and each of the child outcomes were moderated by any of these factors.

RESULTS

There were 855 mothers and children included in the analysis. Mothers or primary female caregivers ranged in age from 17 to 79 years. The majority of caregivers were biological mothers (72%), African American (66%), single (68%), unemployed (61%), had completed high school (62%), and received AFDC (54%) (see Table 1). In addition, 57% of children had at least one maltreatment report, substantiated or not, to CPS by the time of the interview. Although we had the dates of these reports, we did not have information on the period(s) when the father or father figure was involved in the child's life, thus precluding an ability to link father involvement with maltreatment.

Of the 855 children included in this study, 178 children did not report having a supportive adult male in their lives. Children ($n = 677$) described the relationship with the male support figures as follows: 75% (507) fathers, 2% (13) stepfathers, 3% (23) foster fathers, 5% (34) grandfathers, 1% (7) mothers' boyfriends, 3% (17) brothers, 8% (53) other male relatives, and 3% (23) adult male friends (see Table 1). Of note, we cannot be certain that the children were correct in describing the relationships. In particular, a child may have perceived a long-term father figure to be the biological father.

The MANCOVA model that was conducted to investigate differences in child functioning by presence or absence of a father figure was significant ($F = 5.76, p < .001$), with significant univariate differences found for cognitive development ($F = 18.38, p < .001$) and overall perception of competence ($F = 8.42, p <$

TABLE 1: Percentages, Means, and Standard Deviations of Demographic Characteristics of the Entire Sample ($N = 855$)

Site (%)	
Eastern	29
Southeastern	25
Southwestern	21
Northwestern	19
Midwestern	6
Maternal characteristics	
Education (years): <i>M (SD)</i>	11.7 (2.1)
Age (years): <i>M (SD)</i>	34.7 (11.3)
Married (%)	32
Employed (full- or part-time) (%)	39
Receiving AFDC (%)	54
Father figure ($n = 677$) (%)	
"Father"	75
Grandfather	5
Stepfather	2
Foster father	3
Mother's boyfriend	1
Other male relative	8
Adult male friend	3
Brother	3
Child characteristics	
African American (%)	66
Caucasian (%)	34
Male (%)	49
Maltreated (%)	57
Age (years): <i>M (SD)</i>	6.4 (0.5)
Perception of father's support: <i>M (SD)</i>	9.26 (3.12)

NOTE: AFDC = Aid to Families With Dependent Children.
a. Numbers represent means (standard deviations in parentheses).

TABLE 2: Adjusted Means and Standard Deviations on Measures of Children's Functioning by Presence of a Father Figure

	Father Figure ($n = 677$)		No Father Figure ($n = 178$)	
	M	SD	M	SD
Externalizing problem behaviors**	55.1	10.7	56.8	11.2
Internalizing problem behaviors	50.5	9.8	51.4	9.5
Perceived competence****	13.5	1.8	13.1	2.1
Cognitive development [§]	92.0	12.0	87.9	10.6
Depressive symptoms*	2.2	3.1	2.7	2.9

* $p = .10$. ** $p = .061$. **** $p < .01$. [§] $p < .001$.

.01) (see Table 2). The effect sizes were modest to moderate (approximate $SD .25$ to $.35$). Children who identified a father figure playing a supportive role in their lives had higher cognitive scores and better-perceived competence and social acceptance than children who did not identify a father figure.

The multiple regressions were limited to children who identified a father figure ($n = 677$). We examined the associations between the father figure's supportiveness and child functioning and whether these associations differed by the child's gender, race, or relationship to the father figure. After controlling for site, receipt of AFDC, and maternal education, we found direct associations between greater father figure support and two measures of children's functioning. Children who reported more support had a stronger perception of competence and social acceptance ($\beta = .245, p < .001$) and fewer depressive symptoms ($\beta = -.122, p < .01$). There was a trend with support somewhat associated with fewer internalizing problem behaviors ($\beta = -.063, p = .09$). The other two measures of children's functioning (externalizing problem behaviors and cognitive development) were not related to father figure support ($\beta = -.049$ and $.008$, respectively, $p = ns$) (see Table 3). The associations did not differ by children's gender or race or by the relationship of the child to the father figure. Because there were no significant interactions of child's gender, race, or relationship to the father figure, results shown in Table 3 display the most parsimonious models. There were, however, direct associations between race and children's functioning. African American children had a stronger sense of competence and social acceptance ($\beta = .157, p < .001$) but lower scores on cognitive development ($\beta = -.286, p < .001$) compared to White children. In addition, children who identified the father figure as being their biological father had fewer externalizing behavior problems than those who identified another supportive adult male ($\beta = -.078, p < .05$).

DISCUSSION

Most (79%) of the 6-year-olds in these high-risk families in five different states identified at least one father figure whom they perceived as supportive; most (75%) of these men were reported by the children to be their fathers. These findings are consistent with another study of families receiving AFDC, which found considerable father-child contact (Perloff & Buckner, 1996). As expected, the relationships in the present study included biological fathers, other relatives, mothers' boyfriends, and foster fathers. It is encouraging that a relatively high proportion of the children identified a father figure and that they perceived considerable support from him. Recognizing the many permutations of family and including a broad view of father, these findings partly counter the frequent stereotype of "absent fathers" in low-income and minority families (Blankenhorn, 1995). The

many permutations of family also call for rethinking the traditional view of father.

The first question concerning the influence of father figures' presence on children's functioning found that children who had a father figure had better cognitive performance and greater perceived competence and social acceptance. This finding, which differs from many earlier findings, may be partially explained by the large sample size, high-risk nature of the sample, and young age of the participants. The nature of father-child relationships in high-risk families may differ from those in more middle-class samples. Another difference concerns the relatively young age of the children; clearly, the influence of fathers may differ according to children's age and developmental level. The findings do, however, support some of the previous research that reported enhanced development in preschoolers and school-age children when fathers were present (Amato, 1994; Pleck, 1997; Radin, 1994). For example, Gottfried, Gottfried, and Bathurst (1988) found significant relationships between father presence and Wechsler Intelligence Scale for Children IQ, academic achievement, and social maturity at ages 6 and 7. A study based on the National Longitudinal Study of Youth reported that children in two-parent families had fewer behavior problems and superior scores in reading and mathematics compared to children in one-parent families (Teachman, Day, Paasch, Carver, & Call, 1998). There are many plausible mechanisms that could explain these relationships, including direct support of the child, emotional support to the mother, and material support to the family.

Next, we hypothesized that greater father figure support would be associated with better child functioning. In the subgroup of children who identified a father figure, their description of him as being supportive was significantly associated with greater perceived competence and social acceptance and fewer depressive symptoms. These findings are consistent with those of other researchers. Another study of low-income families found a modest benefit of contact with fathers reflected in children's behavior (Perloff & Buckner, 1996). Given the history of maltreatment and difficult situations of many of the children in the study, support from these father figures may have been particularly helpful in buffering the stresses in their lives. The degree of the father figure's support was not, however, associated with cognitive scores or externalizing behavior problems. A recent meta-analysis of 63 studies of nonresident fathers and children's well-being found that feelings of closeness and authoritative parenting were associated with aca-

TABLE 3: Standardized Betas After Controlling for Site, Maternal Education, and AFDC, Investigating Child's View of Father Figure's Support and Child's Functioning (n = 677)

	<i>Externalizing Problem Behaviors</i>	<i>Internalizing Problem Behaviors</i>	<i>Depressive Symptoms^a</i>	<i>Perceived Competence</i>	<i>Cognitive Development</i>
Child's view of father figure support	-.049	-.063	-.122****	.245 [§]	.008
Race	-.052	-.086		.157 [§]	-.286 [§]
Relationship to child	-.078****	-.070		-.049	-.014
Child's gender	.050	.003		.044	.020
<i>F</i>	3.32 [§]	2.71****	2.06***	12.70 [§]	13.10 [§]
<i>R</i> ²	.048	.039	.021	.161	.166

NOTE: AFDC = Aid to Families With Dependent Children.

a. Model involving race, relationship, and gender was nonsignificant; therefore, only the most parsimonious model is shown.

*** $p < .05$. **** $p < .01$. [§] $p < .001$.

demic success and fewer internalizing and externalizing behavior problems.

Finally, we examined possible moderating influences of the child's relationship to the father figure and the child's gender and race. The lack of any moderating influence of the type of relationship between the father figure and the child is not surprising given the mixed results of other research on this topic. Similarly, there was no significant influence of the child's gender, consistent with other findings pertaining to young children. Finally, race did not moderate the association between support from father figures and children's functioning, consistent with the literature reviewed by Pleck (1997), although those studies were limited to the involvement of biological fathers. The lower scores on cognitive development of African American children in this study are probably related to lower socioeconomic status and its attendant disadvantages (Parker, Greer, & Zuckerman, 1998).

The approach in this article of using children's perceptions of supportive adult males in their lives appears promising for future research. However, there are many critical roles that father figures may play that may not be recognized by children. Providing regular financial support; providing emotional support to the mother; planning for the future; and making decisions regarding health care, child care, and school are all roles that a child may not "see." Ideally, a comprehensive picture of father figure support would be based on information from him, the child's mother (or female caregiver), and the child. Mothers were asked about fathers' support, but this did not necessarily concern the same man the child identified as father or father figure.

In summary, this study is unique because it contributes to our knowledge of children's relationships with their father figures by questioning children directly. The high-risk characteristics and young age of the

participants are other important features of the study. Their identification of a father figure was associated with children's stronger perception of competence and feeling accepted and showing higher levels of cognitive development, compared to those who did not identify a father figure. Children's perceptions of the father figure as supportive were associated with two measures of their functioning: enhanced perception of competence and fewer depressive symptoms. These associations did not differ according to the man's relationship to the child and the child's gender or race. Overall, there is a pattern of children's benefiting from positive relationships with their father figures, adding support to other research to date.

Study Limitations

When the 6-year-olds described particular males as their fathers, it is possible that these men were not their biological or adoptive fathers. Indeed, if this was a long-term relationship, it is conceivable that children could have misperceived the men to be the fathers. This possible confusion limits our ability to draw any definitive conclusions from the analyses regarding the nature of the relationship of the man (father versus father figure) to the child. A related issue concerns the definition of father figure; it is possible that some of the other males were simply supportive adult males, not playing more substantial father figure roles. This question appears difficult to resolve based on the information collected from the children. Future research might include parental or adult information to clarify this role.

Another limitation is the brief assessment of the child's perceptions of his or her relationship with the father figure. However, the correlations among the four items were moderately high, and there was adequate internal consistency for the composite index of the father figure's support of the child. A more

detailed measure assessing children's perceptions of father figures' support and these relationships may help identify other important associations with children's functioning.

A third limitation is the difficulty in discerning cause and effect in cross-sectional data. It is possible that children who were functioning better were apt to describe their father figures more positively. A fourth limitation is that father figures' supportiveness may be confounded with socioeconomic status and other psychosocial factors that were not taken into account. A fifth limitation is that 57% of the children had been maltreated, and Vondra, Barnett, and Cicchetti (1989, 1990) found that young, maltreated, school-age children tended to inflate their self-reports of perceived competence. Finally, the effect sizes were relatively small; their clinical significance should be examined in future research. Despite the above limitations, the current study does suggest an association between father figures' presence and support and children's functioning.

Conclusions

This study supports a substantial body of research suggesting that the presence and involvement of a father figure benefits children, although the effect sizes were modest. This appears true in a somewhat diverse group of high-risk families. Furthermore, greater support provided by the father figure is associated with better child functioning on a number of dimensions. It is particularly interesting that the supportiveness of the father figure was based on the child's perception. There were no significant influences of the father figure's relationship to the child, the child's race/ethnicity, or the child's gender on the associations between father figures' level of support and children's functioning. Priorities for further research include clarifying what specific behaviors characterize supportiveness, examining what motivates fathers and father figures to be supportive or not, and demonstrating efforts to encourage the positive involvement of these men in children's lives. A priority for clinicians is to seek ways to encourage the positive involvement and supportiveness of father figures in children's lives, especially in high-risk families.

APPENDIX

Inventory of Supportive Figures

If the child identified a helpful adult male, she or he was asked,

I want to ask you about the kinds of help that _____ may have given you. You tell me if she's or he's done this—a lot, some, a little, or not at all.

- a. Shown you that she or he cares about you and about what happens to you?
- b. Explained things to you, told you things you need to know, or helped you solve a problem?
- c. Spent time with you?
- d. Helped you get food, clothes, and other things you need?

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Male Roles in Families “at Risk”: The Ecology of Child Maltreatment

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Research on child development has increasingly emphasized the complexity of developmental processes, and this reconceptualization is reflected in recent research on the effects of child maltreatment as well. The articles in this special issue illustrate the value of studying maltreatment in the context of children’s relationships, not only with their biological mothers, but with biological fathers and father figures as well. Ambiguities remain, however, suggesting that we need to know much more about the quality and longevity of the relationships between these men and both their partners and surrogate children to understand their roles and impact more fully.

Our understanding of the antecedents, correlates, and effects of child maltreatment has become increasingly sophisticated in the four decades since “the battered child” was first described in the scholarly literature (Kempe, Silverman, Steele, Droegemuller, & Silver, 1962). Furthermore, over roughly the same period, developmentalists have come to a clearer understanding of the complex web of forces that shape individual development over time (Dixon & Lerner, 1999). In both domains, the ecological and contextual perspectives on development most eloquently articulated by Urie Bronfenbrenner (1979; Bronfenbrenner & Morris, 1998) and Richard Lerner (1996), respectively, have led scholars to recognize that development is an ongoing process and that individuals are shaped and reshaped by their experiences (including experiences of maltreatment), not only in infancy and early childhood, as neoanalysts once argued, but also in later childhood, adolescence, and

adulthood (Dixon & Lerner, 1999; Lamb, Hwang, Ketterlinus, & Fracasso, 1999).

Informed by these perspectives and the research they have spawned, professionals agree that the effects of maltreatment are likely to vary depending on the age and temperament of the victim; his or her relationship with the abuser; the type, seriousness, and chronicity of the abuse; and the availability of other supportive relationships and resources (National Research Council, 1993). Meanwhile, students of normative developmental processes have shifted focus from critical experiences, phases, and relationships to continuing transactional processes (Sameroff, 1994). As part of this reconceptualization, they have broadened their focus from a narrow concern with mother-child relationships, first to a recognition of other significant relationships and then to a perspective on systems of mutually regulating relationships (Lamb et al., 1999; Parke & Buriel, 1998). The “discovery” of father-child relationships is one consequence of this changing view of early social development.

Over the past three decades, in fact, behavioral scientists have made considerable efforts to understand the role of the father in child development (Lamb, 1997). Whereas researchers initially focused rather narrowly on the effects of father absence, many subsequently emphasized the diverse ways in which fathers define and fulfill their roles in different cultural circumstances, while other scholars sought to discern changes over time in the ways in which fathers behave (Marsiglio, Amato, Day, & Lamb, 2000). Unfortunately, with the exception of large-scale studies on the effects of father absence, most of the richly descriptive studies have examined paternal roles in quite advanced

taged, primarily Euro-American families, with little attention paid to paternal roles in less advantaged families (Marsiglio et al., 2000). Only recently, in fact, have researchers and scholars made broad-based and concerted efforts to examine the nature of fatherhood in disadvantaged families and families at risk, despite speculation for many years that various forms of paternal absence might have especially harmful consequences for children in impoverished households.

Although the causal mechanisms are complex, it appears clear that children in two-parent families perform better in school, have superior peer relationships, and have fewer behavioral and psychosocial problems than children in single-parent families. The pattern of results does not appear to vary depending on socioeconomic status or ethnic background. Among children in single-parent families, however, children do better (broadly speaking) when their nonresidential fathers are more actively involved on a regular basis than when father-child relations are absent or superficial (Amato & Gilbreth, 1999). Among children in two-parent families, meanwhile, active paternal involvement is likewise associated with better child adjustment and performance than is the lack of paternal involvement. Overall, children appear to be better adjusted and to perform better in school when they have positive relationships with two actively involved parents.

Despite the large numbers of studies documenting the adverse effects of marital conflict and child abuse on child adjustment and performance (Kelly, 2000; National Research Council, 1993), surprisingly few efforts have been made to study the role of fathers in violent families (Sternberg, 1997). All forms of family violence, including spouse abuse and child abuse, are associated with poorer child adjustment and performance, of course. Furthermore, when partners are present and are violent with one another, children are at increased risk of being victimized as well, although many (60%) of the children whose parents are violent with one another are not physically abused (Appel & Holden, 1998). Beyond this, the roles and influences of men in violent families have received little attention from researchers. In this context, therefore, the three articles in this special issue make important contributions to our understanding of the roles played by fathers and father figures in the lives of children at increased risk of child maltreatment. While delineating the possible benefits that accrue to children when father figures are present, these studies also begin to examine possible differences in the impact and roles of biological fathers as opposed to unrelated father surrogates.

Research on the role of fathers in families at high risk for family violence has been slowed by a number of factors, including lack of access to the men themselves. Particularly until the welfare reforms of 1996, impoverished mothers risked losing their welfare benefits if they resided with male partners, and thus their relationships and living arrangements were often unclear, even making it difficult to determine whether male figures resided with the children. In addition, both researchers and agency personnel tended to base their assessments of child adjustment and performance on maternal reports, without benefit of alternative perspectives. Two of the studies included in this special section are noteworthy in this regard because data were obtained by directly assessing the children or by relying on information obtained from their teachers rather than from their mothers. Researchers (e.g., Sternberg et al., 1993) have shown that mothers' reports of their children's psychosocial and behavioral problems are often colored by their own experiences (e.g., as victims of domestic violence) and that it is, in any event, always valuable to obtain information from multiple informants who can appraise the children's behavior in multiple contexts (e.g., school, the peer group, the family) when evaluating the effects of child maltreatment.

In one of the studies included in this special section, Aruna Radhakrishna and her colleagues asked whether the likelihood or risk that a child would be identified to authorities as a victim of child maltreatment in his or her first 8 years of life varied as a function of the presence or absence of male adults in the child's home. The study is important because these researchers distinguished between nonrelated "father surrogates" and biological fathers and were able to demonstrate that the risks of reported maltreatment in the two types of households are remarkably different. Specifically, children living with their biological fathers were more than 2.5 times less likely to be reported than children living with unrelated father surrogates. Children who had no father figure in the home were also half as likely as those with father surrogates to be reported, suggesting that the presence of an unrelated male in the home was a source of risk rather than that the presence of a biological father diminished the risk of reported maltreatment.

The other two articles in this special section focused not on reported maltreatment but on child behavior and adjustment. In both cases, it is interesting that the children's adjustment did not vary depending on the type of father-child relationship; rather, indices of relationship quality appeared to be more important. In an analysis of data obtained in sev-

eral sites, for example, Howard Dubowitz and his colleagues reported that 6-year-old children felt better accepted socially, had more positive views of their competence, and had superior cognitive skills when father figures were present, regardless of the degree of biological relatedness. Among those children who had father figures, increased levels of perceived paternal support were associated with more desirable self-perceptions and fewer symptoms of depression; again, the associations were no different whether the men and children were biologically related to one another or not.

In the third article, David Marshall and his colleagues examined a sample of families that were not simply "at risk" (as in Dubowitz et al.'s study) but had already been reported to child protective services (CPS), and as a result, the sample size (182) was substantially smaller than in Dubowitz et al.'s report (855 children in five sites). (Marshall et al. also excluded from consideration 16 families in which the biological fathers were the primary care providers.) The mothers in Marshall et al.'s sample reported quite high levels of supportive male involvement, but variations in reported supportiveness were not associated with variations in the children's behavior problems as reported by the teachers. Six-year-old children in Marshall et al.'s study were perceived by their teachers as less aggressive and less depressed when they lived with their fathers or father surrogates, however, whereas Dubowitz et al. reported no significant associations between living arrangements and maternal reports of behavior problems. Interestingly, these associations reported by Marshall et al. were eliminated when the authors controlled statistically for mothers' ethnicity, child gender, number of referrals to CPS, and the presence of spousal violence, suggesting that the children's behavior problems had multiple nonindependent sources. The absence of male figures was associated with elevated levels of aggression and reduced levels of depression in African American families, however, even when these other sources of influence were taken into account.

Taken together, the results of these studies confirm that on average, children benefit psychosocially when they live in two-parent rather than single-parent families and that those in two-parent families are better adjusted than their peers when they believe that they have positive or supportive relationships with their fathers or father figures. Similar associations are evident in families that are not at risk (Amato & Gilbreth, 1999; Lamb, in press). On the other hand, the studies reported here show that the presence of nonrelated father surrogates is not necessarily beneficial to children and may place them at increased risk

of maltreatment. Clearly, we need to know much more about the quality and longevity of the relationships between these men and both their partners and surrogate children to understand their roles and impact more fully. At minimum, the presence of an unrelated adult male suggests at least some instability and previous partner conflict—both conditions that place children at some psychosocial risk. At present, however, we know too little about the ontogeny, quality, and characteristics of the relationships between children and surrogate parents as well as about the range of variations along these dimensions to say much about their possible impact on child development. There is a clear need for more research on this topic, particularly in light of demographic trends suggesting that an increasing number of children spend at least part of their childhood with unrelated surrogate parents. We can probably assume that children may be affected by the quality of the bonds they establish, by the disruption of these bonds when adults (and their children) move out, by the levels of conflict and harmony between the adults, and by the level of material resources they provide. The studies in this special section underscore the value of exploring these issues more fully as we strive to understand both child maltreatment and the complex processes of socialization in diverse sociocultural contexts.

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Focus Section II: Nonoffending Mothers of Sexually Abused Children

Reactions of Nonoffending Parents to the Sexual Abuse of Their Child: A Review of the Literature

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The published literature regarding reactions of nonoffending parents to the sexual abuse of their child is reviewed. Research suggests that mothers generally believe their children's allegations, either totally or in part. Although the majority of mothers are supportive/protective, a substantial number are not. Even mothers who are generally supportive and protective often exhibit inconsistent and ambivalent responses. Studies examining factors that predict parental belief, support, and protection have failed to yield consistent results. Few studies have examined nonoffending fathers' reactions following disclosure. Both nonoffending mothers and fathers often experience significant distress following their children's allegations. Parental support is consistently associated with the adjustment of sexually abused children. Few studies have examined interventions targeting nonoffending parents, although two series of well-designed studies suggest that cognitive-behavioral treatment that combines parent and child interventions may lead to better adjustment in both the child and the parent. Implications for mental health professionals are provided.

Approximately 20% of females and 5% to 10% of males experience some form of sexual abuse during childhood (Finkelhor, 1994). These children may experience a wide variety of both short- and long-term psychological difficulties (e.g., Beitchman et al., 1992; Beitchman, Zucker, Hood, DaCosta, & Akman, 1991;

Kendall-Tackett, Williams, & Finkelhor, 1993; Neumann, Houskamp, Pollock, & Briere, 1996). In the past 15 years, both clinicians and researchers have begun to examine a variety of questions regarding the manner in which nonoffending parents respond to the sexual victimization of their children.

The purpose of this article is to review the published empirical literature that addresses the following questions. First, do parents believe their child's allegation of sexual abuse? Second, do parents respond in a supportive/protective manner following the child's disclosure? Third, what factors predict parental belief, support, and protection following the allegation? Fourth, do parents experience significant distress following the abuse? Fifth, is parental support/protection associated with children's emotional and behavioral adjustment? Finally, does providing parents with support lead to better adjustment in sexually abused children?

Belief and Supportiveness of Nonoffending Caregivers

Learning about the sexual victimization of one's child is generally an unexpected and confusing event. When nonoffending caregivers first learn about the abuse, their reactions vary considerably. Many experience a sense of disbelief and denial, much like that of a parent who learns that his or her child has tragically died (e.g., Myer, 1985). However, the issues involved

in the sexual victimization of one's child may be more complex than those associated with the death of a child. First, because alleged perpetrators generally deny the abuse and there is rarely physical or medical evidence (Jenny, 1996) or eyewitness testimony, a parent's belief that the abuse occurred often rests on the word of the child versus the word of the perpetrator. Second, because most sexual abuse is perpetrated by someone known to the child (e.g., Berliner & Elliott, 1996), it may be difficult for the nonoffending caregiver to comprehend that someone they know, and perhaps trust, could commit such an act. Thus, when abuse is first disclosed, it is not surprising that there is considerable variability in the extent to which parents believe, support, and protect their children. In addition, because false reports can occur, some degree of uncertainty regarding an allegation that has not yet been investigated, let alone substantiated, may not be unreasonable.

Methodological Difficulties Associated With Evaluating Nonoffending Parents

Given that levels of belief, support, and protection are highly interrelated and complex constructs, it is difficult to empirically evaluate such reactions in nonoffending caregivers. Although the present article does not provide an exhaustive review of methodological issues associated with studying these variables, several key difficulties are highlighted.

Belief, support, and protection are overlapping constructs that are difficult to separate. For example, when first learning about an alleged incident of abuse, an enraged caregiver may threaten to injure the perpetrator. Although this response indicates belief in the child's allegation, the child may perceive this high level of emotionality as nonsupportive if it does not meet his or her current psychological needs. Clearly, a response that is perceived as supportive or protective to one person may not appear so to another. Furthermore, even a parent who believes the child may have difficulty providing support or protection for a variety of reasons including fear of, or financial dependence on, the perpetrator. Although maternal supportiveness and protection are not synonymous constructs, only a few studies have separately examined these factors or provided specific criteria for assessing them (e.g., Everson, Hunter, Runyon, Edelsohn, & Coulter, 1989; Heriot, 1996). Therefore, these two constructs will be discussed together in subsequent sections of the article.

A second methodological difficulty associated with studying levels of belief and support/protection in nonoffending parents is that they are not static constructs. A nonoffending caregiver's thoughts, emo-

tions, and reactions may vary across time and situations. In the midst of a developing awareness of what occurred and conflicting accounts of the alleged incident, caregivers may simultaneously and/or sequentially experience a wide variety of reactions. For example, although a mother may believe her child's allegation, she may also have difficulty believing that her husband could sexually abuse their child. In addition, a caregiver's responses may be supportive toward the child in some ways (e.g., providing for physical and safety needs) but generally unsupportive in other ways (e.g., withholding emotional support pertaining to the allegations). Evidence also suggests that initial reactions may not predict a parent's ability to believe, support, and protect his or her child at some point in the future (e.g., Salt, Myer, Coleman, & Sauzier, 1990). Given this variability of responding, caregivers' reactions should be evaluated at several points across time.

A third methodological difficulty concerns the fact that both belief and support/protection have been measured and evaluated in a variety of ways. For example, they have been measured (a) using different samples (e.g., intrafamilial vs. extrafamilial, intact vs. nonintact families, boys vs. girls, those in treatment vs. those not in treatment); (b) from different persons' perspectives (e.g., the child's, the caregiver's, or a mental health professional's); (c) through different modes of questioning (e.g., questionnaires, interviews, case record abstraction); (d) at different points in time following disclosure (within the 1st hour, within 1 month, retrospectively years afterward); (e) using different definitions of what constitutes supportive or protective behavior (e.g., not blaming the child, contacting law enforcement, removing the offender from the home, demonstrating disapproval of perpetrator's abusive behavior); (f) without providing specific criteria for how to assess or categorize levels of belief, support, or protectiveness; and (g) by conceptualizing them as both dichotomous and continuous variables. Although each of these methodological approaches has its advantages and disadvantages, such variability across studies makes it difficult to draw broad conclusions regarding reactions of non-offending parents to the sexual victimization of their children.

A fourth methodological difficulty stems from the fact that estimates regarding the percentage of caregivers who believe and support their children's allegations and protect them from further abuse are based on studies involving voluntary participants only (e.g., Deblinger, Hathaway, Lippmann, & Steer, 1993; Pellegrin & Wagner, 1990). It is quite possible that caregivers who participate in research are qualita-

tively different from those who refuse. Thus, estimates based on studies involving voluntary participants may represent an overestimation of the actual percentage of parents who believe, support, and protect their children following a disclosure of sexual abuse.

Finally, estimates concerning the frequency with which nonoffending parents believe their children's disclosure and respond in a supportive/protective manner may vary across studies due to a variety of moderating factors such as the mother's relationship with the offender, maternal history of abuse, the age of the child, and the sex of the child. Such variables make it difficult to draw firm conclusions regarding the percentage of parents who believe, support, and protect their sexually abused children. Despite these methodological difficulties, however, several trends in the literature have begun to emerge and are discussed below.

DO PARENTS BELIEVE THEIR CHILD'S ALLEGATION OF SEXUAL ABUSE?

Early accounts in the literature (e.g., Herman, 1981; Summit, 1983) suggested that a substantial portion of nonoffending mothers disbelieved their children's allegations of incestual abuse and responded with rejection or blame. Mothers were often described as "collusive" and either directly or indirectly involved in the abuse (e.g., Crawford, 1999; Joyce, 1997). According to Tamraz (1996), however, much of this literature was based on theory and opinion rather than on research. Contrary to such early reports, data suggest that the majority of nonoffending mothers believe their children's allegations regardless of whether the abuse was intrafamilial or extrafamilial. deYoung (1994) reported that 65% of mothers believed their children even within the 1st hour after disclosure. Nine studies (i.e., De Jong, 1988; Elliott & Briere, 1994; Heriot, 1996; Jinich & Litrownik, 1999; Leifer, Shapiro, & Kassem, 1993; Lovett, 1995; Lyon & Kouloumpos-Lenares, 1987; Pellegrin & Wagner, 1990; Sirls & Franke, 1989) reported that between 69% and 78% of nonoffending mothers believed their children either completely or in part. Several studies (e.g., Deblinger et al., 1993; Elbow & Mayfield, 1991; Pierce & Pierce, 1985; Stauffer & Deblinger, 1996) reported even higher rates with 83% to 84% believing at least some aspect of their children's allegations.

Several studies (Heriot, 1996; Lyon & Kouloumpos-Lenares, 1987; Pintello & Zuravin, 2001) have documented an association between maternal belief and maternal support or protectiveness. Pintello and Zuravin (2001) directly examined characteristics that

predict concordance for belief and protection in nonoffending mothers in cases of intrafamilial child sexual abuse (CSA). When examined separately, a variety of maternal, child, and situational variables predicted concordance between maternal belief and protective action. However, only four of these variables remained significant as overall predictors in the final logistic regression model. Specifically, mothers were more likely to be concordant for belief and protective action when (a) they were not a current sexual partner of the offender, (b) they postponed giving birth to their first child until reaching adulthood, (c) they did not have knowledge of the sexual abuse prior to the child's disclosure, and (d) the child victim did not exhibit sexualized behaviors. More than 41% of the mothers in their sample both believed and took protective action, 30.8% neither believed nor took protective action, and 27.3% responded ambivalently (i.e., believing yet not taking protective action or not believing but taking protective action). Finally, results from a study by Heriot (1996) also indicated that belief is a strong predictor of maternal protectiveness following the disclosure of abuse. However, given that almost 20% of the mothers who believed their children's allegations failed to take protective actions, Heriot noted that belief does not necessarily ensure support or protection, especially if the perpetrator is the mother's partner. It is also noteworthy, however, that of the mothers who exhibited ambivalent feelings toward the perpetrator, 52% nonetheless took actions to protect their children.

Summary

At this point in time, best estimates suggest that the majority of nonoffending mothers believe their children's allegations, either totally or in part, regardless of whether the alleged abuse was intrafamilial or extrafamilial. However, evidence suggests that (a) not all mothers believe the allegation, (b) maternal belief does not necessarily ensure supportive or protective responses, and (c) many mothers who exhibit ambivalent responses are nonetheless able to take actions to protect their children. Unfortunately, we were unable to identify any studies reporting the percentage of nonoffending fathers who believed their children's allegations of sexual abuse.

DO PARENTS RESPOND IN A SUPPORTIVE/PROTECTIVE MANNER FOLLOWING THEIR CHILD'S DISCLOSURE OF SEXUAL ABUSE?

Estimates regarding the level of support/protection provided by nonoffending caregivers have varied considerably across studies. Several researchers have

focused exclusively on levels of maternal support/protection in incestuous cases of abuse. deYoung (1994) classified mothers' responses within the 1st hour of disclosure and found that 60% provided some level of support/protection. Myer (1985) reported that 56% of mothers protected their children, though some were described as ambivalent. A study by Everson et al. (1989) was one of the first to utilize specific criteria for assessing maternal protectiveness. Using the Parental Reaction to Incest Disclosure Scale (PRIDS), which categorized parental support in three areas (i.e., emotional support, belief of child, and action toward perpetrator), they evaluated mothers within the first 2 weeks following disclosure and reported that 76% provided some type of support, either consistently (44%) or a mixture of ambivalent or inconsistent support (32%). In Heriot's (1996) study, which separately examined maternal support and protectiveness, 68% of mothers were rated by caseworkers as being supportive. Of those mothers for whom data regarding protectiveness were available, 66% took protective action and 61% were consistently protective. Pintello and Zuravin (2001) reported that whereas 41.8% of mothers both believed and protected, an additional 14% took protective action even though they did not believe the children. Finally, using the Parental Reaction to Abuse Disclosure Scale (a modified version of the PRIDS), Leifer, Kilbane, and Grossman (2001) reported that 61.6% of nonoffending African American mothers were supportive, whereas 38% were nonsupportive.

Other studies have reported the overall percentage of support/protection provided by nonoffending mothers without drawing a distinction between intrafamilial and extrafamilial abuse. The lowest estimate comes from an early study by Adams-Tucker (1982), which reported that only 27% of sexually abused children had an adult (usually a mother) who could be described as very supportive. Lyon and Kouloumpos-Lenares (1987) reported that close to half of the mothers in their sample provided children with active support, whereas another 26% provided protection but demonstrated some form of ambivalence (e.g., denying that the child needed treatment or support). Leifer et al. (1993) reported that 58% of mothers took action to protect, although only 49% were labeled "supportive" because some demonstrated significant ambivalence, vacillation, or blame toward the child. Salt et al. (1990) reported that 82% of nonoffending mothers took some form of action to protect either consistently (44%) or partially (38%). Finally, De Jong (1988) reported that 69% of mothers were supportive of their children.

A study by Stroud (1999) examined the level of support provided by fathers, brothers, and sisters, in addition to mothers. College students' perceptions of the support they received as children were assessed while taking into account their relationships with the perpetrators. Using a novel classification scheme, Stroud compared extrafamilial abuse victims with two types of incest victims, those who were biologically related and those who were socially related as the result of family social alliances (e.g., a stepfather). Results indicated that victims of extrafamilial abuse received consistently more support from family members than did victims of intrafamilial abuse. In addition, although the victim's relationship with the abuser did not affect the perceived level of support from the sister or mother, both fathers and brothers were perceived as less supportive when the victim was biologically related to the abuser.

Summary

Several findings from these studies are particularly noteworthy. First, although the majority of mothers of both incest and nonincest victims are supportive/protective, a substantial number are not. Second, even when mothers are supportive and protective of their children, they may exhibit both inconsistency and ambivalence in their responses. Third, studies regarding the extent to which fathers provide support and protection are lacking. Finally, as will be discussed in the next section, levels of parental support and protection are associated with a variety of maternal and abuse-related factors.

WHAT FACTORS PREDICT PARENTAL BELIEF, SUPPORT, AND PROTECTION FOLLOWING A DISCLOSURE OF SEXUAL ABUSE?

A review of the empirical literature suggests that maternal belief, support, and protection are associated with a variety of abuse-specific and non-abuse-specific factors. Although numerous variables have been studied as possible predictors of maternal support, the four that appear to have received the most empirical examination include the mother's relationship with the perpetrator, the mother's own history of childhood abuse, the victim's age, and the victim's gender.

Mother's Relationship With the Perpetrator as a Predictor of Maternal Belief

The literature concerning whether a mother's belief in her child's allegation is associated with her relationship with the perpetrator is highly inconsistent. Several studies (e.g., Deblinger et al., 1993; De

Jong, 1988; deYoung, 1994) have reported that mothers of incest victims were just as likely to believe their children's disclosure as were mothers of nonincest victims. Other studies have reported significant correlations between maternal belief and the mother's relationship with the perpetrator, although the patterns of results have conflicted. For example, Sirles and Franke (1989) reported that mothers were more likely to believe their children's allegations when they involved a biological father (85.9%) or other extended family member (92.3%) than when they involved a stepfather or live-in partner (55.6%). Lyon and Kouloumpos-Lenares (1987), on the other hand, found that mothers were more likely to believe their children when the perpetrator was not a family member (94%) than when he was (69%).

Mother's Relationship With the Perpetrator as a Predictor of Maternal Support/Protection

Studies assessing whether levels of support/protection are predicted by a mother's relationship with the offender have also yielded conflicting results. Studies generally (e.g., Everson et al., 1989; Faller, 1988; Pintello & Zuravin, 2001) suggest that nonoffending mothers are less supportive and protective of the child when the offender is a current partner of the mother. Similarly, some evidence suggests that the mother may be less protective of the child when her relationship with the offender is more dependent or intimate. For example, Heriot (1996) reported that when the perpetrator was the mother's husband or live-in boyfriend, she was less likely to physically separate from him than when the perpetrator was another family member. Salt et al. (1990) reported that mothers were less protective of the children when the perpetrator was the natural father, boyfriend, or stepfather than when he was another relative or outsider. Elliott and Briere (1994) also reported that when the alleged perpetrator lived with the mother, she was less likely to be supportive of her child. Leifer et al. (2001) reported that mothers were less likely to be supportive when they were financially dependent on the perpetrator and/or when he was living in the home. Similarly, an early study by Conte and Berliner (1981) reported that the nonoffending parent (or parenting figure) took immediate action to protect in 85% of extrafamilial cases but in only 60% of incest cases.

Despite these apparent trends, clear findings have not yet emerged concerning the impact of whether the perpetrator was a biological father, a stepfather, the mother's current marital partner, the mother's live-in partner, the mother's boyfriend, another non-father-figure relative, or an extrafamilial offender. For example, Everson et al. (1989) reported

that mothers were moderately supportive of their children when they were currently married to the perpetrator (regardless of whether the offender was the child's biological father or a stepfather) and least supportive when the perpetrator was a current boyfriend. Faller (1988), on the other hand, found that mothers were least protective if their children were abused by a biological father who was currently married to the mother and moderately protective if their children were abused by a stepfather or by the mother's live-in partner. Salt et al. (1990) reported that mothers were more angry and punitive toward the children when the abuser was a stepfather or the mother's boyfriend than when he was the natural father, although almost half (45%) of the incestuous cases involving the natural father in this study occurred in nonintact families. Finally, compounding the confusion on this issue, it is important to note that several studies failed to find a significant relationship between levels of support/protection and the mother's relationship with the perpetrator (e.g., Deblinger et al., 1993; DeJong, 1988; deYoung, 1994).

Numerous methodological differences between studies may account for the highly complex, and sometimes conflicting, results regarding a mother's relationship with the perpetrator as a predictor of maternal support/protection. In addition to the general methodological difficulties cited above, conflicting findings may be due to different conceptualizations of what constitutes support and protection. Conflicting results may also be due to different definitions regarding the mother's relationship with the offender used across studies. For example, some studies include sexual abuse by a stepfather as incestuous, whereas others categorize it as nonincestuous due to the nonblood relationship. The classification scheme by Stroud (1999), which separated biologically and socially related incestuous abuse, may help clarify such distinctions in future studies. In addition, many studies do not distinguish between intact and nonintact families. This distinction is important because mothers' reactions may differ depending on the extent to which they have an emotional commitment to, and/or economic dependence on, the offender. Furthermore, some studies utilize measures of perceived support obtained from the child, the parent, or a mental health worker, whereas other studies utilize behavioral indices of support. Finally, conflicting results across studies may be due to other methodological factors such as how the participants were recruited (community sample, clinical sample, court referred), types of abuse experienced by the child, age of the victim, and lack of standard assessment instruments.

Maternal History of Abuse as a Predictor of Parental Support/Protection

Although several studies have examined whether maternal responses to the sexual abuse of one's child are associated with a history of maternal childhood abuse, the majority have reported no relationship (e.g., Deblinger, Stauffer, & Landsberg, 1994; De Jong, 1988; Heriot, 1996; Hubbard, 1989; Leifer et al., 2001; Salt et al., 1990). Consistent with these findings, Leifer et al. (1993) found that mothers' history of sexual abuse was not a significant predictor of maternal support. However, the results did suggest that maternal substance abuse and social isolation were important mediating variables between maternal history of sexual abuse and the mother's response to her daughter. It is interesting that the only study that reported a significant relationship (Morrison & Clavenna-Valleroy, 1998) found that mothers with an abuse history were described by their daughters as more supportive than were mothers without an abuse history both at the time of discharge from a sexual trauma inpatient unit and also at the 3-month follow-up.

Victim's Age as a Predictor of Parental Support/Protection

Empirical studies examining the extent to which parental support varies as a function of the victim's age have also yielded inconsistent results. Although several studies have failed to find a significant relationship between parental response and the child's age (e.g., De Jong, 1988; Everson et al., 1989), data from several studies suggest that mothers are more likely to believe and support younger children. Sirles and Franke (1989) reported that the majority of mothers believed the allegation regardless of the child's age, although they were more likely to believe if the child was a preschooler (95%) than if he or she was latency age (82.4%) or a teenager (63.2%). Similarly, Lyon and Kouloumpos-Lenares (1987) reported that 89% of mothers of victims younger than 5 years believed their children's allegations compared to 43% who had children between the ages of 14 and 18. Heriot (1996) also reported that adolescents were at greatest risk for nonprotection from their mothers. Pintello and Zuravin (2001) reported that younger children were more likely to be believed and protected by their mothers than were older children, although age did not remain significant when other variables were entered into the logistic regression model described previously. Finally, Salt et al. (1990) reported that mothers expressed greater concern and protective behavior toward younger children and

were more likely to be angry and punitive with older children.

Victim's Gender as a Predictor of Parental Support/Protection

Studies examining the relationship between parental support and the child's gender have also yielded conflicting results. Several studies have found no relationship between maternal support and the child's gender (e.g., De Jong, 1988; Everson et al., 1989; Heriot, 1996). However, other studies have found mothers to be more protective (e.g., Salt et al., 1990), less punitive (e.g., Salt et al., 1990), and more likely to believe and help (Lyon & Kouloumpos-Lenares, 1987) sons than daughters. Pintello and Zuravin (2001) found that male sexual abuse victims were more than twice as likely to be believed and protected by their mothers than were female victims, although gender did not remain significant when other variables were entered into the logistic regression model. Stroud's (1999) retrospective study found that although the victim's gender did not predict perceived support from mothers or brothers, males perceived significantly less support from fathers and sisters. Future studies are needed to clarify the relationship between gender of the child and support received from mothers and from other family members.

Summary

Research concerning variables that affect parental levels of belief, support, and protection following a child's disclosure of sexual abuse is still in its infancy. Four of the most commonly studied variables were discussed above (mother's relationship to the perpetrator, maternal history of childhood abuse, age of the child, gender of the child), and all but maternal history of abuse yielded inconsistent results across studies. Future research is needed to clarify the effects of these variables and to identify and/or further examine other variables (e.g., perpetrator's denial or admission of guilt, circumstances surrounding the disclosure, seriousness of the abuse, suspicion of abuse prior to disclosure, knowledge of abuse prior to child protective services report, maternal substance abuse history, symptoms experienced by the child, attachment relationships with parents) that may affect the extent to which mothers, fathers, and other supportive figures believe, support, and protect alleged victims of CSA. Leifer et al.'s (2001) three-generational study involving both mothers and grandmothers of sexually abused children is unique and highlights the importance of examining the impact of intergenerational factors (e.g., co-residence with

grandmother) as predictors of maternal support as well. With few exceptions, data regarding factors that predict paternal support are lacking.

DO PARENTS EXPERIENCE SIGNIFICANT DISTRESS FOLLOWING THEIR CHILD'S DISCLOSURE OF ABUSE?

Given that sexual abuse of one's child is often a highly stressful and disruptive experience, it is not surprising that parents frequently experience significant distress following disclosure (e.g., Davies, 1995; Deblinger et al., 1993; Kelley, 1990). Although not all parents experience elevated levels of distress, many experience a variety of psychological symptoms. In past years, parental distress in response to the abuse of one's child was frequently overlooked (Famularo, Fenton, Kinscherff, Ayoub, & Barnum, 1994). However, considerable research on this topic has emerged during the past decade, as have many books in the popular and professional literature (e.g., Ashley, 1992; Byerly, 1985; Hagans & Case, 1988; Hillman & Solek-Tefft, 1988; Hooper, 1992; Levenson & Morin, 2000; Matsakis, 1991; Monahan, 1993; Myers, 1997; Schaefer, 1993; Strand, 2000).

Families frequently experience numerous stress-inducing changes following a child's disclosure of sexual abuse. In addition to symptoms of psychological distress experienced by nonoffending parents, a study by Massat and Lundy (1998) identified other "costs" associated with a disclosure of intrafamilial abuse. Specifically, nonoffending parents experienced losses or changes in income and in their relationships with family and friends, dependence on government programs, employment disruption, and change of residence.

Post-Traumatic Stress Disorder

One of the most common psychological symptoms observed in victims of CSA is post-traumatic stress disorder (PTSD) (e.g., Kendall-Tackett et al., 1993; McLeer, Deblinger, Atkins, Foa, & Ralphe, 1988; Wolfe, Gentile, & Wolfe, 1989). According to the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.) (American Psychiatric Association, 2000), PTSD can be precipitated by learning about, among other things, the violent personal assault of a family member or close friend. Both anecdotal reports (e.g., Green, Coupe, Fernandez, & Stevens, 1995) and empirical studies suggest that nonoffending parents of maltreated (Famularo et al., 1994) and sexually abused children (Kelley, 1990) experience symptoms of PTSD. Clinically elevated symptoms of PTSD have been observed in both mothers and fathers following disclosure of their children's abuse (Burgess,

Hartman, Kelley, Grant, & Gray, 1990; Davies, 1995; Kelley, 1990). In a study examining the initial effects of disclosure of extrafamilial abuse, Manion et al. (1996) reported that nonoffending mothers exhibited significantly higher intrusive and avoidant symptoms of PTSD than did nonoffending fathers. Kelley's (1990) study of parental reactions 2 years following the extrafamilial abuse of their children in a day care setting found that mothers scored significantly higher than did fathers on intrusive symptoms of PTSD only. It is unclear why Manion et al. found a significant gender difference for avoidant symptoms but Kelley did not. One possibility is that mothers' avoidant symptoms decreased over time. Finally, evidence suggests that symptoms of PTSD can persist for at least 2 years following disclosure (Kelley, 1990) and that parents whose children testify in court are especially at risk for developing intrusive and avoidant symptoms (Burgess et al., 1990).

Depression

Anecdotal reports suggest that the sexual abuse of one's child is associated with increased levels of depression, maternal hospitalizations (De Jong, 1986), and maternal suicide attempts (Goodwin, 1981). Empirical studies have generally confirmed the relationship between CSA and parental depression. Davies (1995) reported that 46% of mothers and 22% of fathers scored above the clinical cutoff score on the Center for Epidemiological Studies questionnaire. Lewin (2001) reported that mothers of sexually abused children exhibited heightened levels of depression compared to a matched control group. Kelley (1990) reported that nonoffending mothers and fathers experienced significantly higher levels of depression than did a nonclinical, nonabuse control group of parents. In addition, fathers experienced significantly higher levels of depression than did mothers. No significant differences in level of depression were reported in parents whose children had experienced nonritualistic versus ritualistic abuse (i.e., systematic and repetitive sexual, physical, and psychological abuse of children by adults engaged in cult worship). These studies suggest that parents of sexually abused children are more likely to experience depression than are parents of nonclinical, nonabused children. A study by Wagner (1991), however, found that rates of depression in mothers of sexually abused children did not differ significantly from rates in mothers of an outpatient sample of nonabused children.

General Symptom Distress

Empirical studies support the clinical impression that following disclosure, nonoffending parents often experience significant levels of general symptom distress on measures such as the Symptom Checklist-90-R (Derogatis, 1983) or the Brief Symptom Inventory (Derogatis & Spencer, 1982). Although not all parents of sexually abused children experience clinically elevated levels of distress (e.g., Manion et al., 1996), many mothers and fathers do. Both Deblinger et al. (1993) and Newberger, Gremy, Waternaux, and Newberger (1993) reported that nonoffending mothers exhibited significantly higher levels of general psychological distress than did a normative sample of mothers. Newberger et al. reported that at the time of the first interview, 55% of mothers scored within the clinical range. Deblinger et al. reported that the level of general distress was comparable to that of normative data for female psychiatric outpatients. Finally, in a study of treatment for both nonoffending mothers and their 2- to 6-year old children, Stauffer and Deblinger (1996) reported that even following treatment, distress was higher for nonoffending mothers than for normative nonpatient samples. However, it was substantially lower than it was for normative clinical samples.

Two studies examined general distress in parents 1 to 2 years following disclosure. Newberger et al. (1993) reported that although mean levels of general distress decreased significantly during the 12-month period following disclosure, many mothers still experienced clinically elevated symptoms. Anxiety was the only scale on which a significant decrease was not observed. Kelley (1990) reported that 52% of nonoffending parents experienced clinically elevated symptoms 2 years following disclosure. Both Newberger et al. and Kelley concluded that although difficulties persist 1 to 2 years following disclosure, there is some evidence that symptoms of general distress decrease over time.

Two studies comparing general level of psychological distress in mothers versus fathers have yielded mixed results. Manion et al. (1996) reported that nonoffending mothers experienced significantly more overall emotional distress than did nonoffending fathers or control mothers whose children had not been abused. Nonoffending fathers experienced significantly higher levels of distress than did control fathers. Kelley (1990), on the other hand, found that the composite measure assessing both number of symptoms and intensity of perceived distress was significantly higher for fathers than for mothers 2 years postdisclosure. Manion et al. suggested a variety of

possible interpretations for the discrepancy between these two studies such as measurement differences, selection bias, and the possibility that fathers may experience a delayed stress reaction.

Research examining general distress in nonoffending parents has identified several variables worthy of future research. Studies suggest that nonoffending mothers with a history of CSA experience significantly more general psychological distress (e.g., Deblinger et al., 1994; Hiebert-Murphy, 1998; Kelley, 1990; Timmons-Mitchell, Chandler-Holtz, & Semple, 1996, 1997) and PTSD symptoms (Timmons-Mitchell et al., 1996, 1997) than do mothers without such a history. Kelley (1990) found no significant differences in general distress between nonoffending fathers with and without an abuse history. Studies also suggest that nonoffending parents are more likely to experience elevated levels of general distress if their children experienced ritual abuse (e.g., Kelley, 1990), if their children testified in court (e.g., Burgess et al., 1990), or if the mother felt alone in dealing with the allegations (Deblinger et al., 1993).

Summary

Evidence strongly suggests that a substantial number of nonoffending mothers and fathers experience significant distress following the sexual abuse of their children. Unfortunately, due to the correlational nature of these studies, it is not possible to assess the extent to which such symptoms preceded the disclosure or occurred in response to it.

IS PARENTAL SUPPORT/PROTECTION ASSOCIATED WITH CHILDREN'S EMOTIONAL AND BEHAVIORAL ADJUSTMENT FOLLOWING SEXUAL ABUSE?

Early research examining the effects of CSA on mental health focused primarily on abuse-related risk factors such as age of onset, severity, and duration. More recent research has emphasized the importance of protective factors such as family environment (e.g., family support) and individual-difference variables (e.g., coping and attributional style) (Spaccarelli, 1994). Both the theoretical and empirical literature suggest that children's emotional and behavioral adjustment following their victimization is associated with the reactions and support they receive from parental figures. In fact, several studies (e.g., Fromuth, 1986; Johnson & Kenkel, 1991; Tremblay, Hebert, & Piche, 1999) have suggested that parental support may be a better predictor of psychological adjustment than are abuse-related factors. Because abuse-related factors are relatively unchangeable and

cannot be the target of treatment (Conte & Schuerman, 1987), protective factors such as parental support may exert a greater impact on a child's behavioral and emotional adjustment over time.

In the past 20 years, numerous studies have provided convincing evidence that greater parental support is associated with better emotional and behavioral adjustment in sexually abused children. Spaccarelli and Kim (1995) reported that parental support was the single best predictor of resiliency in sexually abused girls. Tremblay et al. (1999) reported that both social support and coping strategies exerted a direct effect on victims' symptoms instead of the anticipated mediator effect. Evidence suggests that children who have a supportive caretaker exhibit fewer symptoms of distress (e.g., Adams-Tucker, 1982; Esparza, 1993; Morrison & Clavenna-Valleroy, 1998) and fewer abuse-specific symptoms (Leifer et al., 1993) than children who do not. Similar results have been found for children who perceive their mothers to be less rejecting (e.g., Deblinger, Steer, & Lippmann, 1999a; Lovett, 1995) than for children who perceive higher levels of rejection. Conte and Schuerman (1987) also found that victims who were described by social workers as having supportive relationships with a sibling or adult exhibited fewer symptoms of distress than did victims who had less supportive relationships. Finally, abused children who had supportive caretakers were also more likely to disclose (e.g., Elliott & Briere, 1994; Lawson & Chaffin, 1992) and less likely to recant their allegations (Elliott & Briere, 1994) than were children who did not.

Studies also have reported that nonoffending parents' emotional reactions following the abuse are a significant predictor of overall level of distress (Johnson & Kenkel, 1991) and psychological symptoms in sexually abused children (Mannarino & Cohen, 1996b). Sauzier, Salt, and Calhoun (1990) found that neither the mothers' concern for nor actions they took to protect their children prevented the harmful psychological effects of abuse. However, expressions of anger and punitive behaviors against the children from the mothers were associated with greater behavioral disturbances in the children. Other studies have reported that lack of maternal support following disclosure was associated with removal from the mother's custody (e.g., Elliott & Briere, 1994), placement in foster care (e.g., Everson et al., 1989; Leifer et al., 1993), and decreased likelihood that the case would be accepted for prosecution (e.g., Cross, De Vos, & Whitcomb, 1994). In addition, in a study examining children's reactions to testifying in court, Goodman et al. (1992) reported that children who lacked maternal support experienced more distress. Finally,

although a study by Hazzard, Celano, Gould, Lawry, and Webb (1995) found that symptomatology was not associated with abuse-related support, the girls who had better overall relationships with their caretakers exhibited fewer externalizing and internalizing symptoms. The authors suggested, however, that failure to find a relationship with abuse-related support may have been due to a ceiling effect on the instrument used in this study.

A victim's relationship with the offender is also likely to exert considerable impact on a child's emotional and behavioral adjustment. Lipovsky, Saunders, and Hanson (1992) examined victims' relationships with sexually abusive fathers who acknowledged the abuse. Higher levels of self-reported depression in victims were associated with relationship problems with the offending fathers, regardless of whether the quality of the relationship was assessed by the child or by the offender. No significant association was found between victims' self-reported depression and their relationships with their mothers.

The vast majority of studies involving sexually abused children suggest that parental support is associated with better psychological adjustment in children. Results from a recent study by Feiring, Taska, and Lewis (1998) reported this association as well, though they further suggested that the source of the support (e.g., parent, friend, other relative) may differentially affect the child's level of adjustment following disclosure. Specifically, children and adolescents who received primary support from parents tended to be better adjusted than were those who received their primary support from friends or other relatives. In addition, adolescents who relied on peers for support, to the exclusion of parents, were at particularly high risk for adjustment difficulties. Also, adolescents were less likely to receive, and be satisfied with, support they received from parents and relatives than were younger children. Finally, Tremblay et al. (1999) found that whereas support from family members was associated with the child's level of adjustment, support from peers was not.

Retrospective studies of adult survivors of childhood sexual assault have, in general, reported results similar to those found in studies involving children. Wyatt and Mickey's (1987) community study found that female adult survivors' attitudes toward men were moderated by the level of support they received from parents and others. Roesler (1994) reported that reactions to a child's first disclosure predicted later effects of CSA, with negative reactions associated with greater distress in adulthood. Fromuth's (1986) early retrospective study of female college students reported that parental support was a better predictor

of psychological adjustment than were other variables, including victimization status (i.e., abused vs. nonabused). Similarly, Runtz and Schallow (1997) reported that there was little direct relationship between CSA and adjustment in their sample of male and female college students. Rather, their findings suggested that both social support and coping strategies exerted a greater influence on adjustment than did the extent of the abuse. Finally, as part of a larger study examining family violence and alcohol use, Testa, Miller, Downs, and Panek (1992) examined the role of social support in moderating the impact of child sexual assault on the psychological adjustment of adult women. Although surprisingly there was no relationship between social support and adjustment for sexual abuse victims who were in treatment for (a) alcoholism, (b) being battered, or (c) other mental health problems, positive social support following disclosure was associated with fewer psychological symptoms for women in a nontreatment comparison group.

Lynskey and Fergusson's (1997) longitudinal study of young adults sexually abused as children found that individuals who reported lower levels of paternal care (i.e., less support, affection, and nurturing provided by the father) had higher levels of psychiatric symptoms and adjustment problems than did those who reported higher levels of paternal care. Contrary to most other studies, however, maternal care, maternal protection, and paternal protection were not associated with adjustment difficulties in this sample.

The relative consistency of findings regarding the association between parental support and emotional and behavioral adjustment to CSA is surprising given considerable methodological differences across studies. In addition to differences in sample characteristics, studies varied in terms of whether the support was provided by parental figures or from friends, siblings, and/or other relatives. Also, some studies specifically targeted abuse-related support following disclosure (e.g., Adams-Tucker, 1982; Everson et al., 1989; Jinich & Litrownik, 1999; Leifer et al., 1993; Morrison & Clavenna-Valleroy, 1998), whereas others utilized more global, non-abuse-specific measures to assess parental support (e.g., Esparza, 1993; Feiring et al., 1998; Lovett, 1995; Lynskey & Fergusson, 1997; Spaccarelli & Kim, 1995; Tremblay et al., 1999). Additional studies are needed to examine the relative importance of abuse-specific support following disclosure, compared to overall levels of support in the parent-child relationship prior to the abuse. Recent developments in both the theoretical (e.g., Alexander, 1992; Friedrich, 1995) and empirical literature (e.g., Alexander, 1993; Leifer et al., 2001; Lewin,

2001; Roche, Runtz, & Hunter, 1999; Schreiber & Lyddon, 1998; Shapiro & Levendosky, 1999) focusing on the application of attachment theory to the study of sexual abuse may be especially valuable in improving our understanding of the impact of general versus abuse-specific support.

Data indicating that children's adjustment is associated with the support they receive from parental figures have been obtained regardless of whether the nonoffending parent's level of supportiveness was rated by the child (e.g., Esparza, 1993; Lovett, 1995), the parent (e.g., Jinich & Litrownik, 1999; Mannarino & Cohen, 1996a, 1996b), a mental health professional (e.g., Adams-Tucker, 1982; Conte & Schuerman, 1987; Everson et al., 1989), or by trained observers (e.g., Jinich & Litrownik, 1999). Similarly, studies suggest that better adjustment is associated with higher levels of support regardless of whether adjustment is rated by the child, the parent, or by a mental health professional.

Evidence suggests that nonoffending mothers' reports of their children's symptoms are correlated with a variety of factors including their belief in the allegation (Deblinger, Taub, Maedel, Lippmann, & Stauffer, 1997) and their own emotional symptoms (Deblinger et al., 1997, 1999a; Newberger et al., 1993). Mothers who are distressed tend to describe their children as being distressed as well (Deblinger et al., 1999a; Newberger et al., 1993). It is not yet clear, however, the extent to which maternal distress and level of supportiveness affect a mother's ability to provide accurate information regarding her child's symptomatology.

Studies examining the concordance between mothers' and children's ratings of the child's symptomatology have yielded mixed results. Several studies have reported that concordance rates are often quite low (e.g., Feiring et al., 1998; Newberger et al., 1993; Spaccarelli & Kim, 1995). Newberger et al. (1993) found that the concordance rate was low regardless of the mother's level of distress and thus concluded that mothers' psychiatric symptoms did not seem to distort their perceptions of their children's symptoms. Everson et al. (1989), on the other hand, found that the concordance rate between the child's self-report during a clinical interview and maternal reports of the child's symptoms was fairly high for supportive mothers, but that concordance was relatively low for mothers who were ambivalent or nonsupportive. They thus concluded that many maternal reports of children's symptoms have questionable validity. In light of such uncertainty, it is generally agreed that multiple informants should be used during the assessment process. Additional research is

needed to clarify how various factors affect parents' reporting of their children's symptoms.

Finally, data suggest a relationship between children's self-reported distress and parents' self-reported distress. In a study of incestuous abuse perpetrated by the father, Hanson, Saunders, and Lipovsky (1992) found that the self-reported level of distress experienced by both offending fathers and by nonoffending mothers was significantly related to the victims' self-reported anxiety. Furthermore, maternal distress was associated with victims' self-reported fears, though paternal distress was not. No significant associations were found between parental distress and victims' self-reported depression.

Summary

Considerable evidence suggests that parental support is associated with both the short- and long-term adjustment of sexually abused children. Recent research suggests that protective factors such as parental support may affect adjustment to an even greater extent than do traditional abuse-related risk factors. However, it is not yet clear whether abuse-specific support or overall level of support in the parent-child relationship will be a better predictor of both short- and long-term adjustment.

DOES PROVIDING PARENTS WITH SUPPORT LEAD TO BETTER ADJUSTMENT IN SEXUALLY ABUSED CHILDREN?

Nonoffending parents often report that they did not receive the type or level of support that they needed from traditional interventions such as police, caseworkers, or counselors (e.g., Alaggia, Michalski, & Vine, 1999; Davies, 1995; Jinich & Litrownik, 1999; Massat & Lundy, 1999; Rivera, 1988). Such services were perceived to be inadequate for a variety of reasons (e.g., lack of help during the initial crisis period following disclosure, services were difficult to access and time limited, failure to provide assistance in child management strategies, and lack of communication with police and child welfare workers). Studies suggest that parents who experience less social or environmental support are (a) more distressed (e.g., Hiebert-Murphy, 1998; Manion et al., 1996), (b) less supportive of their children (e.g., Leifer et al., 1993), (c) less likely to have their children benefit from treatment (Friedrich, Luecke, Beilke, & Place, 1992), (d) more likely to have their children placed in foster care (e.g., Leifer et al., 1993), and (e) more likely to exhibit less parental satisfaction (Hiebert-Murphy, 2000).

Parents who are experiencing high levels of distress may have difficulty providing support to their children and difficulty following through with interventions designed to help the child. Theoretically, if nonoffending parents are provided with services designed to increase their own coping abilities, they should be better able to help their children cope effectively with abuse-related issues (Mannarino & Cohen, 1996a; Stauffer & Deblinger, 1996). Based on assumptions such as this, numerous authors have recommended interventions targeting nonoffending caregivers (e.g., Burgess et al., 1990; Conte & Schuerman, 1987; Deblinger et al., 1993; Giarretto, 1982; Howard, 1993; Kelley, 1990; MacFarlane, 1986; Newberger et al., 1993; Regehr, 1990; Salt et al., 1990). Such interventions may supplement the variety of treatments available for sexually abused children (see Saywitz, Mannarino, Berliner, & Cohen, 2000, for a review).

The literature contains several descriptions of support groups for nonoffending mothers (e.g., Cammaert, 1988; Damon & Waterman, 1986; Hildebrand & Forbes, 1987; Landis & Wyre, 1984; Sgroi & Dana, 1982). Other articles describe support groups for both mothers and fathers (e.g., DeVoss & Newlon, 1986; Haase, Kempe, & Grosz, 1990; Sesan, Freeark, & Murphy, 1986; Winton, 1990). Although both the format and content of these groups vary widely, some of the more frequently cited group discussion topics include dealing with emotional responses, communication skills, parenting skills, assertiveness skills, interacting with the legal system, addressing one's own history of victimization, understanding the dynamics of incest, and other related issues.

One promising new approach, the Family Advocates program, is an early intervention model that places a supportive professional with the nonoffending caregiver at the time of the initial investigation (Carnes & Leslie, 2000). The supportive contact continues until the case is resolved, or until the caregiver no longer needs it. The professional initially works closely with the investigative team and helps assess the caregiver's level of distress, supportiveness of the child, and potential loss of economic and emotional support related to the allegations. Ongoing services provided to the caregiver include a caregiver support group, home visitation as needed, help with obtaining financial and other support from the community, and referrals to therapy as appropriate. The supportive professional also coordinates closely with the child's therapist. Another interesting intervention (Alaggia et al., 1999) utilizes a peer support program led by paid nonprofessional peer staff, who (a) were either

sexually abused as a youth or (b) are the parent of a sexually abused child. The program's objective is for the peer staff to provide support for parents and their sexually abused child that complements and expands formal treatment services.

The wide range of interventions designed for nonoffending parents offers valuable clinical information for professionals interested in working with parents of sexually abused children. Unfortunately, however, the literature contains remarkably few scientifically rigorous empirical studies that directly test the effectiveness of such interventions. A recent series of studies conducted by both Cohen and Mannarino and by Deblinger and her colleagues has utilized more methodologically sophisticated research designs to empirically examine cognitive-behavioral interventions with nonoffending parents. These well-designed studies utilized random assignment, a control condition, standardized assessment, 1 to 2 year posttreatment follow-up assessments, and interventions targeting both the parent and the child.

Deblinger, Lippmann, and Steer (1996) examined the effectiveness of a 12-week cognitive-behavioral intervention (Deblinger & Heflin, 1996) focused on sexually abused children suffering from post-traumatic stress symptoms and other behavioral difficulties. Participants (ages 7-13) were randomly assigned to one of four conditions (i.e., child intervention only, nonoffending parent intervention only, combined child and parent intervention, and community control condition). Unfortunately, many of the participants in the control condition either did not receive treatment or else the treatments they received were highly variable. Results indicated that children who received the cognitive-behavioral treatment (either alone or in conjunction with their parent) exhibited fewer symptoms of PTSD than children who did not. Mothers who received cognitive-behavioral therapy (CBT) (either alone or in conjunction with their children) reported greater improvement than did mothers (a) in the community control condition or (b) not assigned to receive treatment. Specifically, they reported more effective parenting skills and fewer externalizing behavior problems in their children. In addition, their children reported less depression. Treatment gains were maintained during a 2-year follow-up for all variables except parenting skills (Deblinger, Steer, & Lippmann, 1999b), which declined slightly after 1 year. No further decreases were observed at the 2-year follow-up. These data highlight the importance of engaging nonoffending parents in the CBT of sexually victimized children, especially those exhibiting depressive symptoms or

externalizing behavior problems (Deblinger et al., 1996).

A similar study by Stauffer and Deblinger (1996) examined the efficacy of a cognitive-behavioral treatment (Deblinger, McLeer, & Henry, 1990) for mothers of sexually abused children age 2 to 6. Although this study did not use a control group due to both ethical and pragmatic considerations, a naturally occurring waiting period prior to treatment allowed for collection of baseline data with which they evaluated the impact of treatment versus the passage of time. Intervention included separate groups for both parents and children, although the study did not attempt to assess which aspects of intervention were responsible for specific improvements. Results indicated that mothers experienced significantly lower levels of distress and avoidance of abuse-related thoughts and feelings following treatment. They also reported improved parenting skills and fewer sexual behavior problems in their children. In addition, these gains were maintained at the 3-month follow-up and appeared to be related to treatment rather than to the passage of time.

Deblinger, Stauffer, and Steer (2001) recently completed a study comparing the efficacy of supportive and cognitive-behavioral group therapies for sexually abused children (age 2-8) and their mothers. Mothers who participated in the CBT groups reported greater reductions in (a) their negative emotional reactions regarding the sexual abuse and (b) their intrusive thoughts at posttest than did mothers in the less structured support group. In addition, children in the CBT group showed greater improvement in their knowledge regarding body safety skills at posttest than did children in the supportive therapy group. These results are generally consistent with previous studies suggesting that cognitive-behavioral treatment of both nonoffending mothers and sexually abused children may have beneficial effects for both the child and the parent. They further suggest that group CBT may be beneficial for young children who are not demonstrating clinically significant behavior problems at the time of referral.

In a treatment study for sexually abused preschool children, Cohen and Mannarino (1996a, 1996b, 1997, 1998a) compared the effectiveness of a 12-week CBT (Cohen & Mannarino, 1993) with a nonspecific, nondirective supportive therapy (NST). NST was chosen as the comparison treatment because the authors felt it (a) would be unethical to use a no-treatment or wait-list control design and (b) would control for nonspecific aspects of CBT intervention. NST was designed to provide support, build rapport, and encourage the expression of feelings rather than to

address issues of sexual abuse directly. Both the CBT and NST provided treatment to parents as well as to children. Results indicated that CBT was more effective than NST on the majority of outcome measures (i.e., total behavior problems, internalizing symptoms, and sexual behavior problems). These results were obtained both immediately following the completion of treatment (Cohen & Mannarino, 1996b) and at the 1-year follow-up (Cohen & Mannarino, 1997). Inconsistent with previous findings, however, maternal support was not correlated with sexual behavior problems or with other symptomatic behaviors in the abused group. Methodological explanations that could possibly account for this unexpected finding include the study's reliance on mothers' ratings of their own support rather than on clinical interviews or clinical ratings, the high level of supportiveness exhibited by all of the mothers who volunteered to participate in this study, and a tendency for the mothers to present themselves in a favorable light.

In addition, Cohen and Mannarino (1996a, 1998a) examined factors that mediated outcome both immediately following the completion of treatment and during a 6- and 12-month follow-up. Results immediately following treatment indicated a strong relationship between abuse-related emotional distress in parents and treatment outcome in children. At the 12-month follow-up, however, levels of parental emotional support (both support given by the mother to the child as well as the mother's perception of the social support she herself received) were more predictive of treatment outcome in children than was emotional distress experienced by the parent. In addition, at the 12-month follow-up, the strongest predictor of outcome was treatment group, indicating that CBT was more effective than NST. Based on this study, Cohen and Mannarino strongly advocated for the inclusion of parents in CBT for sexually abused children.

In a similar study, Cohen and Mannarino (1998b) compared a sexual abuse-specific CBT (SAS-CBT) with an NST for sexually abused children age 7 to 15. The parent component of SAS-CBT emphasized issues such as decreasing parental emotional distress, enhancing parental support for the child, and managing child behavior difficulties related to the abuse. NST also provided treatment to both parents and children but in a less structured manner. Treatment emphasized provision of empathy and support, addressing upsetting feelings, and reestablishment of trust and positive interpersonal expectations. Results indicated that the SAS-CBT group exhibited statistically significant reductions in depressive symptomatology. Furthermore, when clinical significance was

assessed, a trend was observed suggesting that SAS-CBT intervention may have been more effective at decreasing sexually inappropriate behaviors than was NST. Unlike the Deblinger et al. (1996) study, however, it is not possible to determine the extent to which therapeutic improvements were the result of interventions directed toward the children versus those directed toward the parents. The authors suggest that because parental emotional distress predicted treatment outcome in preschool children (e.g., Cohen & Mannarino, 1996b), it is likely that the emphasis on alleviating parental distress in the present study also played an important role in decreasing children's depressive symptoms.

A study by Celano, Hazzard, Webb, and McCall (1996) compared the efficacy of two short-term individual therapy interventions for sexually abused girls (age 8 to 13) and their nonoffending mothers from primarily low-income, African American families. Participants were randomly assigned to one of two conditions. The experimental condition was based on Finkelhor and Browne's (1985) four-factor model designed to address issues of blame and stigmatization, betrayal, traumatic sexualization, and powerlessness. The control condition (referred to as "treatment as usual") was relatively unstructured and involved support, education, and discussion of the clients' symptoms, feelings, and thoughts. In both conditions, half of the session was generally spent with the child and the other half with the caretaker. Several sessions also included conjoint activities. Following treatment, children in both treatment conditions exhibited (a) decreased PTSD, internalizing symptoms, and externalizing symptoms; (b) fewer traumagenic beliefs reflecting powerlessness and self-blame; and (c) increased psychosocial functioning. However, the experimental condition was more effective than the control condition for (a) decreasing caretaker's self-blame and expectations of undue negative impact of the abuse and (b) increasing the caretaker's support of the child. The authors suggested that treatment involving both the child and the nonoffending caretakers may ultimately result in improved child outcome.

Finally, a study by Jinich and Litrownik (1999) yielded somewhat promising results indicating that supportive behaviors of nonoffending parents could be increased through a brief videotape intervention presented during the initial evidentiary interview following disclosure. Social learning techniques were utilized to provide information and to model supportive responses. Although this intervention was only moderately successful, it highlights the importance of intervening at an early stage of the disclosure process.

This may be particularly important given the association between parental reactions and the emotional and behavioral adjustment of sexually abused children.

Summary

In recent years, both clinicians and researchers have emphasized the importance of providing intervention for nonoffending caregivers following the sexual abuse of their children. Although research in this area is still in its infancy, studies suggest that interventions directed toward nonoffending parents may not only be beneficial to the parent but may lead to better adjustment in sexually abused children as well.

CONCLUSION AND IMPLICATIONS FOR MENTAL HEALTH PROFESSIONALS

Nonoffending parents of sexually abused children are a heterogeneous group. They vary widely in terms of the levels of belief, supportiveness, protectiveness, and distress that they exhibit, suggesting that there is no "typical response" of nonoffending parents to the sexual abuse of a child. Research examining the reactions of nonoffending parents to the sexual abuse of their children has focused primarily on mothers, although some studies have examined the reactions of nonoffending fathers and other individuals as well. Although it would be premature to draw firm conclusions regarding reactions of nonoffending parents, several apparent trends have emerged in the literature. Based on these preliminary findings, a number of implications for mental health professionals who work with sexually abused children and their families will be highlighted.

One consistent finding in the literature indicates that the majority of nonoffending mothers believe at least some aspect of their children's allegations, regardless of whether the alleged incident involved intrafamilial or extrafamilial abuse. However, a substantial number of parents disbelieve some or all of the allegation, and ambiguity often surrounds the alleged incident. Given the unexpected and traumatic impact of an abuse disclosure, a degree of initial disbelief and/or denial is likely, and sometimes appropriate. In addition, initial reactions of parents often do not predict their subsequent responses. Thus, one goal of mental health professionals should be to help the parent(s) remain calm, focus on the needs of the child, and objectively examine the evidence as it emerges. Adoption of an empathic and nonjudgmental approach toward a parent's initial uncertainty may be more effective than a confronta-

tional approach that is presumptive and could alienate the parent.

Although the majority of nonoffending parents respond in a supportive and protective manner, it is not uncommon for the support to be somewhat ambivalent or inconsistent. Thus, another key goal of mental health professionals should be to devise interventions that quickly and effectively improve a parent's ability to provide his or her child with strong and consistent support and protection, throughout the investigation and beyond. One difficulty, however, is that many times a parent's perception of what constitutes supportive behavior is not adequate to meet the child's needs. Parents may need considerable education and support to recognize the ongoing needs of their children and to know how to increase their level of support to an optimal level.

Of the six major questions addressed in this article, the one yielding the most inconsistent and inconclusive findings examined factors that predict parental belief, support, and protection following a disclosure of sexual abuse. Although the mother's relationship with the perpetrator has been subject to considerable empirical scrutiny, this factor has failed to produce a consistent pattern of results. On the other hand, evidence seems to suggest that a maternal history of childhood abuse does not affect a mother's reactions to her child's abuse. In addition, although firm conclusions regarding the extent to which maternal support varies as a function of the victim's age or gender cannot be drawn, several studies suggest that mothers may be more likely to believe and support the allegations of both younger children and of boys. Unfortunately, very few studies have examined variables that predict the extent to which fathers believe, support, and protect their children following a disclosure of sexual abuse. Clinical impressions suggest that this gap in the literature may be attributable to the greater tendency for mothers to accompany children for abuse-related services (e.g., psychological treatment). Considerable research is needed to improve our understanding of factors that both facilitate and impede maternal and paternal support, particularly because such information could improve our ability to design effective intervention programs. Several studies in a special issue of *Child Maltreatment* demonstrate the value of studying maltreatment in the context of children's relationships, not only with their biological mothers but with biological fathers and father figures as well (i.e., Dubowitz et al., 2001; Lamb, 2001; Marshall, English, & Stewart, 2001; Radhakrishna, Bou-Saada, Hunter, Catellier, & Kotch, 2001).

Considerable evidence suggests that nonoffending parents often experience symptoms of depression,

PTSD, and general psychological distress following the sexual abuse of their children. Although reactions of fathers are commonly overlooked, several studies provide strong evidence that both mothers and fathers frequently experience distress. As a result, when working with sexually abused children and their families, mental health professionals should routinely include an evaluation of whether either parent should be referred for treatment to address his or her own psychological symptoms. However, because distress and coping abilities will vary across time and situations, parental needs should be assessed at different points in time. In addition, although a child's disclosure of abuse is correlated with parental distress, we cannot conclude that the disclosure necessarily caused the distress.

One of the most important and consistent findings in the literature indicates that support/protection from nonoffending caregivers is associated with the emotional and behavioral adjustment of sexually abused children. Despite the correlational nature of this finding, it does suggest that one of the key goals of mental health professionals should be to help parents support and protect their children. Some caregivers who experience little distress and who have strong coping skills and support systems may require little or no professional assistance. Others, however, will need extensive intervention. Further research examining the extent to which children's adjustment is affected by the support they receive from others (e.g., siblings, grandparents, peers) is also needed.

Although a wide variety of interventions designed to assist nonoffending parents and their sexually abused children are currently available, there are relatively few studies that empirically evaluate the efficacy of any of these approaches. Studies by Deblinger and by Cohen and Mannarino are noteworthy exceptions that suggest that cognitive-behavioral treatments involving both parent and child interventions may be especially beneficial in reducing the negative impact of abuse. However, similar to the conclusions drawn in Saywitz et al.'s (2000) review of treatments for sexually abused children and adolescents, "empirical support for abuse-specific CBT must be viewed in the context of a dearth of information about the efficacy of other treatments" (p. 1045). To date, there are no definitive studies indicating which types of intervention are best suited for which groups of nonoffending parents and their sexually abused children. For example, high functioning families who exhibit strong parent-child relationships may benefit most from abuse-specific cognitive-behavioral interventions. Conversely, complex or multiproblem cases characterized by families who have a long history of

attachment difficulties may benefit from short-term abuse-focused therapy in conjunction with more long-term interventions designed to improve parent-child interactions or attachment relationships. Additional carefully controlled field-based studies are needed to evaluate the differential effectiveness of the wide variety of interventions designed to help nonoffending parents (or other relevant caregivers) and their sexually abused children. It is hoped that future research will be able to identify those interventions that are most beneficial for specific subgroups of nonoffending parents and their sexually abused children.

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Comparative Efficacies of Supportive and Cognitive Behavioral Group Therapies for Young Children Who Have Been Sexually Abused and Their Nonoffending Mothers

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The differential efficacies of supportive and cognitive behavioral group therapy models designed for young children (ages 2 to 8) who have experienced sexual abuse and their nonoffending mothers were compared. Forty-four mothers and their respective children participated in either supportive or cognitive behavioral therapy groups with the group format being randomly determined. Repeated measures MANOVAs indicated that compared to mothers who participated in the support groups, the mothers who participated in cognitive behavioral groups reported greater reductions at posttest in (a) their intrusive thoughts and (b) their negative parental emotional reactions regarding the sexual abuse. The children treated with cognitive behavioral therapy demonstrated greater improvement in their knowledge regarding body safety skills at posttest than did the children who received supportive therapy.

Children who have experienced sexual abuse may suffer a wide range of emotional, behavioral, and social difficulties including anger, hostility, guilt, shame, depression, posttraumatic stress, sleep disturbances, fears, general behavior problems, and age-inappropriate sexual behaviors (Conte & Schuerman, 1987; McLeer, Deblinger, Henry, & Orvashel, 1992; Tufts, 1984; Wozencraft, Wagner, & Pellegrin, 1991). Although most of this literature has documented the effects of

sexual abuse on school-age and adolescent victims, authors have also suggested that although young children may be protected by their naivete (Browne & Finkelhor, 1986), these common emotional reactions may develop as they grow older and develop more of an understanding of the violation they experienced (MacFarlane et al., 1986). It has been found that although some children may exhibit adverse reactions to sexual abuse immediately, others may not develop difficulties until adolescence or adulthood (Beitchman, Zucker, Hood, daCosta, Akman, & Cassavia, 1992). Thus, it has been recommended that therapeutic interventions for young survivors focus not only on the amelioration of current symptomatology but on the prevention of potential difficulties (Berliner & Wheeler, 1987).

Research regarding variables that may contribute to the severity of the difficulties experienced has repeatedly found that supportive responses from nonoffending parents are significantly associated

Authors' Note: This study was funded by the National Institute of Mental Health, Grant #1R21MH53241. The authors would like to thank Allyson Maedel, M.A.; Marianne Clark, Psy.D.; Gwen Barton, M.S.W.; Joy Cohen, Psy.D.; Gladys Rosario, M.A.; Andrea Weiss, Ph.D.; the graduate student assistants; our colleagues at the Center for Children's Support; and all the parent and child participants for their important contributions to this research. Correspondence concerning this article should be addressed to Esther Deblinger, Ph.D., UMDNJ-SOM, Center for Children's Support, 42 East Laurel Road, Suite 1100B, Stratford, NJ 08084; e-mail: deblines@umdnj.edu.

with more positive postabuse adjustment in children (Adams-Tucker, 1981; Conte & Schuerman, 1987; Everson, Hunter, Runyon, Edelson, & Coulter, 1989). Unfortunately, the distress that many nonoffending parents feel themselves (Deblinger, Hathaway, Lippmann, & Steer, 1993; Kelley, 1990; Regher, 1990) may interfere with their ability to be optimally responsive to their children's needs at the time of a sexual abuse disclosure. In fact, there is evidence that greater maternal symptom distress is associated with poorer adjustment in children who have been sexually abused (Cohen & Mannarino, 1996a). To optimize children's postabuse adjustments, nonoffending parents need help in coping with their own distress, along with guidance in helping their children cope with the traumatic effects of child sexual abuse (Deblinger et al., 1993; Regher, 1990).

The interventions in the current study were developed specifically for young children who have been sexually abused and their nonoffending mothers with the combined goals of reducing current maternal and child symptomatology and minimizing later difficulties. Given that young children who have been sexually abused often experience less severe symptomatology, this population seems to be well served by the provision of cost-effective group treatment. The current study provided supportive groups, similar to those provided at other agencies within the community, and cognitive behavioral groups to young sexually abused children and their nonoffending parents.

Several recent studies have reported the effectiveness of cognitive behavioral therapies for children in individual therapy when the nonoffending parent, usually the mother, is included in the treatment process (Cohen & Mannarino, 1996b, 1997, 1998; Deblinger, Lippmann, & Steer, 1996; Deblinger, Steer, & Lippmann, 1999). These studies have found decreases in children's post-traumatic stress disorder (PTSD) symptoms, overall behavior problems, internalizing behaviors, sexual behaviors, and depression. A preliminary study by Stauffer and Deblinger (1996) indicated that utilizing group cognitive behavioral therapy was also effective in helping young children and nonoffending mothers overcome symptom distress in the aftermath of sexual abuse.

The purpose of the present study was to examine the differential effectiveness of cognitive behavioral and supportive group psychotherapies for young children who experienced sexual abuse and their nonoffending parents. This study assessed the psychotherapeutic gains made by children and parents after 11 weeks of therapy and then again 3 months after group treatment ended. The study was especially interested in determining whether the pretest and

posttest effect sizes (ESs) of the various outcome measures administered to the mothers and children were comparable for each type of treatment.

METHOD

Recruitment

The sample was primarily drawn from eligible nonoffending mothers and children (ages 2 to 8) who were referred to the Regional Child Abuse Diagnostic and Treatment Center (Center) for a forensic medical examination as part of a child sexual abuse investigation. In addition, community therapists, division of youth and family services (DYFS) offices, and prosecutors' offices were contacted by the Center regarding the dates of upcoming group programs and were encouraged to refer families to the Center to participate in the therapy groups. All child participants had made a credible disclosure of contact sexual abuse (Russell, 1983) to a professional prior to their participation in group. Parents and/or children who suffered psychotic disorders, severe developmental delays, and/or behaviors that were dangerous to themselves or others were excluded.

Participants

There were 67 maternal care providers (mothers) and their children between the ages of 2 and 8 who volunteered for the project along with 32 significant others who initially expressed an interest in attending the group psychotherapy sessions along with the mothers and children. However, 4 (6%) of the 67 mothers never returned for assignment, 5 (8%) left after attending one session, and 4 (6%) left after attending only two sessions. These persons were considered to be dropouts. The decision to consider persons who completed less than three sessions to be dropouts was based on the study by Barkham, Shapiro, Hardy, and Rees (1999) who reported that persons with subsyndromal depression benefited from at least three sessions of cognitive behavioral or psychodynamic interpersonal therapy. Therefore, 54 (81%) of the 67 mothers and their respective children who attended at least three group psychotherapy sessions were considered group therapy participants and were included in the study analyses. It is important to note that whereas participants were required to attend a minimum of three sessions, our sample of completers (described below) attended an average of eight therapy sessions ($M = 8.52$, $SD = 1.91$, range = 3-11).

To better understand the nature of our sample, we calculated the correlations of selected background

characteristics, pretest measures (as listed in Table 1), and group type with whether participants completed at least three treatment sessions. The background characteristics included child's age, gender, and ethnicity; identity of the offender (i.e., adult vs. older child); nature of the abuse (i.e., penetration vs. no penetration); maternal marital status; family income; and maternal history of adult or child sexual abuse. These background characteristics and pretest measures were chosen to reflect a broad spectrum of psychosocial functioning. To control for family-wise error rate, we used a Bonferroni adjustment of .05 divided by 22. None of the 22 correlations of selected background characteristics, pretest measures, or group type of the 67 mothers and children was associated with their dropping out of treatment (0 = no, 1 = yes). It should be noted that of the 54 mothers and children who attended at least three therapy sessions and completed pretest evaluations, 44 (82%) also completed both posttest and 3-month follow-up evaluations. Nine (17%) of the 54 mothers and children failed to complete posttest and 3-month follow-up evaluations, whereas 1 (2%) mother and child did not complete a follow-up evaluation but had previously completed a posttest evaluation. Additional correlational analyses were conducted to examine the relationships between the 22 variables listed above including background characteristics, pretest scores, and group type with whether a mother and child completed all three evaluations (0 = no, 1 = yes). Again, there were no significant correlations. Because none of the selected background characteristics, pretest measures, or group type was related (a) to dropping out of treatment or (b) to completing all three evaluations, we concluded that there was no identifiable, systematic participant bias with respect to either dropping out of treatment or completing all of the outcome evaluations. Therefore, we decided to concentrate our outcome analyses only on the 44 mothers and 44 children for whom complete data were available.

Completers

The final sample consisted of 44 maternal caregivers and 44 children between 2 and 8 years of age. There were 27 (61%) girls and 17 (39%) boys whose mean age was 5.45 ($SD = 1.47$) years. With respect to ethnicity, 28 (64%) children were White, 9 (21%) Black, 1 (2%) Hispanic, and 6 (14%) children represented other ethnic origins. Seventeen (39%) of the children had been referred by the State of New Jersey DYFS; 14 (32%) were sent by prosecutors' offices; 12 (27%) were recommended by pediatricians, psychologists, or other professionals; and 1 (2%) was a

self-referral by a parent. Sixteen (36%) of the children had been abused by adults (18 years old or older), whereas 28 (64%) had been abused by adolescents or older children who were 17 years old or younger. Four (9%) of the adult perpetrators were fathers or stepfathers, 6 (13.6%) were other adult relatives, and 6 (13.6%) were other adult nonrelatives. Of the perpetrators who were older peers, 2 (4.5%) were siblings, 11 (25%) were related older peers, and the remaining older peers were not related (34%). Penile penetration had occurred with 7 (16%) of the children, and the 37 (84%) other children had not experienced penile penetration. Because of the children's ages, the mothers were asked to estimate how old the children had been when the sexual abuse had first occurred and how frequently it had happened. The children's mean age at first sexual abuse was estimated at 4.50 ($SD = 1.47$) years. For 15 (34%) of the children, the mothers believed that the abuse had occurred once, whereas 29 (66%) of the children had been sexually abused on more than one occasion.

With respect to the maternal caregivers (mothers), there were 41 (93%) biological mothers, 1 (2%) adoptive mother, 1 (2%) grandmother, and 1 (2%) other female relative of the child. The mean age of the mothers was 33.11 ($SD = 8.71$) years. Sixteen (36%) of these mothers were currently married, and 28 (64%) were not. With respect to total annual household income, 24 (55%) reported incomes greater than \$20,000, whereas 20 (45%) had incomes equal to or less than \$20,000. Twelve (27%) of the mothers reported adult sexual assault, whereas 32 (73%) did not report having been sexually assaulted as adults. Twenty (45%) mothers reported sexual abuse as children, whereas 24 (54%) denied child sexual abuse.

As another means of measuring support, we documented the instances in which the mothers and children were accompanied to treatment by another supportive adult. There were 15 (34%) women and children who had other people accompany them to at least one therapy session. Of these 15 companions, 11 (73%) were the biological fathers, 2 (13%) were men with whom the mothers were friendly, 1 (7%) was a grandmother, and 1 (7%) was another female relative. The mean number of sessions attended by these companions was 2.64 ($SD = 3.47$).

Procedure

Each maternal guardian signed voluntary consent forms for herself and her child that had been approved by the Institutional Review Board. Children who were 8 years of age gave their verbal assent to participate. The pretreatment assessment was then com-

pleted over the course of two assessment sessions prior to the start of the upcoming therapy group.

The type of group (cognitive behavioral vs. supportive counseling) assignment was randomly determined by computer program. Therapists participating in this treatment outcome investigation received training and supervision in both group formats and led both cognitive behavioral and supportive groups. Therapists were informed of the randomly determined group therapy format prior to their initiation of a new group, and they described the format to participants in the first session of each group program. The therapists' compliance with adhering to each treatment modality was assured by the investigators' monitoring of tape recordings made during each session as well as the blind review of these audiotapes by graduate student assistants trained in completing treatment adherence checklists. The adherence checklists incorporated items descriptive of cognitive behavioral and supportive interventions. For example, homework assigned and reviewed was a cognitive behavioral item, and group members' determined topics discussed was a supportive item. Any deviations from protocol were addressed in weekly supervision sessions. However, it should be noted that there were no substantial deviations from the designated protocols detected by either the supervisors or the blind reviewers.

Instruments

Mothers

Miller Behavior Style Scale (Miller, 1990). The mothers were administered the Miller to ascertain whether their general coping styles could be characterized as information seeking (i.e., monitoring) or information avoiding (i.e., blunting). It was hypothesized that the mothers' Miller total scores might be differentially correlated with treatment outcome depending on the type of group treatment received. However, there were only 5 (11%) respondents with Miller total scores less than 0, indicating blunting, and the 39 (89%) other respondents were monitors. As indicated in the results, the Miller total scores were not significantly associated with any of the outcome measures. The Miller total scores were thus not used as covariates in any of the multivariate analyses described below.

SCL-90-R Posttraumatic Symptom Scale (SCL-90-R) (Derogatis, 1983). Selected items from the SCL-90-R were used to assess maternal PTSD symptomatology. The Crime-Related Post-Traumatic Stress Disorder Scale for Women within the SCL-90-R is a 28-item scale that demonstrates high internal consistency

(Saunders, Arata, & Kilpatrick, 1990) and demonstrates convergent validity with the Impact of Events Scale (IES) (Arata, Saunders, & Kilpatrick, 1991).

IES. The IES is a 15-item self-report measure designed to assess subjective distress following an identified event and yields two subscales: Intrusive Thoughts (IES-I) and Avoidant Thoughts (IES-A). Horowitz, Wilner, and Alvarez (1979) reported split-half reliability for the total IES scale of .86, and the internal consistencies of the IES-I and IES-A subscales were, respectively, .78 and .82. They also found that the 1-week test-retest reliability for the total score was .87 and .89 for the IES-I and .79 for the IES-A.

Parent Emotional Reaction Questionnaire (PERQ). The PERQ is a 15-item self-report scale assessing parents' feelings of fear, guilt, anger, embarrassment, and distress specifically with respect to the discovery that their child had been sexually abused. The PERQ has demonstrated excellent internal consistency, test-retest reliability, and predictive validity (Cohen & Mannarino, 1996a).

Parent Practices Questionnaire (PPQ). The PPQ is a paper-and-pencil self-report measure of parents' interactions with their children (Strayhorn & Weidman, 1988). Regarding interitem reliability, the PPQ has an alpha coefficient of .78. Test-retest reliability was .79 over a 6-month period. Strayhorn and Weidman (1988) also reported a significant correlation ($p < .01$) between parents' self-report on the PPQ and parent behavior as measured by blind raters of parent-child videotapes. It should be noted that the version of the PPQ used in the present study changed three items about general parenting practices to questions specific to interactions with their children regarding child sexual abuse. Stauffer and Deblinger (1996) found the coefficient alpha for this form of the PPQ to be .72.

Social Support Questionnaire (SSQ). The SSQ is a paper-and-pencil measure of the availability and helpfulness of different types of support (Zich & Temoshok, 1987). The SSQ describes eight examples of support and asks respondents to rate, on a 5-point scale, how desirable each type was to them, how available it was, how often they have used it, and how useful it was. Zich and Temoshok (1987) reported standardized coefficient alpha reliabilities for the 8-item scales regarding support as follows: how desirable (.89), how available (.88), how often used (.85), and how useful (.84). For this investigation, two subscales were used to assess how often parents utilized emotional sustaining support and/or problem-solving support.

Therapy Satisfaction Questionnaire (TSQ). The TSQ is a 14-item questionnaire developed to assess clients' opinions about the group therapy programs. Five-point Likert-type scale questions assessed various aspects of satisfaction, including extent of support received, extent to which the group helped parents manage or cope with various issues related to sexual abuse, personal difficulties and parenting, and extent to which the children's group was helpful.

Children

PTSD Scale. The PTSD Scale is based on the PTSD section of the Kiddie Schedule for Affective Disorders and Schizophrenia for School Age Children—Epidemiologic version administered to parents (K-SADS-E) (Orvaschel, Puig-Antich, Chambers, Tabrizi, & Johnson, 1982). This scale was used to assess PTSD exhibited by the child. Interrater reliability for the PTSD section of K-SADS-E was reported to be 86% agreement for current PTSD (McLeer et al., 1992).

Child Behavior Checklist (CBCL). The CBCL is a paper-and-pencil measure that was completed by the mothers and additional caretakers to assess the children's social and behavioral functioning (Achenbach & Edelbrock, 1991). Test-retest reliability across age, sex, and problem scale was .89 over a 1-week period, .75 over a 1-year period, and .71 over a 2-year period. Mean r s for interparent agreement on the problem scales ranged from .65 to .76. Achenbach and Edelbrock (1991) recommended using the raw scores for research purposes to assess the fuller range of variation available with raw scores rather than T -scores. Therefore, raw scores were used for all analyses.

Child Sexual Behavior Inventory (CSBI-3). The CSBI-3 is a 44-item parent-report measure of sexual behavior in children ranging from normative behaviors (i.e., undressing in front of others) to age-inappropriate adult-like sexual behaviors. Previous versions of this instrument have demonstrated good test-retest reliability as well as discriminant validity, particularly with respect to distinguishing between children with and without a history of sexual abuse (Friedrich et al., 1992).

What If Situations Test (WIST). The WIST is a brief interview using vignettes to assess young children's abilities to recognize and respond effectively to hypothetical abusive situations (Sarno & Wurtele, 1997). The WIST consists of three vignettes describing appropriate requests to examine a child's genitals and three vignettes describing inappropriate touch requests. After each vignette, the child is asked a series of questions to assess his or her recognition of the re-

quest as appropriate or inappropriate and, if inappropriate, his or her responses. Children are asked four questions that identify separate skill categories (verbal response, physical response, telling, reporting details). Children's responses within each category are rated and scored 0, 1, or 2. The four skill categories are summed across the three inappropriate touch vignettes for a maximum total skill score of 24. Sarno and Wurtele (1997) found 1-month test-retest reliability on the total skill score of .85 and overall interrater reliability (kappa) for two blind raters of .87.

Therapies

The parents' and children's groups met for a total of 11 sessions for 1 hour and 45 minutes each session. The cognitive behavioral group met for an additional 15 minutes each week for a joint parent and child activity session. Parents in both conditions were asked to share information about themselves and their children during the 1st session. In addition, therapists provided information about the children's group and the treatment rationales. A representative from the Office of Victim Witness Advocacy spoke to each parent group between the 6th and 9th session of each group cycle in both conditions.

Cognitive behavioral group for parents. The goals of the cognitive behavioral parent group were threefold: (a) to assist parents in coping with their own emotional reactions to enable them to be more supportive of their children, (b) to educate parents about ways to initiate and maintain open parent-child communication regarding their children's sexually abusive experiences and other sexual concerns, and (c) to provide parents with behavior management skills to assist them in handling their children's behavioral difficulties. Each session included a joint parent and child activity session to provide parents with opportunities to practice the skills they were learning and receive feedback from therapists. The cognitive behavioral group was based on a similar individual therapy approach that has been described in detail by Deblinger and Heflin (1996). The format of the parents' group was highly structured and presented in three distinct modules. Although each session had a main focus, topics from each module were included in most sessions. The order of the topics presented varied somewhat according to the specific needs of each group; however, the most common presentation order and the average number of sessions spent with each module as the main focus were as follows.

- Module 1 (education/coping, three sessions): In this module, parents were encouraged to share their emo-

tional responses to their children's abuse while also learning to use cognitive coping strategies to dispute their dysfunctional thoughts. To assist parents in using this coping strategy, education about child sexual abuse was provided and used to illustrate how to dispel inaccurate thoughts. Throughout this module, it was emphasized that parents are important role models for their children, and thus their development of healthy and effective coping strategies is important to their children's well-being as well as their own.

- Module 2 (communication, modeling, and gradual exposure; 2 sessions): The goal of this module was to assist parents in initiating and maintaining open communication with their children. Parents were encouraged to share as much about their children's abusive experiences as they could with particular emphasis on their current thoughts and feelings. Parents were also given specific guidelines for talking to their children about the sexual abuse and providing age-appropriate education about healthy sexuality.
- Module 3 (behavior management, 6 sessions): The goal of this module was for parents to learn behavioral principles that would help them to interact more effectively with their children, thereby enhancing children's positive, prosocial behaviors and decreasing their problematic behaviors. Parents were given homework assignments each week to practice the parenting skills they were learning.

Supportive group for parents (comparison condition). The supportive group therapy was based on the information currently available in the clinical and empirical literature regarding self-help groups (e.g., Jacobs & Goodman, 1989; Kurtz, 1990; Kurtz & Powell, 1987) and support groups (e.g., Alexander et al., 1991; Knight, 1990; Ramsey, 1992; Resick, Jordan, Girelli, Hutter, & Marhofer-Dvorak, 1988). In addition to reviewing the literature, the investigators spoke with leaders of support groups for nonoffending parents in our community and developed the supportive counseling manual through further consultation with these and other leaders of support groups. The manual provided guidelines for therapists regarding facilitating group dynamics and developing therapeutic skills such as active listening, unconditional positive regard, reflecting feelings, and empathy. Topics for discussion were chosen by the group members, thereby giving us additional insight into the most pressing needs and concerns of nonoffending parents.

The first session of supportive group therapy was similar to the cognitive behavioral group in that parents were asked to share information about themselves and their children with the group. The remainder of the support group sessions was considerably less structured than the cognitive behavioral parent group sessions. Following the format of other support

groups in our community, the supportive counseling group began each session with a "check-in," during which time all parents had the opportunity to share with the group their most pressing concerns or the highlights of the past week. After everyone checked in, the group members would determine the topics for discussion during that session.

The therapist's role in the supportive counseling group was to serve as a supportive and empathic facilitator. Therapists actively ensured that all parents had an opportunity to speak during the session. Although support group therapists responded to parents' factual questions, they redirected other questions and comments to the group as a whole for guidance whenever possible. The objective here was to empower parents by respecting them as the experts regarding their own children and supporting their efforts to work through their concerns with the help of their peers. Therapists did not provide any specific information about cognitive coping, gradual exposure, or behavior management.

Children's group interventions. The parallel children's cognitive behavioral and supportive educational groups were quite similar in content. The main objectives for both group formats were to help children (a) to communicate about and cope with their feelings, (b) to identify "okay" and "not okay" touches, and (c) to learn abuse response skills. Although it was acknowledged that the group would talk about not okay touches including sexual abuse, children were not asked in either group format to speak specifically about their own experiences due to their young ages. Children occasionally made spontaneous disclosures. The counselors were trained to respond appropriately to such disclosures. The activities used in the children's groups were developed and standardized during 3 to 4 years of work with the children's groups prior to this study. Each session consisted of a variety of activities including singing, reading stories, drawing, pasting, dancing, and snack time, all of which are activities found in a regular pre-school setting.

The two children's group formats, however, differed in terms of the methods of delivering information and skills. The support group therapists utilized a didactic format; they presented age-appropriate information regarding child sexual abuse and personal safety using pictures, stories, and activity page exercises. The cognitive behavioral group therapists utilized a more interactive behavioral therapy format presenting the same information and skills via an interactive workbook (Stauffer & Deblinger, 1999),

role plays, behavior rehearsal, and joint parent-child exercises.

RESULTS

Although the group therapy formats were randomly determined to be either supportive or cognitive behavioral therapy, we first ascertained, before conducting across group analyses, whether any differences by chance might exist between participants assigned to the alternative group formats. The characteristics examined included child's age, gender, and ethnicity; identity of the offender (adult vs. older child); nature of the abuse (i.e., penetration vs. no penetration); maternal marital status; family income; maternal history of adult or child sexual abuse; maternal coping style (i.e., Miller Behavioral Style Scale); number of treatment sessions attended; and number of sessions accompanied by another adult. Group type (0 = supportive, 1 = cognitive behavioral) was not significantly related to any of the aforementioned characteristics when a Bonferroni adjusted alpha of .05/12 was used to control for the family-wise error rate. The mean scores of the 11 pretest outcome measures were also comparable for the 23 (52%) women and children who participated in the supportive groups and the 21 (48%) women and children who participated in the cognitive behavioral groups, $MANOVA F(11, 32) = .27, ns$. Furthermore, we found that only age (years) was significantly ($r = .66, p < .001$, two-tailed test) correlated with one of the 11 pretest outcome measures, the WIST total score. As expected, older children were more likely to describe effective responses to potentially threatening child sexual abuse situations as presented by the WIST than younger children were. Therefore, age was selected as a covariate to control for when examining any changes in posttest and follow-up WIST total scores. It is important to note that number of therapy sessions attended ($M = 8.52, SD = 1.91$, range = 3-11) and number of sessions in which another adult accompanied the mother during therapy ($M = 2.64, SD = 3.47$, range = 0-11) were not significantly associated with group type or any of the 11 pretest outcome measures. Subsequent analyses also indicate that these two variables were not associated with any pretest and posttest changes in the outcome measures.

The Statistical Analysis System's (SAS's) (SAS Institute, 1990) general linear modeling program was used to perform a repeated measures MANOVA with each of the 11 outcome measures to ascertain whether significant changes had not only occurred with respect to the main effect of time (time) but also for the interaction of time by group type (Time \times

Group). Table 1 not only presents the means and standard deviations of the 11 measures at pretest, posttest, and follow-up evaluations by type of group that was received but also the pretest and posttest ESs by type of group along with MANOVA F statistics for the time and Time \times Group interaction effects. The ESs shown in Table 1 are based on the pooled standard deviations of each pretest measure for both types of group therapy.

As Table 1 indicates, all of the scales yielded significant changes over time or had a significant Time \times Group interaction, except for the two SSQ subscales. Planned mean contrasts indicated that the significant changes had occurred between pretest and posttest, and the follow-up means of 10 of the 11 measures were comparable to those that had been found at posttest, with the exception of the PERQ. With respect to the PERQ, the social support group showed significant improvement from posttest to follow-up, whereas the cognitive behavioral group sustained their significant pretest to posttest gains. On all the other measures, therapeutic gains that had been observed at posttest were sustained at follow-up. The pretreatment to posttreatment findings indicated that the mothers who received cognitive behavioral therapy reported (a) significantly greater reduction in intrusive thoughts about their children being sexually abused on the IES-I and (b) significantly greater reduction in their levels of emotional distress on the PERQ at posttest than did the mothers who were treated with supportive therapy. The results also indicated that the children treated with cognitive behavioral therapy showed significantly more improvement in their demonstrated responses to situations that might pose threats of sexual abuse at posttest on the WIST than did the children who received supportive therapy.

We also performed a repeated measures MANCOVA for the pretest, posttest, and follow-up scores for the WIST total score using the child's age (years) as the covariate. The main effect for time was not significant, $F(2, 40) = 1.95, ns$, but the Time \times Group interaction remained significant, $F(2, 40) = 3.40, p < .05$. The adjusted mean WIST total scores at pretest, posttest, and follow-up were, respectively, 13.69, 12.87, and 13.94 for the children who received supportive group therapy. For the children who received cognitive behavioral therapy, the adjusted mean WIST total scores at pretest, posttest, and follow-up were, respectively, 12.54, 16.42, and 15.64. Regardless of age, the children who were treated with cognitive behavioral therapy demonstrated significantly greater gains in their knowledge and skills for coping with potentially abusive situations (i.e., WIST

TABLE 1: Means and Standard Deviations at Pretest, Posttest, and Follow-Up Evaluations (by group type)

Scale	Pretest		Posttest		Follow-Up		Pretest/Posttest Effect Size	MANOVA Effect
	M	SD	M	SD	M	SD		
SCL-90-R Post-Traumatic Stress subscale								
Support	18.17	18.04	12.35	11.67	12.91	12.19	.34	9.97***
Cognitive	25.33	16.07	14.67	20.28	11.48	14.59	.62	2.92
Impact of Events–Intrusive Thoughts								
Support	12.26	9.63	9.26	9.88	8.65	10.09	.30	16.17***
Cognitive	18.19	9.92	10.00	10.49	8.95	9.49	.81	3.23*
Impact of Events–Avoidance of Thoughts								
Support	13.91	10.48	11.91	9.85	10.65	10.02	.21	8.17***
Cognitive	15.95	8.13	10.90	9.55	8.90	8.52	.54	1.22
Parent Emotional Reaction Questionnaire								
Support	45.35	11.15	42.78	9.83	38.87	10.27	.22	19.36***
Cognitive	50.10	11.55	36.86	13.36	37.24	15.41	1.16	11.53***
Social Support–Emotional subscale								
Support	10.22	2.61	10.26	2.91	10.78	3.54	.01	.14
Cognitive	10.86	3.28	11.29	2.35	10.48	2.75	.15	.74
Social Support–Problem-Solving subscale								
Support	12.52	2.45	12.61	3.09	12.48	3.60	.03	.46
Cognitive	12.76	2.77	12.62	1.99	12.33	3.32	.05	1.87
Parental Practices Questionnaire								
Support	147.00	13.15	146.74	12.93	148.39	13.35	.02	3.54*
Cognitive	144.95	12.41	149.48	15.81	151.05	15.16	-.36	1.38
Post-Traumatic Stress Symptoms Scale								
Support	14.04	12.35	6.09	6.73	5.22	5.78	.74	12.55***
Cognitive	14.43	9.08	6.57	7.92	7.76	8.61	.73	0.43
Child Behavior Checklist								
Support	36.09	23.04	26.13	18.28	25.74	21.48	.46	10.15***
Cognitive	40.90	20.81	26.48	21.32	25.43	25.23	.66	.37
Child Sexual Behavior Inventory								
Support	6.39	5.23	3.74	4.93	3.91	5.39	.47	12.70***
Cognitive	9.67	5.67	5.48	4.00	7.52	6.62	.74	.90
What If Situations Test								
Support	15.04	8.17	13.91	7.32	15.22	6.94	.14	1.91
Cognitive	11.05	8.24	15.29	6.07	14.24	6.91	-.51	4.81*

NOTE: $n = 23$ for support group; $n = 21$ for cognitive group. MANOVA effect = Time / Time \times Group, $F(2, 41)$.

* $p < .05$. ** $p < .01$. *** $p < .001$.

scores) than did children who received supportive therapy.

The magnitudes of the pretest and posttest ESs for 8 of the 11 outcome measures were greater for the mothers and children who received cognitive behavioral therapy than for the mothers and children who were treated with supportive therapy. In fact, based on Cohen's (1988) guidelines for estimating the clinical magnitudes of ESs, the therapeutic changes described by the mothers who received cognitive behavioral therapy were large ($ES \geq .80$) with respect to the SCL-90-R, IES-I, and PERQ as opposed to the small ($ES < .50$) to moderate ($ES = .51-.79$) gains on those same instruments as reported by the mothers and children who received supportive therapy.

The parents in both groups were asked at posttest to rate how satisfied they were with the therapy that they had received. The mean therapy satisfaction

score for the 23 clients who received supportive therapy was 51.52 ($SD = 10.40$), and the mean therapy satisfaction score for the 21 clients who received cognitive behavioral therapy was 63.52 ($SD = 7.81$). The clients who participated in the cognitive behavioral group were more satisfied with their type of therapy than those who participated in the supportive therapy group, $t(42) = 4.30, p < .001$.

We wished to ascertain whether the parents had contacted each other after the groups had ended and/or if they had obtained additional therapy assistance for their children during the follow-up phase. Because the support group environment was more likely to encourage members to bond and seek support from one another, we hypothesized that these members would be more likely to maintain contact as compared to participants in the cognitive behavioral groups. When asked if they had contacted any other

group members at the 3-month follow-up, 6 (14%) of the 23 supportive group members had, whereas none of the 20 cognitive behavioral group members who responded had, $\chi^2(1, n = 43) = 4.09, p < .05$. With respect to obtaining additional therapy assistance for their children during the follow-up period, 8 of the 24 supportive group members had, whereas only 2 of the 20 cognitive behavioral group members had obtained additional therapy, $\chi^2(1, N = 44) = 3.06, p < .10$.

DISCUSSION

The present findings suggest that in the aftermath of child sexual abuse, young children and their nonoffending mothers may benefit from participation in group therapy, whether the group therapy is cognitive/behavioral or supportive in format. However, the ESs of the changes for the cognitive behavioral groups were generally larger, thus indicating superior outcomes for cognitive behavioral group therapy as compared to supportive group therapy.

More specifically, at posttreatment, mothers in the cognitive behavioral group reported fewer intrusive thoughts about their children's sexual abuse and fewer negative parental emotional reactions with respect to their children's sexual abuse. This is an important finding because parental distress has been shown to be significantly associated with children's postabuse adjustment (Cohen & Mannarino, 1996a). The differences in topics addressed in the groups may offer a possible explanation for why, as compared to the cognitive behavioral group members, the supportive group members demonstrated significantly less improvement with respect to abuse-specific distress. The cognitive behavioral group members were encouraged to participate in specific and detailed discussions regarding their children's sexual abuse experiences and related thoughts and feelings. These discussions sought to reduce parents' anxiety levels and dysfunctional thoughts regarding their children's sexual abuse. Supportive group members, on the other hand, did not generally engage in discussions focusing on the specific details of their children's abuse but rather focused on a wider range of issues affecting their general functioning. It should be noted, however, that due to their young age and the group setting, children were not encouraged to engage in detailed discussions about their abusive experiences in either of the group types. This may explain why the children in the cognitive behaviorally oriented group did not exhibit significantly greater reductions in PTSD symptoms as compared to children in the educational supportive group. On the other hand, the results demonstrated that children in

both types of groups exhibited significant PTSD symptom improvements over time, perhaps suggesting that structured gradual exposure may not be a critical ingredient of therapy for very young, mildly symptomatic children.

At the 3-month follow-up, the overall clinical improvements displayed by participants in both types of groups were sustained. However, parents in the supportive group showed additional improvement during the follow-up evaluation in terms of parental emotional reactions. This finding may be a delayed benefit of participation in the supportive group that may reflect the value of ongoing contact among some of the support group members. However, it may also reflect a trend in the data indicating a greater likelihood for support group parents to get additional individual therapy assistance for their children during the follow-up phase. This may have been due to the significantly lower treatment satisfaction ratings reported by supportive group members as compared to cognitive behavioral group members.

With respect to the children's outcomes, only one measure showed a significant group by time interaction. Children participating in the cognitive behavioral groups showed greater improvement in their knowledge and retention of body safety skills as compared to supportive group members. Because children in all groups received the same information about body safety, the differential outcomes may be attributable to the different means of delivering the information to the two groups. Supportive group therapists presented the body safety information to the children in a didactic manner, reading and using activity page materials. The cognitive behavioral group therapists presented the same information using interactive behavioral methods, including encouraging the children to participate in behavior rehearsals and role plays, and actively involving the parents in the practicing of body safety skills with their children. Thus, the present results are consistent with previous findings that have indicated that behavior rehearsal and parental involvement lead to greater personal safety skill acquisition and utilization in nonabused children who have participated in primary prevention programs (Finkelhor, Asdigian, & Dziuba-Leatherman, 1995; Wurtele, Marrs, & Miller-Perrin, 1987).

Although the findings of this investigation are valuable, the study has a number of limitations. For example, it should be noted that the majority of children in this sample did not demonstrate clinically significant behavior problems at pretreatment, making the detection of differential treatment effects difficult. Similar ceiling and/or floor effects may also explain

the lack of differential treatment effects for the parents as well. For example, many of the parents reported using effective parenting skills on the PPQ at the pretreatment assessment, making further differential improvement unlikely. In addition, the 3-month follow-up was not long enough to examine the long-term maintenance of the treatment effects or the preventive potential of these interventions. Given the data that document the deleterious effects of child sexual abuse on adult functioning, it is important to determine whether early interventions, such as those studied here, can prevent the development of psychosocial difficulties in later childhood, adolescence, and adulthood. It should also be noted that the support group program did not include joint parent-child work, leaving open the possibility that the differential effects observed may be a function of that structural difference between the groups. Also, perhaps, the most significant limitation of this investigation is the lack of a no treatment control or waiting list condition. Thus, the significant improvements observed across both groups may be a function of time rather than the specific effects of the interventions. This may be particularly true with respect to PTSD because these symptoms have been shown to diminish with time with adult rape victims (Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992). However, it should be noted that several studies involving children who had been sexually abused showed no change in children's symptoms during brief waiting list periods (Deblinger, McLeer, & Henry, 1990; Stauffer & Deblinger, 1996). In addition, the findings of a recent longitudinal study suggested that in a community with very limited access to therapeutic intervention, children who had been sexually abused seemed to show no symptom improvement and an increase in their reported range of problems over a 2-year follow-up period (Calam, Horne, Glasgow, & Cox, 1998).

In sum, the present findings lend additional support to the growing body of evidence suggesting cognitive behavioral therapy as an effective means of addressing the specific concerns and distress exhibited by children and parents in the aftermath of child sexual abuse. The therapeutic value of group therapy in providing individuals with an opportunity to give and receive support from others facing very similar problems has been well documented. The present findings suggest that creating a therapy environment for parents to talk specifically about their children's experiences of sexual abuse with others may be particularly valuable because many individuals are uncomfortable talking about this issue even with their closest confidantes. The results of this investigation also doc-

ument the importance of using role plays and involving parents in the teaching of personal safety skills to children who have been abused. These results are of particular importance because it is well documented that individuals who have experienced abuse in childhood are at significantly higher risk for future victimization (Gidycz, Hanson, & Layman, 1995; Sanders & Moore, 1999). Moreover, with each additional assaultive experience, the risk of suffering deleterious trauma symptoms into adulthood increases (Arata, 1999; Breslau, Chilcoat, Kessler, & Davis, 1999). Thus, these results suggest important avenues for reducing the risk of revictimization among children who have been sexually abused.

Future treatment outcome research should continue to identify therapy ingredients that are critical to successful outcomes. In addition, it is important to develop, identify, and utilize psychometrically sound instruments designed for this young population. Finally, if we are to assist our overwhelmed child welfare system in its efforts to utilize its limited resources as effectively as possible, we should incorporate methods for disseminating information regarding empirically validated interventions into our research plans.

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Intrafamilial Child Sexual Abuse: Predictors of Postdisclosure Maternal Belief and Protective Action

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The two purposes of this study were to determine the percentage of nonoffending, biological mothers who were concordant for belief and protection of their sexually abused children and to examine maternal, child, and situational characteristics that predict such concordance. Data were collected on a sample of 435 mothers. Descriptive statistics and logistic regression were utilized to identify the proportion and the predictors of maternal belief and protective action. Findings indicated that mothers were more likely to believe and protect when they postponed the birth of their first child until reaching adulthood, when they were not a current sexual partner of the offender, when they did not have knowledge of the sexual abuse prior to the child's disclosure, and when the victim did not exhibit sexualized behavior. These findings have the potential to enhance the efficacy of child welfare interventions by underscoring the importance of maternal belief and protection. Further empirical study is recommended to investigate predictors of ambivalent maternal responses to her child's sexual victimization.

The child sexual abuse literature suggests that the level of maternal support provided by nonoffending mothers appears to be an important protective factor in promoting the therapeutic recovery of their sexually abused children (Celano, Hazzard, Webb, & McCall, 1996; Deblinger, Stauffer, & Landsberg, 1994; deYoung, 1994; Everson, Hunter, Runyan, & Edelson, 1989; Green, Coupe, Fernandez, & Stevens, 1995; Timmons-Mitchell, Chandler-Holtz, & Semple, 1996). Empirical studies also indicate that sexually

abused children who function at a higher level after disclosure are those who have experienced emotional support from one or both parents (Beitchman et al., 1992; Deblinger, Hathaway, Lippmann, & Steer, 1993; Runyan, Hunter, & Everson, 1992). During the past two decades, clinicians have recognized that nonoffending mothers provide varying degrees of maternal support after their children's disclosure of intrafamilial sexual abuse. Despite recent attention, there are few empirical investigations of the characteristics that predict two important components of maternal support: maternal belief and protective action. The purposes of this study were (a) to determine the proportion of biological mothers who both believed and protected their sexually abused children once the sexual abuse had been disclosed and (b) to identify maternal, child, and situational predictors of mothers who were concordant for believing and taking protective action.

Clinical Significance of Maternal Belief and Protection

The clinical literature on the behavioral, psychological, and emotional functioning of sexually victimized children reveals that the nonoffending mother's reaction, behavior, and level of support are among the most significant predictors of the child's safety, recovery, and subsequent mental health functioning

Authors' Note: This study was funded in part by a predoctoral fellowship from DHHS, Children's Bureau, Office of Child Abuse and Neglect, Grant #90-CA-1573/01. Requests for reprints should be sent to Dr. Denise Pintello, University of Maryland Baltimore School of Social Work, 525 W. Redwood Street, Baltimore, MD 21201.

(Everson et al., 1989; Gomes-Schwartz, Horowitz, & Cardarelli, 1990; Hiebert-Murphy, 1998; Runyan et al., 1992; Timmons-Mitchell et al., 1997). In contrast, the absence of maternal support appears to not only increase anxiety, behavioral problems, and depression but also impede emotional functioning (Green, 1993; Manion et al., 1996; Newberger, Gremy, Waternaux, & Newberger, 1993). Children who do not perceive high levels of maternal support are at greater risk for recanting the disclosure, even though there is convincing evidence that the sexual abuse occurred (Berliner & Elliott, 1996). Moreover, the clinical literature suggests that mental health and child welfare professionals develop assessments and out-of-home placement decisions based primarily on the level of maternal belief and protective action demonstrated by the nonoffending mother (Cross, De Vos, & Whitcomb, 1994; Heriot, 1991; Hunter, Coulter, Runyan, & Everson, 1990; Leifer, Shapiro, & Kassem, 1993; Pellegrin & Wagner, 1990). Furthermore, in situations characterized by lower levels of maternal belief, protective action, and emotional support, a child may be removed by child protective services (CPS) and placed in an out-of-home setting. This traumatic separation is often compounded by the frequent instability of foster or kinship care placements, repeated interaction with juvenile or criminal courts, relocation to new schools, and leaving long-term friendships and familiar neighborhoods. Despite these important implications, there has been little research that focuses specifically on maternal belief, protective action, or their concordance.

Prior Research on Maternal Belief and Protective Action

Prior to 1985, little research had been conducted on postdisclosure maternal belief or protective action (Heriot, 1996; Myer, 1985; Tamraz, 1996). Since then, research has focused on many facets of nonoffending mothers, including maternal behavior (Carter, 1999; Leifer et al., 1993; Pellegrin & Wagner, 1990; Stauffer & Deblinger, 1996), maternal distress (Deblinger et al., 1993; Hiebert-Murphy, 1998; Hubbard, 1989; Newberger et al., 1993; Timmons-Mitchell et al., 1996), maternal responsiveness (Deblinger et al., 1994; DeJong, 1988; Howard, 1993; Salt, Myer, Coleman, & Sauzier, 1990), and maternal support (Cross et al., 1994; Esparza, 1993; Everson et al., 1989; Runyan et al., 1992; Wright et al., 1998). These studies primarily examined other variables and included findings on belief and/or protective action. Moreover, only six studies examined intrafamilial sexual abuse, defining the offender as any relative or father figure, including biological father, stepfather, and

current partner of the nonoffending mother (deYoung, 1994; Faller, 1988; Heriot, 1991; Hubbard, 1989; Lovett, 1995; Sirles & Franke, 1989). To date, however, only two studies have purposely investigated maternal belief (deYoung, 1994; Sirles & Franke, 1989), and only three studies have specifically addressed maternal protective action (Faller, 1988; Heriot, 1991; Myer, 1985). Even more striking is that no studies have been conducted that focused on (a) determining the proportion of mothers who were concordant for believing and protecting their sexually abused children and (b) identifying the characteristics that are predictive of mothers who both believe and take protective action following their children's disclosure of intrafamilial sexual abuse.

Of the two studies that have purposely focused on maternal belief, deYoung's (1994) research explored immediate maternal reactions to paternal incest and found that 65% of the mothers from her CPS sample believed their sexually abused children. Sirles and Franke (1989) detected a higher proportion of maternal belief among their 193 mothers from a mental health sample. Their findings revealed that 78% of the mothers believed their sexually abused children. These authors also identified five characteristics that were predictive of maternal belief. Mothers were most likely to believe when they were not the current sexual partner of the offender, when the child sexual abuse victim was less than 12, when the child victim did not have a history of physical abuse, when the sexual abuse did not include intercourse, and when the offender did not abuse substances.

Of the three investigations that examined maternal protective action, Faller's 1988 study indicated that slightly less than one third of the 171 mothers from her sample were "somewhat protective." Myer (1985) found that more than half of the 43 mothers were at least somewhat protective. And, finally, Heriot's (1991) study of 118 biological, nonoffending mothers from a CPS population revealed that 56% were protective.

With respect to predictors of protective action, past researchers have identified five important characteristics. Three studies (Faller, 1988; Heriot, 1991; Salt et al., 1990) revealed that mothers who were current sexual partners of the offender were more likely to be "unprotective." Heriot's (1991) findings showed that "perpetrator identity" was significantly associated with maternal protection, suggesting that when the offender was the mother's partner, "she was less likely to separate herself and her child from him" (p. 135). The Salt et al. study (1990) indicated that mothers were the least protective when the offender was a stepfather or a current sexual partner. Two studies

(Heriot, 1991; Leifer et al., 1993) found prior history of maternal substance abuse to be a predictor. Both researchers found that mothers with no prior history of substance abuse were more likely to protect their children. The third predictor was age of the child. Heriot and Salt et al. found that younger children (younger than adolescence) were more likely to be protected by their mothers. The fourth predictor was severity of sexual abuse. Heriot found that those children who had been subjected to intercourse were less likely to be protected than those who had been subjected to nonintercourse forms of sexual abuse. And last, the fifth predictor was gender of victim. Salt and colleagues found that female victims received less maternal protective action than male victims.

In conclusion, knowledge about (a) the concordance between maternal belief and maternal protective action toward the sexually abused child after disclosure and (b) the predictors of the concordance between belief and protective action is in the very earliest stage of development. To date, clinical and empirical studies regarding maternal behavior in the face of child sexual abuse disclosure have focused on objectives other than the investigation of the concordance of maternal belief and protective action. This study sought to build a knowledge base about maternal belief and protective action toward sexually abused children by answering two questions:

1. What proportion of biological, nonoffending mothers is concordant for maternal belief of and protective action toward the sexually abused child once the sexual abuse has been disclosed?
2. What maternal, child, and situational characteristics are predictive of concordance between maternal belief and protective action toward the sexually abused child?

METHOD

Sample and Sample Selection

This study was conducted in a suburban county in the mid-Atlantic region and included 435 biological, nonoffending mothers of a sexually abused child(ren) who were referred to a CPS Sexual Abuse Unit during the 6-year period 1989 through 1995. Four criteria drove the selection of mothers for the study: (a) The case head was the biological mother and resided with her sexually abused child at the time of disclosure, (b) the child sexual abuse was intrafamilial, (c) the CPS sexual abuse investigation was substantiated, and (d) the risk assessment score calculated by the caseworker indicated that the case was at moderate, significant, or high risk for recur-

rence. Intrafamilial child sexual abuse was defined as any sexual molestation or exploitation of a person younger than age 18 perpetrated by a parent, relative, or household or family member.

There were 565 cases referred during the 6-year period; however, 130 cases did not meet the risk assessment selection criteria. Seventeen cases involved an extrafamilial perpetrator, 54 cases involved primary caregivers other than the biological mother (i.e., grandmother, stepmother, aunt), and 5 cases had their substantiated findings reversed by a court of appeals process. Thirty-five CPS case records could not be located, and 19 records were missing data concerning the primary variables of maternal belief and/or protective action. This resulted in a total sample of 435 mothers.

Sample description. Maternal ethnicity was 59.1% African American, 29.7% Caucasian, and 11.1% Asian or Hispanic. These percentages reflect the county census proportions of these groups. At the time of the sexual abuse disclosure, the mothers' ranged in age from 16 to 50 years, with an average age of 32.79 ($SD \pm 6.03$). Three out of five biological mothers in this sample (60.1%) were 20 years old or younger when they first gave birth ($M = 20.49$; $SD \pm 4.64$). More than half of the mothers were in a current sexual relationship with the offender (51.3%). More than one third of the mothers had prior knowledge of the sexual abuse before the child's disclosure (38.4%).

Measurement Procedures

Data were collected from two sources: the CPS case records and the CPS computerized database file for each participant mother. A Data Abstraction Form was developed and information on 109 items was collected. The data for all participants were abstracted by one reviewer. A second reviewer abstracted data from the case records of 52 (12%) randomly selected cases. Interrater reliability between the two reviewers was at 94%.

Measures

Criterion measure. For purposes of this study, a mother who both believed and took protective action was one who believed her child's disclosure and took action to protect her child from any unauthorized visual, verbal, or written contact with the sexual offender. Information on belief and protective action was gathered from the case record written by the CPS caseworker. Based on the constraints associated with case record abstraction, belief and protection was coded as a dichotomous variable, even though, conceptually, maternal belief and protective action falls

on a continuum and can vary over time. An example of a statement written by a CPS caseworker that indicated a mother both believed and protected read as follows: "Mother believes child's allegations and has alerted school personnel to not allow father to pick-up his children from school." Whereas, a statement that indicated maternal nonbelief and nonprotection read, "Mother refused to believe her daughter and violated the service agreement by bringing the child to jail to visit her stepfather" (the offender). In this study, maternal belief and protective action was measured within a 60-day time frame after the child's disclosure, which coincided with the closure of the CPS investigation.

For purposes of the analyses, a dichotomous variable, identified as belief and protection, was created such that mothers who both believed and protected were coded 1, whereas those who neither believed nor protected, believed but did not protect, or did not believe but did protect were all coded 0.

Predictor measures. A total of 20 predictors was tested to examine their independent effect on the criterion variable, belief and protection. Data on these variables were consistently collected by CPS caseworkers through interviews with victims, family members, and other involved parties. Information about these predictors was abstracted from case records and database files of the mothers. Seven maternal, 8 child, and 5 situational predictors were examined. The 7 maternal predictors included maternal age at first birth, marital status (married coded 1, separated/divorced coded 0), employment status, a reported history of maternal substance abuse, in a current sexual relationship with the offender, and prior maternal knowledge of the sexual abuse before the CPS report. The 8 child predictors included victim age at disclosure, gender, prior history of child physical abuse and/or sexual abuse and/or neglect, behavioral problems, academic problems, and sexualized behavior. The 5 situational predictors included sexual abuse involved penetration, frequency of sexual abuse incidents (11 or more incidents coded 1 and 10 or less coded 0), duration of sexual abuse, offender substance abuse status, and perpetrator admission of sexual victimization of child. Two of the 20 predictors were continuous: victim age at disclosure and the duration of sexual abuse. The remaining 18 predictors were dichotomous, coded 0 and 1.

Analyses

Question 1: What proportion of mothers is concordant for maternal belief of and protective action toward the sexually abused child once the sexual abuse

has been disclosed? Descriptive statistics and percentages were used to identify the proportion of mothers who were concordant for believing and taking protective action, concordant for not believing and not taking protective action, and discordant or ambivalent regarding the two behaviors (i.e., believed but did not protect or did not believe but did protect).

Question 2: What maternal, child, and situational characteristics are predictive of concordance between maternal belief and protective action toward the sexually abused child? Logistic regression analyses were used to address this question. Logistic regression is the appropriate statistical test given this study's dichotomous criterion variable and multiple predictors measured at nominal and interval levels (Menard, 1995). These analyses were used to identify variables that added significantly to the ability to correctly predict which mothers would be most likely to believe and protect their abused children. Logistic regression was used to estimate the degree to which a change in the category status of a predictor variable (e.g., male versus female victim) resulted in a change in the odds that a mother would believe and protect her child. This study presented the odds ratios, which demonstrated the probability of an event occurring, in comparison to an event not occurring.

A total of four simultaneous entry analyses was conducted. The first analysis included the seven maternal predictors, the second analysis the eight child predictors, and the third analysis the five situational predictors. The fourth and final analyses included those predictors from the first three analyses that were statistically significant. Each model was assessed for the presence of influential data points and outliers as well as violations of the assumptions of logistic regression analysis using Cook's Distance, studentized residuals, and normalized residuals. Throughout the analyses, no outliers nor influential data points were detected. Missing data were detected for four variables. They included maternal and offender history of substance abuse use (14% and 17%, respectively), duration of sexual abuse (15%), and frequency of child sexual abuse (11%). No imputation of missing data was performed, and consequently, sample sizes for the regression analyses ranged from 309 to 379 participants.

FINDINGS

Question 1: What proportion of mothers is concordant for maternal belief of and protective action toward the sexually abused child once the sexual abuse has been disclosed? Of the mothers, 41.8% both be-

lieved and took protective action toward their sexually abused children; 30.8% neither believed nor protected their sexually abused children, whereas the remaining 27.3% included mothers who responded ambivalently by believing yet not protecting (13.3%) or not believing but taking protective action (14%).

Question 2: What maternal, child, and situational characteristics are predictive of concordance between maternal belief and protective action toward the sexually abused child? The first three logistic regression analyses identified nine significant predictors. Of the seven maternal predictors, five were found to be significantly associated with maternal belief and protective action (see Table 1). Mothers who postponed giving birth to their first child until reaching adulthood were 2.3 times more likely to be concordant for belief and protection. Mothers who were currently divorced or separated were 2.9 times more likely to be concordant. Mothers who did not report a history of substance abuse were 3.4 times more likely to be concordant than mothers who did have a history of substance abuse. Mothers who were not in a current sexual relationship with the offender were 4.3 times more likely to believe and protect their sexually abused children. Finally, mothers who had no knowledge of the sexual abuse prior to the CPS report were 4.9 times more likely to be concordant for belief and protection than mothers who knew about the sexual abuse before the child's disclosure to CPS professionals.

Of the eight child predictors from the second analysis, three were significant (see Table 2). Results indicated that for each additional year of the child's age, the mother was 1.1 times less likely to believe and protect. Male sexual abuse victims were 2.2 times more likely to be believed and protected by their mothers than female victims. Mothers were 1.9 times more likely to believe and protect when the victimized child did not engage in sexualized behaviors.

The third analysis examined five situational predictors (see Table 3). The single situational predictor associated with belief and protection was the duration of the sexual abuse. Results revealed that for every additional month of duration, mothers were 1.01 times less likely to believe and protect.

The final logistic regression analysis was conducted to determine whether any of the nine significant predictors from the above three analyses retained their significance as overall predictors of the concordance between maternal belief and protective action. Although the earlier analyses identified five additional significant predictors (mothers who were separated or divorced, did not report a history of substance abuse, the sex abuse victims were not

TABLE 1: Findings From the First Logistic Regression Analysis of Concordant Maternal Belief and Protective Action on Six Maternal Predictors

<i>Maternal Predictor</i>	<i>Exp(B)</i>
Postponed first birth until reaching adulthood	2.3**
Marital status	
Married	1.8
Separated/divorced	2.8*
Employed	1.8
No reported history of substance abuse	3.4*
Not in sexual relationship with offender	4.3***
No prior knowledge of child sexual abuse	4.9***

NOTE: *Exp(B)* reflects the odds ratio.

* $p < .05$. ** $p < .01$. *** $p < .0005$.

TABLE 2: Findings From the Second Logistic Regression Analysis of Concordant Maternal Belief and Protective Action on Eight Child Predictors

<i>Child Predictor</i>	<i>Exp(B)</i>
Age of child at disclosure	0.9**
Gender (male victim)	2.3*
Child protective services history	
Physical abuse	0.6
Neglect	0.8
Sexual abuse	0.7
Symptoms	
Behavioral problems	1.6
Academic problems	0.6
Sexualized behaviors	1.9*

NOTE: *Exp(B)* reflects the odds ratio.

* $p < .05$. ** $p < .001$.

TABLE 3: Findings From the Third Logistic Regression Analysis of Concordant Maternal Belief and Protective Action on Five Situational Predictors

<i>Situational Predictor</i>	<i>Exp(B)</i>
Severity of child sexual abuse—penetration	1.3
Frequency of child sexual abuse—11 or more incidents	1.4
Duration of child sexual abuse—number of months	1.01*
Offender admission	1.5
Offender substance abuse	0.8

NOTE: *Exp(B)* reflects the odds ratio.

* $p < .05$.

adolescents, the victims were male, and the children endured a shorter duration of sex abuse), they did not remain significant in the final model.

In summary, four predictors remained significant for maternal belief and protective action. Findings (see Table 4) indicated that one child and three maternal predictors were significant. Mothers who

TABLE 4: Findings From the Final Logistic Regression of Concordant Maternal Belief and Protective Action on Nine Significant Predictors From Prior Analyses

Predictor	Exp(B)
Maternal	
Postponed first birth until reaching adulthood	3.2****
Marital status—separated or divorced	2.0
No reported history of substance abuse	1.9
Not in sexual relationship with offender	2.8**
Had no prior knowledge of sexual abuse	5.8****
Child	
Age at disclosure	0.9
Gender (male)	0.9
Did not exhibit sexualized behaviors	2.2*
Situational	
Duration of sexual abuse—11 months or longer	1.0

NOTE: Exp(B) reflects the odds ratio.

* $p < .05$. ** $p < .01$. **** $p < .0005$.

gave birth to their first child during adulthood were 3.2 times more likely to believe and protect. Mothers who were not in a current sexual relationship with the offender were 2.8 times more likely to believe and protect. Mothers who had knowledge of the sexual abuse before the initial CPS report were 5.8 times less likely to believe and take protective action. Finally, mothers whose victimized children did not exhibit sexualized behavior were 2.2 times more likely to believe and protect.

DISCUSSION

This study focused on determining the proportion of nonoffending mothers of sexually abused children who were concordant for believing and protecting their victimized children after the disclosure of the sexual abuse and identifying predictors of concordance. Before discussing the findings, it is important to address the possible effects of three study limitations on the ability to interpret results. Measurement error is the first limitation. Findings from this study may be compromised by the use of case records as a source of data for two reasons: missing and inaccurately recorded information in the case records due to either the inexperience of new CPS caseworkers or workload overburden on the part of experienced caseworkers. Inability to generalize study findings to other populations of nonoffending mothers is the second limitation.

This sample was composed of families where intrafamilial child sexual abuse occurred, the abuse was substantiated, the nonoffending parent was the biological mother, and the cases were found to be at moderate to high risk for recurrence. Consequently,

this selection process developed a sample that was not representative of low-risk cases. Although inclusion of these low-risk cases may have yielded a higher proportion of maternal belief and protective action, a number of other factors may have influenced the lower risk score, including inaccurate decision making by caseworkers during the risk assessment phase. However, this sample was indicative of CPS families who required mandated in-home services. Also, findings may not be generalizable to samples gathered from rural and urban CPS agencies due to the unique characteristics of the suburban population in the county in which this study took place. Third, causal inferences cannot be inferred from the findings because the design was cross-sectional in nature.

Overall, 41.8% of the mothers responded supportively by believing and protecting their sexually abused children, representing the largest cohort in this study. Furthermore, an additional 27.3% believed and/or took protective action. These findings are consistent with recent studies that reported maternal belief ranging from 65% to 87% and maternal protection ranging from 29% to 64% (Deblinger et al., 1993; DeJong, 1988; deYoung, 1994; Elbow & Mayfield, 1991; Heriot, 1991; Leifer et al., 1993; Lovett, 1995; Pellegrin & Wagner, 1990; Sirls & Franke, 1989; Stauffer & Deblinger, 1996; Wilson, 1995; Wright et al., 1998). These results suggest that the majority of the mothers do respond positively by believing and taking protective action.

Traditionally, a common assumption across social services, mental health, law enforcement, and juvenile justice professions about nonoffending mothers served by CPS is that the majority of mothers do not believe and protect. Thus, our documentation of the sizable proportion of mothers who did believe and take protective action contradicts the conventional assumption that the majority of mothers are resistant, culpable, and unconcerned about the safety of their children.

Four important findings were generated about the predictors of concordant maternal belief and protective action. The first finding associated with maternal belief and protective action involved the mother's age at first birth. Results revealed that mothers who postponed the birth of their first child until reaching adulthood were more likely to be concordant than mothers who gave birth during adolescence. Existing research suggests that sexually active females who experience motherhood before the age of 21 may not be as emotionally prepared to parent and may be less developmentally mature compared to mothers who give birth to their first child at a later age (Zuravin, 1988). Extrinsically, socioeconomic consequences

such as unemployment, underemployment, and low educational achievement may limit opportunities for adolescent mothers to experience success in various arenas. Alternately, women who postpone motherhood until accomplishing educational, employment, or interpersonal milestones may be more developmentally mature. Hence, these mothers may have already cultivated a range of coping skills to respond supportively to the traumatic event of their children's disclosure of sexual abuse. The results of this study suggest that professionals not only consider the current age of the mother during assessment but also explore the maternal age at first birth. Mothers who gave birth to their first child at a younger age may have special needs concerning child rearing, problem solving, negotiating macro systems, assertiveness, financial stressors, and family decision making. Skill building in these areas may enhance their sense of control and power and, hopefully, increase the likelihood of maternal belief and protective action.

The second significant finding was the type of relationship between mother and the offender. Analysis revealed that mothers were more likely to believe and protect their sexually abused children when the offender was not their current sexual partner. Although there is no previous literature that identifies predictors of concordant maternal belief and protective action, this finding is supported by prior research on maternal protection (Deblinger et al., 1993; Faller, 1988; Heriot, 1991; Salt et al., 1990). Study results suggest that a mother who is not in a sexual relationship with the offender may experience less conflict in reconciling her maternal role to the child and her obligation to the offender. Although the mother is confronted with the traumatic event of disclosure, she is not forced to decide allegiance or loyalty issues in choosing between the child and the offender like the mother who does have an intimate relationship with the perpetrator. In contrast, mothers who are in sexual relationships with the offender may initially struggle with the uncertainty of who is telling the truth and who to believe (Hubbard, 1989; Myer, 1985; Salt et al., 1990; Sirles & Franke, 1989). Because mothers who are in a relationship with the offender frequently share financial histories and intimate relationships, the level of grief and loss is more extensive. These factors may explain why mothers who are not in a current sexual partnership with the offender are more likely to believe and protect their sexually abused children. Based on these study results, clinical assessment of the mother-child and mother-offender relationships may yield important information about factors that influence the mother's allegiance to both family members. Specific therapeutic

interventions designed to enhance the mother-child bond should be considered.

The third significant result indicated that mothers were more likely to believe and take protective action when they did not have prior knowledge that their children had been sexually abused. No other studies have investigated this predictor. Mothers who did not know of the sexual abuse before the CPS report and were not previously invested in keeping the sexual abuse a private family matter may be more responsive to public intervention. In addition, they may be less likely to experience feelings of guilt, fear, failure, or responsibility than those mothers who kept the abuse a secret and/or were unable to stop it. On the other hand, mothers who learned about the child sexual abuse before the CPS disclosure may have been traumatized by this discovery. A mother who experienced psychological distress and grief symptomatology may have encountered difficulty in coping with the crisis, which could have immobilized her ability to cognitively and objectively integrate the information, resulting in denial and, ultimately, nonbelief and nonprotection. Moreover, when a child discloses and a CPS report is investigated, a mother may be distressed that the child chose to disclose to another adult. She may also feel embarrassed that a private family matter has now become public and distraught that she had somehow failed and was not able to stop the sexual abuse of her child. All of these factors, coupled with potential financial difficulties, may inhibit her ability to cope with the crisis and contribute to nonbelief and nonprotection. Based on these results, it is recommended that clinical assessment include a comprehensive exploration of the mother's reaction to the initial discovery of the sexual abuse. Special consideration should be given to evaluating whether certain events, such as the child recanting, or family pressure to discredit the child creates possible barriers to maternal belief and protective action.

The fourth finding revealed that mothers are more likely to believe and protect when the victimized child does not exhibit sexualized behaviors. This study was the first to examine this predictor. One possible explanation for reduced maternal belief and protective action is that the mother, who is likely to be traumatized by the child's disclosure, may have an inaccurate viewpoint of causality. It is highly likely that the child sexual abuse occurred first, followed by the sexualized behavior. A mother may deduce the opposite and presume that because the child engaged in sexualized behaviors, the child invited or initiated the sexual abuse. As a result, the mother may experience difficulty examining the underlying cause of the child's problematic behaviors and may be less likely to

believe and protect. Moreover, some mothers may come to the conclusion that because their children acted out sexually, they are different, are "bad," engaged in embarrassing behaviors, and are therefore undeserving of maternal belief and protection. In contrast, children who do not engage in sexualized behaviors are viewed more credibly, as more deserving of being believed and protected. These findings suggest that mothers of children who are exhibiting sexualized behaviors may benefit from clinical and case management interventions. Caseworkers must help the mother understand why her child engages in these activities and, most important, should teach the mother specific strategies to reduce these behaviors.

Recommendations for Future Research

Current knowledge about maternal belief and protective action in the child sexual abuse field remains particularly sparse. The primary source of data for intrafamilial child sexual abuse is child welfare agencies, who rarely collect standardized data on important variables, such as the level of maternal support provided to the child, emotional attachment to the child, maternal warmth, level of child blaming, and maternal rejection. Future efforts to examine data on these variables will greatly enhance our knowledge of nonoffending mothers. Secondly, an existing concern in the literature involves the inconsistent measurement of maternal belief and protective action. Although conceptually these constructs are most accurately measured within a continuum that represents the various degrees of maternal responses, researchers and child welfare agencies do not uniformly collect data on belief and protection, which has contributed to the lack of research in this area. Recommendations for future research would include clear definitions and measurement of the constructs of maternal belief and protection as continuous variables. Third, additional research is needed to study other combinations of maternal belief and protective action. To date, no study has examined these two groups of ambivalent mothers: those who believed, yet did not protect, and mothers who did not believe, yet did protect. Finally, because studies have yet to examine the impact of maternal belief and protective action on child sexual abuse recurrence, it is recommended that future research focus on this issue.

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A Three-Generational Study Comparing the Families of Supportive and Unsupportive Mothers of Sexually Abused Children

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This three-generational study investigated family histories of attachment relationships and abusive experiences as well as current functioning of family members that differentiate supportive from unsupportive mothers of sexually abused children. Interviews and standardized adult and child measures were administered to a sample, including (a) 99 nonoffending African American mothers and their children aged 4 to 12 years, of whom 61 mothers were classified as supportive and 38 were classified as unsupportive, and (b) 52 grandmothers, of whom 33 were the mothers of supportive mothers and 19 were the mothers of unsupportive mothers. The authors' findings indicate that a history of conflicted and/or disrupted attachment relationships between grandmother and mother, and mother and child, and less support provided by the grandmother to the child characterize families in which sexually abused children do not receive maternal support. Also, nonsupportive mothers showed more substance abuse, criminal behaviors, and problematic relationships with male partners.

This three-generational study investigates family histories of both attachment relationships and abusive relationships as well as the current functioning of family members that differentiate supportive from unsupportive mothers of sexually abused children.

The Importance of Maternal Support to the Sexually Abused Child

Recent research has documented that the mother's belief in the sexually abused child and ability to take supportive action play a key role in the child's ability to resolve the abusive experience. Abused children who receive maternal support show less psychological symptomatology (Adams-Tucker, 1982; Conte & Berliner, 1988; Deblinger, Steer, & Lippman, 1999; Everson, Hunter, Runyan, Edelson, & Coulter, 1989; Feiring, Taska, & Lewis, 1998b; Fromuth, 1986; E. R. Gold, 1986; Goodwin, McCarthy, & DiVasto, 1981; Hazzard, Celano, Gould, Lawry, & Webb, 1995; Howard, 1993; Johnson & Kenkel, 1991; Leifer, Shapiro, Martone, & Kassem, 1991; Morrison & Clavenna-Valleroy, 1998; Sirles & Franke, 1989; Spaccarelli & Fuchs, 1997; Tufts, 1984; Waterman, Kelly, McCord, & Oliveri, 1993; Wyatt & Mickey, 1987). A lack of maternal support is also associated with the child's nondisclosure of abuse (Elliott & Briere, 1994), with the child's removal from the home and placement in foster institutional care (Everson et al., 1989; Leifer,

Authors' Note: This study was funded by the National Center for Child Abuse and Neglect, Grant No. 90CA1565 and Grant No. 90CA1518. We thank Jane Gorman, Ph.D.; Teresa Jacobsen, Ph.D.; and Rosemary Taglia for their contributions to this study and Ruth Smookler for typing the manuscript. Correspondence concerning this article should be addressed to Myra Leifer, Ph.D., Illinois School of Professional Psychology, 20 South Clark Street, Chicago, IL 60603.

Shapiro, & Kassem, 1993; Pellegrin & Wagner, 1990; Tufts, 1984), and with more difficulty coping with the stress of legal involvement (Goodman et al., 1992).

Estimates of the percentage of mothers who provide some form of emotional support to their abused children at the time of disclosure range from 27% to 84% (Adams-Tucker, 1982; Deblinger, Hathaway, Lippmann, & Steer, 1993; Everson et al., 1989; Heriot, 1996; Leifer et al., 1993; Wyatt & Mickey, 1987). Some studies indicate that on discovery of sexual abuse, the majority of mothers believe their children's allegations (Conte & Berliner, 1988; Elliott & Briere, 1994; Heriot, 1996; Pierce & Pierce, 1985; Sirls & Franke, 1989), whereas others report that somewhat less than half of the mothers are supportive (Everson et al., 1989; Leifer et al., 1991). Definitions vary in these studies as to what constitutes maternal support.

Factors Influencing Maternal Support

Several maternal characteristics have been found to be associated with support or rejection of the sexually abused child. A number of studies indicate that maternal substance abuse is associated with a lack of support to the child as well as with more extensive abuse of the child and with more child psychiatric symptomatology (Leifer et al., 1993; Runyan, Gould, & Trost, 1981). There is also evidence that mothers who live with and/or maintain a relationship with the perpetrator tend to be less supportive of the child (Elliott & Briere, 1994; Everson et al., 1989; Faller, 1988; Heriot, 1996; Sirls & Franke, 1989; Tufts, 1984).

Research regarding the association between a maternal history of abuse and subsequent support to the abused child has yielded mixed results. Some studies indicate that the mother's own history of sexual abuse may be associated with her ability to provide support to the child (Faller, 1989; Goodwin et al., 1981; Leifer et al., 1993). In contrast, Deblinger, Stauffer, and Landsberg (1994) reported that mothers with a history of sexual abuse did not differ from mothers having no history of sexual abuse in their responses to the sexual abuse allegations concerning their children.

Unsupportive mothers may have more troubled histories of attachment relationships, more problematic current relationships (Leifer et al., 1993), and a higher rate of domestic violence than do supportive mothers (Deblinger et al., 1993). Discontinuity of family attachment relationships and intergenerational factors may be particularly salient for the African American family (Wilson, 1989). Nationwide, more than 12% of Black children live with their grandparents compared to 5.8% of Hispanic and 3.6% of White children (U.S. Bureau of the Census,

1991). This relatively high proportion reflects, in part, a continuing pattern of coresidence and shared caregiving within the African American community that originated in West African culture and tradition and enabled African American families to adapt to diverse and often stressful external forces (Stack, 1974; Wilson, 1989).

However, research on the impact of coresidence with the grandmother on the child has yielded contradictory findings. Some studies indicate that the grandmothers' involvement in child rearing has positive effects on the quality of the mother-child interaction (Wakschlag, Chase-Lansdale, & Brooks-Gunn, 1996) and on the child's development and is associated with more secure attachment and with more competent long-term achievement and social adaptation (see Wilson, 1989, for a review of this research). There is also evidence that coresidence with grandmothers may have negative consequences on the quality of parenting practices of both mothers and grandmothers (Chase-Lansdale, Brooks-Gunn, & Zamsky, 1994; Spieker & Bensley, 1994; Unger & Cooley, 1992).

Although the grandmother's history of attachment relationships and abusive experience, as well as her current functioning and relationship with her daughter and grandchild, may have an important impact on African American families where the grandchild has been sexually abused, these issues have not been previously studied.

AIMS OF THE STUDY

The aim of this three-generational study was to investigate the differences between families of supportive mothers of sexually abused children and those of unsupportive mothers of sexually abused children in regard to histories of abuse and attachment relationships and current functioning. Several expectations about the association of intergenerational relationships and maternal support were formulated, based on previous research and relevant theory.

In regard to the grandmothers, we expected that the mothers of unsupportive mothers would report more problematic childhood histories (defined as discontinuity of family relationships, insecure attachment relationships, family problems, and abusive experiences) and more problems in their current functioning (including an insecure adult attachment style, abuse as an adult, trauma-related symptomatology, substance abuse, emotional problems, and problems with the law). Finally, we expected these grandmothers to describe more negative relationships with their daughters and grandchildren, to

report providing less caregiving to their grandchildren, to provide less support to their grandchildren in regard to the abuse, and to attribute blame for the abuse to their daughters or grandchildren.

In regard to the mothers, we expected that unsupportive mothers would report more disturbed childhood histories (defined by discontinuous and conflicted attachment relationships, more problems in their families of origin, and abusive experiences) and more problematic current functioning (including an insecure adult attachment style, abuse as an adult, trauma-related symptomatology, problems with the law, an unsupportive social network, substance abuse, and emotional problems). In their current relationships, we expected that unsupportive mothers would report more problems with their partners, more conflict with their mothers, and insecure attachment relationships with the abused children, as indicated by more discontinuity of caregiving and by a lack of increased attachment-related affect following disclosure of abuse. Finally, we expected that the unsupportive mothers would report that the perpetrator is a husband or boyfriend who lives in the home, show more financial dependence on the perpetrator, report more conflict in the relationship, and remain in the relationship with him following disclosure of their children's abuse.

Based on past research indicating that sexual abuse has a negative impact on children's emotional, social, and cognitive functioning (Aber, Allen, Carlson, & Cicchetti, 1989) and that maternal unsupportiveness intensifies these effects, we expected to find that children of unsupportive mothers would show more behavioral problems and sexualized behaviors, poor cognitive functioning, an insecure attachment pattern, conflicted relationships with their mothers and grandmothers, inadequate social networks, and overall poor psychosocial adaptation and would attribute blame to the mother in regard to the abuse. We also expected that these children would have experienced more prior abuse and were more likely to have been abused by a father figure.

METHOD

Participants

The participants who were referred by the child protective services at an urban hospital and by a range of other professionals included (a) 99 nonoffending African American mothers and their sexually abused children who ranged in age from 4 to 12 years, of whom 61 (61.6%) mothers were classified as supportive and 38 mothers were classified as unsupportive,

and (b) 52 grandmothers, of whom 33 (63.5%) were the mothers of supportive mothers and 19 (36.5%) were the mothers of unsupportive mothers. All of the participants were African American, the predominant population served by the hospital.

Criteria in regard to the abuse were that the case be substantiated by the state child protective agency, that the perpetrator was an established person within the family system and at least 5 years older than the victim, that the abuse incident occurred within the past 6 months, and that some form of genital touching had occurred.

As Table 1 indicates, there were no significant demographic differences between the grandmothers in the two groups. Overall, the grandmothers have an average age in their 50s, have been married at some point in their lives, and have on average approximately five children who were fathered with multiple partners. At the time of the interview, approximately one third of the grandmothers were employed.

There were no significant demographic differences between the supportive and unsupportive mothers (see Table 2). Their age averaged approximately 30 years. More than half of the mothers were single and had never been married, and approximately one fourth were presently married. More than half of the mothers completed high school; at the time of the interview, the majority of mothers were unemployed. Mothers in each group had on average three children.

Children of supportive mothers ($n = 61$) were similar in age and gender to the children of unsupportive mothers ($n = 38$) (see Table 3). The majority of the children were female, with a mean age of 7 years.

Measures

Maternal support to the child was assessed with the Parental Reaction to Abuse Disclosure Scale (PRADS) (Runyan, Hunter, & Everson, 1992). This scale is a modified version of the Parental Reaction to Incest Disclosure Scale (Everson et al., 1989). It consists of four items: (a) belief in the child's report, (b) emotional support offered to the child, (c) choice of child over perpetrator, and (d) attitudes toward professional services. The subscales are rated from -2 (*least supportive*) to $+2$ (*most supportive*) with a total range of -8 to $+8$. A score of $+4$ on the PRADS classified mothers as supportive to their children. Reliability and validity measures are not available presently for the PRADS.

Maternal history and current functioning were assessed with a semistructured interview developed for this study that included demographic data and questions regarding the mother's early history of care-

TABLE 1: Demographic Characteristics of Mothers of Supportive and Nonsupportive Mothers

<i>Characteristic</i>	<i>Supportive (n = 33)</i>	<i>Nonsupportive (n = 19)</i>
Mean age	51.0	55.1
Age range	37-68	39-70
Education (%)		
Less than Grade 9	24.2	36.8
Grade 9-11	24.3	36.9
High school graduate/GED	33.3	10.5
Some college	18.2	15.8
Marital status (%)		
Married	12.1	15.8
Separated	30.3	15.8
Divorced	21.2	31.6
Single (never married)	12.1	15.8
Widowed	24.2	21.1
Mean number of children	5.5	5.3
Range of number of children	1-9	1-14
Number of fathers of children (%)		
1	24.2	26.3
2	39.4	26.3
3-5	36.4	47.4
Type of employment (%)		
Unskilled	6.1	0.0
Blue collar	12.1	10.5
White collar	15.2	5.3
Professional	0.0	15.8
NA (not employed)	68.4	66.7
Income (%)		
Only government assistance (GA)	57.6	31.6
Only wages	27.3	42.1
Both GA and wages	15.2	26.3

NOTE: GED = general equivalency diploma.

givers. The interview also assessed family problems, past abuse and neglect as a child and as an adult, substance abuse and criminal activity, relationship with mother, and social support network. In addition, incidents of prior abuse of the child, the mother's reaction to the current disclosure of abuse, her actions and feelings toward the child and perpetrator, and her account of the effect of the abuse on the child were assessed.

Several composite scores were developed from this interview. Cronbach's alpha was calculated for the various composite scores for this study. The results are reported for each scale reflecting low to high reliability scores. The Family of Origin Problems Composite Score includes six items that address health, emotional functioning, alcohol and drug use, criminal activity, domestic violence, and other problems. This composite yielded a possible range of scores from 0 (no problems present) to 6 (six family problems present). This score achieved a Cronbach's alpha of .58. The Continuity of Care Composite Score reflects

TABLE 2: Demographic Characteristics of Supportive and Nonsupportive Mothers

<i>Characteristic</i>	<i>Supportive (n = 61)</i>	<i>Nonsupportive (n = 38)</i>
Mean age	30.1	29.5
Age range	19-49	20-43
Marital status (%)		
Married	26.2	21.1
Separated	3.3	13.2
Divorced	13.1	5.3
Single (never married)	55.7	55.3
Widowed	1.6	5.3
Living with husband/boyfriend (%)	49.2	57.9
Education (%)		
Less than Grade 9	4.9	5.3
Grade 9-11	34.5	42.1
High school graduate/GED	24.6	26.3
Some college	36.1	26.3
In school (%)	21.3	10.5
Type of employment (%)		
Unskilled	3.3	5.3
Blue collar	6.6	13.2
White collar	24.6	5.3
Professional	0.0	2.6
NA (not employed)	65.6	73.7
Income (%)		
Only government assistance (GA)	29.5	39.5
Only wages	36.1	31.6
Both GA and wages	32.8	28.9
Mean number of children	3.0	3.4
Range of number of children	1-8	1-8
Number of fathers of children (%)		
1	36.1	23.7
2	36.1	42.1
3-5	27.9	34.2

NOTE: GED = general equivalency diploma.

TABLE 3: Demographic Characteristics of Children of Supportive Mothers and Children of Unsupportive Mothers

<i>Characteristic</i>	<i>Supportive (n = 61)</i>	<i>Unsupportive (n = 38)</i>
Mean age	7.03	7.66
Age range	4-12	4-12
Sex (%)		
Male	14.8	10.5
Female	85.2	89.5

increasing stress on primary attachment relationships. It is based on 14 questions that ask the mother to list with whom she lived for 6 months or longer from birth to 16 years of age. The scores represent a range from instability of caregiving and no biological parents present (score of 1) to stability in parenting with the continuous presence of both a mother and father (score of 7). The interviewers assign a score

based on information received in the interview. No reliability testing was completed. A previous study (Gorman, Leifer, & Grossman, 1993) reported interrater reliability of 90.6% on this measure.

The Negative Outcomes in Relationships Composite Score is based on four questions concerning the mother's relationships with male partners including the duration and quality of the relationships, whether domestic violence occurred, and whether the partner had substance abuse problems or a criminal record. Scores range from 0 to 4 with higher scores representing more problematic relationships, with Cronbach's alpha of .62. The Adult Problems Composite Score included six items that addressed emotional functioning, alcohol and drug use, criminal activity, health concerns, and other problems. Scores range from 0 to 6 with higher scores indicating more problems, with a Cronbach's alpha of .47.

Maternal social support was assessed with the Inventory of Supportive Figures (Burge & Figley, 1982, adapted by Runyan et al., 1992), which asks the mother to identify the person most helpful to her since the disclosure of her child's sexual abuse. The question is followed with a series of probes pertaining to the type and amount of support received (on an ordinal scale with values from 0-3). Total support scores can range from 0 to 36. There are no reliability or validity data for this measure.

Psychological distress of the mother and the grandmother was measured with the Trauma Symptom Checklist-40 (TSC-40) (Briere & Runtz, 1988, 1989), which consists of 40 symptom items each of which is rated for frequency of occurrence on a 4-point scale. These items are summed to produce a total score and six subscale scores. The alpha for the complete checklist is .89, suggesting reasonable reliability overall, with a mean internal consistency for the subscales at .71. It has been shown to discriminate abused from nonabused individuals within both clinical and nonclinical samples (Bagley, 1991; Briere & Runtz, 1989; Elliott & Briere, 1992; S. Gold, Milan, Mayall, & Johnson, 1994).

Attachment style of the mother and the grandmother was assessed with the Relationship Scales Questionnaire (Bartholomew, 1990, 1994; Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994), a self-report measure of adult attachment that consists of 30 items designed to measure four different attachment styles: secure, preoccupied, dismissing/avoidant, and fearful/avoidant. Participants rate themselves according to a 5-point Likert-type scale on the 30 items that are coded for the four attachment styles. Support for the reliability and validity of this measure has been provided by several studies

(Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994; Simpson & Rholes, 1994).

The Maternal Attachment Questionnaire (MAQ) (Griffin & Bartholomew, 1994) was used to assess the mothers' and grandmothers' current perceptions of their relationships with their own mothers during childhood. This measure consists of three descriptions of the level of maternal availability to her child. Respondents check the statement that best describes their relationship with their mothers before their teen years. There are no reliability or validity data for this measure.

Grandmother's history and current functioning were assessed with an interview that parallels the maternal interview. In addition to demographic material, questions were asked regarding the grandmother's attachment history, her history of abusive experiences, problems as an adult, her relationship with her daughter and grandchild, and her perception of the abuse.

Sexual behaviors of the children were measured with the Child Sexual Behavior Inventory (CSBI) (Friedrich et al., 1992; Friedrich, Grambsch, Broughton, Kuiper, & Beilke, 1991; Friedrich, Urquiza, & Beilke, 1986), a 40-item parent report measure that assesses a wide variety of sexual behaviors related to self-stimulation, sexual aggression, gender-role behavior, and personal boundary violations using a 4-point scale. Friedrich et al. (1992) presented evidence indicating that this is a reliable and valid measure.

Child behavior problems and social competence were assessed with the Child Behavior Checklist (CBCL) (Achenbach, 1991; Achenbach & Edelbrock, 1983) completed by the mothers. This measure consists of 20 social competence items and 113 behavior problems with internalizing and externalizing behavior subscales for children ages 4 to 16. This well-established and reliable measure provides normative data by age and sex groups.

Validity concerns about the CBCL have centered on the possible bias of parents as reporters, particularly in families who experienced problems such as sexual abuse (Kendall-Tackett, Williams, & Finkelhor, 1993). Runyan et al. (1992) found that maternal reports of the sexually abused child's behavior problems are highly related to the mother's own symptomatology. However, other studies have reported that parent ratings were relatively valid (Kinard, 1996; Shapiro, Leifer, Martone, & Kassem, 1992; Tong, Oates, & McDowell, 1987).

Child intellectual ability was measured with the Peabody Picture Vocabulary Test-Revised (PPVT-R) (Dunn & Dunn, 1981), a reliable and valid measure of

receptive language abilities that correlates approximately .70 with full-scale IQ scores.

Child attachment status was measured with the Separation Anxiety Test (SAT) (Hansburg, 1972), a semiprojective measure of the child's internal representation of attachment relationships with the parents that assesses the responses of children to separations from or loss of attachment figures. Hansburg's (1972) version consists of 12 ink drawings depicting a same-sex child experiencing increasingly stressful separations from parents/attachment figures.

For this study, we developed a version of the SAT for use with African American children. The pictures, modeled after Hansburg's (1972) originals, used seven shaded drawings of mildly to moderately stressful parent-child separations. The situations paralleled those used by Kaplan (1984) but depicted African American figures. The procedure for administration of the SAT was based on Kaplan's test revision (1985).

All SAT interviews were audiotaped and transcribed verbatim. Any identifying information on protocols was removed. The interview transcripts were coded according to Kaplan's (1987) system for rating attachment on the SAT that yields four attachment categories: secure (B), insecure-avoidant (A), insecure-ambivalent (C), and insecure-fearful/disorganized-disoriented (D).

Family drawings were used as a concurrent measure of the child's attachment status. Drawings were examined and assigned an attachment classification of secure (B) or insecure (A, C, D, and unclassifiable), reflecting the theme of the picture (Kaplan & Main, 1986).

Two raters were trained in classification of the SAT and the family drawing by an attachment researcher who trained on these measures. The raters were blind to participants' group status. Each of the SATs was coded by the two independent raters who obtained a mean proportion of agreement of .81 (proportion of agreement = number of agreements/number of disagreements); the range was .73 to .94. The expert rater resolved all disagreements.

The SAT attachment classification and the family drawing attachment classification then were considered in aggregate to obtain an overall status of secure or insecure for each participant. Because the literature indicates stronger validity for the SAT than the drawing, the SAT classification was the final determinant of overall attachment security in the discrepant cases. The concordance between the SATs and the drawings was .92

Child psychosocial functioning was assessed with a semistructured interview. The first part of the interview was an abbreviated form of the Child Assessment

Schedule (Hodges, as cited in Runyan et al., 1992). We created three composite scores in the following areas: friendships, fears and worries, and physical complaints. The Friendship Composite Score was based on three questions that asked the children about their friends, whether they had a best friend, and if they trusted people in general. The range of scores was 0 to 3, with a higher score reflecting a more positive score on having friends and trusting people (Chronbach's alpha = .19). The Fears and Worries Composite Score was based on questions about the children's fears and what they worried about. The range of scores was 0 to 4, with a higher score reflecting more fears and worries (Chronbach's alpha = .26). The Physical Complaints Composite Score was based on six questions that asked the children about feeling tired, sleep problems, nightmares, appetite, stomachaches, and headaches. The range of scores was 0 to 12, with a higher score reflecting more physical complaints (Chronbach's alpha = .55).

The child social support section of the interview elicited the child's perception of the availability of adult support in four situations including feeling hurt or sad; needing help with homework or with a problem; having fun; or needing food, clothing, or money. The child was asked to identify the adult he or she would seek out first, second, and third in each of these areas. For each adult identified, the level of his or her support was rated by the child on a 3-point Likert-type scale. In addition, if the mother was not included in the first three choices, the child was specifically asked if the mother was supportive in this area and responses rated on a 3-point scale. The Quality of Support Composite Score represented the support the child received in each of the four areas by summing the responses of the Likert-type scales (Chronbach's alpha = .79). The range is 0 to 48, with a higher score reflecting a higher level of support.

The child's perception of the Mother's Role in Social Network Composite Score measured the child's perception of the availability of his or her mother in the abuse incident as well as the four areas of support previously described with a range of scores of 0 to 5, with the higher scores indicating greater maternal support (Chronbach's alpha = .72). The child's perception of the Grandmother's Role in Social Network Composite Score assessed perception of the grandmother in an identical manner to that described for the mother (Chronbach's alpha = .73).

Questions in the child interview also assessed perceptions of the effects of the abuse on the relationship with the mother. The children were asked whether their mothers felt differently about them because of the abuse (rated as no change, positive change, or

negative change). Three questions were asked about attribution of blame for the abuse: Did the child blame the mother, the perpetrator, and/or himself or herself for the abuse?

Abuse-related factors including incidents of prior abuse, severity of abuse, and the child's relationship to the perpetrator were assessed with the maternal interview.

Procedure. Eligible families were typically contacted within 24 hours of referral, informed about the study, and invited to participate. A consent form approved by the institutional review board of the hospital was signed by the mother to give consent for her child to participate in the project. The majority of grandmothers were interviewed at a later time. All participants were reimbursed \$50 on completion of the interview.

RESULTS

For each hypothesis, a one-way multivariate analysis of variance procedure (MANOVA) was performed on data measured at an interval/ratio level. For variables at an ordinal or nominal level, a series of chi-square analyses was performed comparing families of supportive versus nonsupportive mothers. Conventional alpha level of .05 was used to test for the significance of the factors for each hypothesis. The total *n*s are reported due to occasional missing data.

Maternal Grandmother Factors

The MANOVA performed on the hypothesis regarding maternal grandmother factors differentiating supportive and nonsupportive mothers did not yield a significant effect on these factors (Wilks's Lambda $F(1, 50) = 0.889, p = .602$).

A series of chi-square analyses produced a number of significant differences between the two groups of grandmothers in their relationships with their daughters and grandchildren. Mothers of supportive daughters reported more positive relationships with their daughters, $\chi^2(3, N=52) = 9.12, p = .028$. Only 36.8% ($n = 7$) of the mothers of nonsupportive mothers reported a positive relationship with their own daughters compared to 66.7% ($n = 22$) of the mothers of supportive mothers. Mothers of supportive mothers reported having more contact with their grandchildren, $\chi^2(3, N = 52) = 8.24, p = .04$. The vast majority (94.0%, $n = 31$) reported having contact with their grandchildren on a daily or weekly basis compared to 68.4% ($n = 13$) of the mothers of nonsupportive mothers. These mothers of supportive mothers were also more likely to take action on behalf of their grandchildren at the time of abuse disclosure, $\chi^2(2, n = 50) = 6.53, p = .04$. No signif-

icant associations were found in regard to the grandmother's belief of the child's account of the abuse, her attribution of blame for the abuse, the quality of relationship with the grandchild, or her level of caregiving of her grandchild.

Maternal Factors

A MANOVA was performed on the hypothesis regarding maternal factors differentiating supportive and nonsupportive mothers. The MANOVA yielded a significant effect on factors distinguishing supportive from nonsupportive mothers (Wilks's Lambda $F(1, 90) = 2.005, p = .038$). Univariate tests indicated that this significance was associated with 4 of the 11 factors. The nonsupportive mothers scored higher on the Continuity of Care Composite Score ($F(1, 90) = 4.743, p = .032$), indicating more disruptions and stress in family attachment relationships during childhood than reported by supportive mothers.

The pattern of discontinuity of childhood care continues into the next generation. Nonsupportive mothers report more separations from their children than do supportive mothers ($F(1, 90) = 11.940, p = .001$). The Adult Problems Composite Score indicated that nonsupportive mothers report more substance abuse and problems with the law, including more arrests and serving jail time ($F(1, 90) = 8.867, p = .004$). Nonsupportive mothers also report more negative outcomes in their heterosexual relationships ($F(1, 90) = 5.0444, p = .027$), including frequent changes in partners, domestic abuse, poor long-term relationships, and partners with substance abuse or problems with the law. Chi-square analyses produced no significant associations on the Family-of-Origin Problem Composite Scores, childhood abuse/neglect history, relationship with mother before teen years (MAQ), adult abuse history, attachment style, Total Trauma Score (TSC-40), social support, and current relationship with mother.

Mother's Relationship With the Perpetrator

A series of chi-square analyses performed on these nominal level variables indicated that a father figure (38.8%, $n = 31$), such as a biological father, stepfather, or mother's boyfriend, living in the home was more likely to have been the perpetrator in families where the mother was nonsupportive (40.6%) than in families with supportive mothers (17.5%), $\chi^2(1, n = 89) = 5.70, p = .017$. Nonsupportive mothers were more financially dependent on the perpetrator than were the supportive mothers, $\chi^2(1, n = 89) = 7.32$, Fisher's Exact Test $p = .011$. After the disclosure of abuse, perpetrators were less likely to be in the criminal justice system in cases where the mother was nonsupportive

(11.5%) compared to supportive mothers (39.6%), $\chi^2(1, n = 74) = 6.35, p = .012$. Approaching significance, 32 (56.1%) supportive mothers and 11 (35.5%) nonsupportive mothers reported no contact with the perpetrator since the time of disclosure, $\chi^2(1, n = 74) = 3.43, p = .06$.

Child Functioning

A MANOVA was performed on the hypothesis regarding factors differentiating the children of supportive and nonsupportive mothers. Two child scales, Fears and Worries Composite Score and Friends Composite Score, were eliminated due to missing information from young children who were not in school or unable to understand questions on self-image. The MANOVA yielded a significant effect on child functioning factors (Wilks's Lambda $F(1, 78) = 2.195, p = .028$) that distinguished the two groups of children. Univariate tests indicated that this significance was associated with 2 of the 10 factors. The Child's Perception of Mother's Role in Social Network Composite Score ($F(1, 78) = 7.188, p = .009$) indicates that children of supportive mothers rated their mothers as more supportive in five areas of support. Children of supportive mothers also scored higher on the Physical Complaints Composite Score ($F(1, 78) = 5.159, p = .026$), indicating that they reported more problems such as stomachaches and loss of appetite than did children of nonsupportive mothers. No significant differences were found for the following child-functioning factors: internalizing and externalizing scores on the CBCL, total score on the CSBI, standard score on the PPVT-R, Child's Perception of Grandmother's Role in Social Network Composite Score, and Total Quality of Support Composite Score. A chi-square analysis found no significant differences on attachment style as measured on the SAT and family drawing.

Relationship Between Mother and Child After the Abuse

One half (53.1%) of mothers of abused children reported that their feelings or behavior toward their children changed after they learned about the abuse. Supportive mothers (61.7%, $n = 37$) were more likely to report such a change as compared to 39.5% ($n = 15$) of nonsupportive mothers, $\chi^2(1, n = 98) = 4.6, p = .03$. All supportive mothers ($n = 34$) reported these changes in their feelings and behavior as positive compared to only 66.7% ($n = 10$) of nonsupportive mothers, $\chi^2(2, n = 52) = 12.62, p = .002$.

The abused children were asked about their mothers' responses to them following the disclosure of abuse. The majority (78.2%) of children with sup-

portive mothers reported a positive emotional reaction by their mothers compared to only 20.8% of the children with nonsupportive mothers, $\chi^2(1, n = 89) = 23.05, p = .000$. The remaining children of nonsupportive mothers reported negative (8.3%), withdrawn (25.0%), and ambivalent reactions (45.8%).

Abuse-Related Factors

On the maternal interview, the mother was asked to report any prior incident of sexual abuse, physical abuse, and emotional abuse that had occurred to the child. A significant difference was found in the area of physical abuse, $\chi^2(1, n = 98) = 4.93$, Fisher's Exact Test $p = .05$. Children of nonsupportive mothers (15.8%) were more likely to have been victims of prior physical abuse when compared to children of supportive mothers (3.3%).

Children of nonsupportive mothers more often blamed their mothers for the abuse, $\chi^2(1, n = 92) = 7.93$, Fisher's Exact Test $p = .014$. These children believed that their mothers were to blame in 25.0% ($n = 8$) of the cases, whereas only 5.0% ($n = 3$) of the children with supportive mothers blamed their mothers.

DISCUSSION

This investigation represents the first study to examine three generations of families of sexually abused children in regard to the issue of maternal support. The results indicate that conflicted intergenerational relationships are related to the quality of maternal support to the abused child. The grandmothers of children who did not receive maternal support described their relationships with their daughters more negatively than did the grandmothers of children receiving maternal support; they also had less contact with their grandchildren, and they took significantly less protective action on their behalf. Few other differences were evident among the grandmothers.

Troubled intergenerational attachment relationships clearly distinguished the supportive mothers of abused children from those who were unsupportive. The childhoods of the unsupportive mothers were characterized by notable disruptions of their attachment relationships as indicated by more separations from each of their biological parents and less continuity of care. In turn, they provided less continuity of care to their own children; they reported significantly more separations from their children than did the supportive mothers. Overall, these findings are congruent with Bowlby's (1969) view that discontinuity of early relationships represents a trauma to the attach-

ment system that is likely to have intergenerational repercussions. Unsupportive mothers were also less likely to experience an increase in positive feelings towards the child following disclosure of the abuse. Bowlby (1969) has suggested that attachment feelings become activated at times of crisis; these increased feelings of affection were reported by the supportive but not by the unsupportive mothers. It appears that an intergenerational history of disrupted attachment relationships may be associated with the mother's difficulty in providing support to her sexually abused child.

A significant number of unsupportive mothers were substance abusers as were their partners. These findings are consistent with previous research (Leifer et al., 1993) indicating that maternal substance abuse is associated with a lack of maternal support. Our findings extend past research indicating an association between maternal problems with the law and child sexual abuse (Maker, Kemmelmeier, & Peterson, 1999) by identifying a range of criminal behaviors that are associated with lack of support to the child.

Problematic relationships with partners were more evident among the unsupportive mothers. These relationships were often short term and characterized by domestic violence, and partners were more frequently described as having problems with drugs, alcohol, or criminal behavior. Crittenden and Ainsworth (1989) hypothesized that in spite of a desire to establish more satisfying and secure relationships, women with disrupted attachment relationships would be expected to choose as partners individuals who contribute to the maintenance of distressed relationships. Overall, the early disruptions in attachment that the unsupportive mothers reported may be associated with more problematic relationships with their children and their partners, supporting the attachment theory notion that early relationship history can be reenacted in adult relationships with significant others (Bowlby, 1969).

Like others, we also found a relationship between maternal support and the mother's relationship with the perpetrator (Deblinger et al., 1993; Elliott & Briere, 1994; Everson et al., 1989; Faller, 1988; Heriot, 1996; Sirles & Franke, 1989; Tufts, 1984). Mothers were less likely to be supportive if they were financially dependent on the perpetrator and/or if he was a biological father, stepfather, or boyfriend living in the home. Nonsupportive mothers were more likely to continue contact with the perpetrator following abuse disclosure. The perpetrators in families of unsupportive mothers were less likely to be in the criminal justice system. It appears that the nature of the mother's relationship with the offender is an

important factor influencing her willingness to press charges against the offender.

In sharp contrast to the overwhelming majority of children of supportive mothers who reported that their mothers responded positively to them after the disclosure of their abuse, children of unsupportive mothers reported primarily ambivalent or withdrawn reactions from their mothers. Whereas the children of supportive mothers reported that there had been a positive change in maternal feelings toward them following disclosure, children of unsupportive mothers reported more negative change. Similarly, although there were no overall differences in their social networks, children of unsupportive mothers reported that their mothers provided less support at the time of the abuse incident, less emotional support, and less support for life necessities. Considerable research suggests that disturbances in the mother-child relationship represent a risk factor for the development of behavioral and psychological disturbance (e.g., Aber et al., 1989). Children of unsupportive mothers more often blamed their mothers and tended to blame themselves more often for the abuse than did children of supportive mothers. Research indicates that a self-blaming attributional style is strongly related to children's poor adaptation to sexual abuse (Feiring, Taska, & Lewis, 1998a).

Children of unsupportive mothers were more likely to have experienced prior physical abuse, to have been abused by their fathers or father figures, and to be abused at home by a perpetrator who lived at home. Finkelhor and Browne (1985) suggested that abuse by a close relative may have more severe psychological consequence; although this was not evident at the current assessment, long-term effects could show more of a relationship to these perpetrator factors.

In contrast to previous research (Adams-Tucker, 1982; Conte & Berliner, 1988; Everson et al., 1989; Fromuth, 1986; E. R. Gold, 1986; Goodwin et al., 1981; Howard, 1993; Leifer et al., 1993; Pellegrin & Wagner, 1990; Tufts, 1984; Waterman et al., 1993; Wyatt & McKey, 1987), we did not find a relationship between maternal support and parent-reported child functioning on standard measures of behavior problems, sexualized behaviors, attachment style, and cognitive ability. Because many children in this study were assessed while still in the midst of the crisis generated by disclosure of the abuse, it is possible that differences in the functioning of the two groups had not yet become manifest in these areas.

Overall, the findings of this study extend the view developed by attachment theorists that disturbed intergenerational family relationships increase the

child's vulnerability to being abused by indicating that disturbed family relations are associated with lack of support to the abused child and can therefore exacerbate the effects of abuse. Nonsupportive mothers reported less continuity of care in their own childhoods; provided less continuity of care to their own children; and described more conflicted relationships with their mothers, children, and male partners. Similarly, the mothers of these nonsupportive mothers described more negative relationships with their daughters, were also less supportive of their abused grandchildren, and took less protective action on their behalf. Bowlby (1969) postulated that it is the working models of the self, others, and the self-other relationships that are transmitted across generations and account for continuity of abuse. This study underscores the important associations of these family legacies with maternal support to the child.

Several limitations to the present study should be considered. The sample of African American families with low financial resources and from inner-city environments has been an understudied population. However, caution must be used in generalizing the findings of this study to other groups.

Considerable controversy exists about the validity of information obtained from retrospective self-reports (Kazdin, Kraemer, Kessler, Kupfer, & Offord, 1997), which were used to assess the grandmothers' and mothers' histories of childhood abuse and problems in their families of origin. Therefore, the accuracy of the mothers' and grandmothers' recall of childhood traumatic events and family of origin histories cannot be fully assured.

Despite their limitations, these data add to our current knowledge by documenting a range of intergenerational factors that distinguish families of supportive mothers from those of unsupportive mothers of abused children. Our findings underscore the importance of assessment of family functioning and therapeutic interventions targeted toward families to reduce long-term child dysfunction in the aftermath of sexual abuse.

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

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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

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 non-offending 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 BDI-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 asso-

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

Variable	Denies History of Abuse (n = 15)		History of Abuse (n = 23)	
	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)

Variable	Comparison Mothers (n = 27)		Mothers of CSAVs (n = 27)	
	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.

** $p \leq .001$.

ciated 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.

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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