

Sexual Abuse History and Number of Sex Partners Among Female Adolescents

by Tom Luster and Stephen A. Small

A survey completed in 1996 of 10,868 adolescent females from one Midwestern state indicates that 10% had experienced sexual abuse by an adult or by someone older than themselves—9% in the past and 1% in an ongoing situation. Past and current victims of sexual abuse had had more sexual partners during the past year (2.3 and 1.2, respectively) than their peers who had never been sexually abused (0.5). Regardless of sexual abuse history, teenagers whose activities were closely monitored by their parents, who received high levels of parental support and whose parents disapproved of teenagers having sex had fewer sexual partners than other adolescents. Respondents who had experienced physical abuse in addition to sexual abuse were at further increased risk of having had multiple sexual partners. Overall, sexually abused adolescents with a supportive family had fewer recent partners than those from a less supportive family environment; family context had less influence on number of partners among respondents with no history of sexual abuse.

(Family Planning Perspectives, 29:204–211, 1997)

Child sexual abuse has been linked with a range of problem outcomes during childhood, adolescence and adulthood. Adults who were victims of child sexual abuse often fear sex, distrust their sex partners, have decreased sexual drive and have multiple superficial sexual relationships.¹ Some children who were sexually abused have been found to engage in sexualized behavior (e.g., atypical sexual play with dolls and playmates, or excessive masturbation) and have a precocious interest in sexual matters.²

Somewhat surprisingly, few studies have focused on the relationship between child sexual abuse and sexual behavior during adolescence, the developmental stage when experimentation with sexual behavior and relationships typically occurs.³ In their review of the literature, Kendall-Tackett and her colleagues found two studies focused on promiscuity in adolescent victims of child sexual abuse that had sampled a total of 128 sexually abused adolescents.⁴ Overall, 38% of victims were classified as promiscuous—35% in one study and 48% in the other. Neither study included a comparison group of nonabused adolescents, however, so it was not possible to determine how different the sexual behavior of the abused adolescents was from that of others.

Frommuth's examination of the relation-

ship between sexual abuse and sexual behavior in a sample of college women found that a history of child sexual abuse was associated with having experienced intercourse, but the relationship was reduced to nonsignificance when the effect of parental support was controlled.⁵ There was also no significant association between child sexual abuse and age at first intercourse, pregnancy experience, abortion experience, sexual desire or frequency of sexual activity. Moreover, while women with a history of sexual abuse perceived themselves to be more promiscuous, their reported number of sexual partners did not differ from that reported by those without such a history.

The above findings suggest little relationship between child sexual abuse and sexual behavior, but these results are not consistent with other findings for adult survivors of abuse, nor are they consistent with studies of adolescent pregnancy⁶ or adolescent sexual activity.⁷ Research focused on adolescent pregnancy has found that a disproportionate number of pregnant teenagers report a history of sexual abuse. Additionally, adolescents who have been sexually abused are more likely to report that they are sexually active. One possible reason for the inconsistent findings is that Frommuth studied college students, a relatively advantaged and selected sample who may not be representative of child sexual abuse victims.⁸ Victims of sexual abuse who are in college may cope better with their experience, on average, than

those who do not go on to college.

Because so little research has examined the relationship between child sexual abuse and number of sex partners among adolescents, and because previous studies have had several limitations, a full understanding of this topic has not yet been achieved. In this article, we further explore this issue using a larger, more representative sample than previous analyses. We hypothesize that adolescents with a history of sexual abuse are more likely to have multiple sex partners than are teenagers without such a history. Moreover, we expect that the relationship between sexual abuse and number of partners will remain significant, even when the effects of other variables that may influence sexual behavior (e.g., parental monitoring) are controlled.

A second objective of this article is to explore factors associated with an increased or decreased risk of having multiple sex partners among those who have been sexually abused. Indiscriminate sexual behavior may be one way in which some survivors cope with the emotional pain associated with child sexual abuse.⁹ In other cases, a precocious interest in sexual matters may carry over into adolescence and lead to greater and earlier sexual experimentation. Still other victims of child sexual abuse may find it difficult to say "no" to sex because they have learned from experience that saying "no" is not effective. (We also recognize, however, that some adolescents who were victims of child sexual abuse may have a decreased interest in sex as a result of their experience, and may avoid sexual stimuli as a way to cope with their experience.¹⁰)

According to Bronfenbrenner,¹¹ the effects of a developmentally significant process, such as the experience of sexual abuse, are likely to depend on characteristics of the person and characteristics of the context (e.g., how supportive the current family environment is). Of particular interest to us is how the effect of sexual abuse varies as a function of the current family context.

Several researchers have concluded that sexual abuse affects individuals differently.¹² Victims of sexual abuse differ in

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terms of the problems that manifest themselves and the severity of those problems. In fact, some survivors of child sexual abuse appear to experience no problems,¹³ and some researchers have argued that the next wave of research should focus on understanding factors that may exacerbate or ameliorate the effects of sexual abuse.¹⁴

Much research on this topic has focused on the nature and severity of the abuse experience. Victims of child sexual abuse tend to exhibit more problems if the abuse occurred over a long period of time, if force was involved, if penetration occurred and if the perpetrator had a close relationship with the child,¹⁵ as well as if victims experienced more than one type of abuse (e.g., sexual abuse and physical abuse).¹⁶

Events following disclosure can also affect the extent to which victims experience problems. Victims tend to have fewer problems if their mothers believe them and take steps to protect them.¹⁷ They tend to have more problems if they are required to testify on multiple occasions.¹⁸ Treatment also appears to have positive effects on victims of sexual abuse; however, one study concluded that aggressiveness and sexualized behavior do not change as much or as consistently in response to treatment as do other symptoms.¹⁹

We have found the current family context to be important for understanding which victims of sexual abuse experience such significant problems as binge drinking and suicidal ideation and which cope more effectively.²⁰ Adolescents who were sexually abused as children had fewer problems if they had a very supportive relationship with at least one parent and if their behavior was closely monitored by their parents. Other studies have shown that maternal support contributes to fewer problems among victims of sexual abuse,²¹ and tends to be associated with lower rates of sexual activity among adolescents generally.²²

Based on the results of our earlier work, we decided again to view parental monitoring and parental support as potential moderator variables (i.e., variables that may affect the strength of the relation between child sexual abuse and number of sexual partners²³). Unlike the earlier study, however, we will examine the effects of maternal support and paternal support separately. We expect to find high maternal support, high paternal support,* and high levels of parental monitoring to be associated with a decreased risk of having multiple sex partners.

A fourth family factor that we examine in this article is the adolescents' perceptions of their parents' attitudes about teen-

agers having sex. If parents clearly convey to teenagers that they believe it is wrong for teenagers to have sex, we would expect teenagers to have fewer sexual partners. We believe that if adolescents are not sure where their parents stand on this issue or if they believe their parents approve of teenagers having sex, their risk of having multiple sex partners will be greater. There is some evidence from past research that teenagers are less likely to be sexually active if their parents do not approve of sex among teenagers generally (or their children specifically).²⁴

We also expect that adolescents who experienced both physical abuse and sexual abuse will have more partners than those who experienced only one form of abuse. To the best of our knowledge, no research has examined the relationship between physical abuse and number of partners among adolescents. Nevertheless, if having sex with multiple partners is used as a way to cope with the emotional pain that results from abuse, or to achieve feelings of closeness and intimacy because such needs are not being met elsewhere,²⁵ physical abuse may also increase the risk of having multiple partners. Although one study of adult women found sexual abuse and emotional abuse (but not physical abuse) to be related to sexual problems (e.g., lack of interest or satisfaction with sex),²⁶ that study did not examine number of partners.

The other aspect of the abuse experience that we examine here is the recency of the abuse. Based on our earlier research showing that adolescents currently in abusive relationships exhibit more problem behavior (binge drinking and suicidal thoughts) than those who had been abused in the past,²⁷ we expect that the former group will also have more partners than the latter. However, a plausible alternative hypothesis is that those who were victims of abuse in the past would report the highest number of sexual partners if they are using sexual intimacy as a way to cope with emotional pain or if the sexual abuse experience led them to a heightened interest in sex at an early age. Moreover, those abused in the past may have had more time to be involved with several partners than those currently in an abusive situation, if the current abuse occurred very recently. In this article, we will assess the extent to which the data are consistent with either of these competing hypotheses.

In all, we include five potential moderator variables in our analyses: maternal support; paternal support; parental monitoring; parents' attitudes toward teen-

agers having sex; and physical abuse in conjunction with sexual abuse. In addition, we examine how the recency of the sexual abuse experience is related to both the moderator variables and the likelihood of having multiple sexual partners. Because females are 2–5 times as likely as males to be victims of sexual abuse during childhood and adolescence,²⁸ and because the consequences of having multiple sexual partners may be greater for females than males, we focus here on female adolescents only.

Methodology

Study Participants

The analyses for this article are based on previously collected survey data from 10,868 female adolescents enrolled in grades 7–12 in one Midwestern state—1,808 in seventh grade, 1,820 in eighth grade, 2,189 in ninth grade, 1,841 in 10th grade, 1,832 in 11th grade and 1,378 in 12th grade. The data were originally collected as part of a series of community-based surveys sponsored by local school districts and community organizations. The adolescents were asked to complete a 160-item self-reported questionnaire that was administered by trained data collectors in classroom settings during scheduled class periods. The survey was anonymous and assessed a variety of beliefs, attitudes and behaviors, as well as basic demographic and scholastic information.

The primary purpose of the survey was to provide program administrators, local policymakers and parents with information that could be used to guide program development and local policy decisions, and to educate parents and other members of the community about the needs, interests and behavior of local youths. Depending on the school district, 90–95% of students attending school on the day the survey was given participated in the study. The data were collected in the various communities from 1992 to 1996.

For this article, we aggregated data

*Very little previous research has noted whether paternal support may contribute to better outcomes among victims of sexual abuse, perhaps at least in part because of the belief that the father is sometimes the perpetrator of the abuse. However, data from a national probability sample suggest that parents typically do not perpetrate sexual abuse (see D. Finkelhor et al., "Sexual Abuse in a National Survey of Adult Men and Women: Prevalence, Characteristics, and Risk Factors," *Child Abuse and Neglect*, 14:19–28, 1990). The biological father was the perpetrator among only 3% of 416 women who had been sexually abused, while among 3% a stepfather was the perpetrator. Among 169 men who reported a history of sexual abuse, no parent was identified as the perpetrator. Moreover, it seems incorrect to assume that most fathers play no role in how their children cope with sexual abuse.

Table 1. Percentage distribution of female adolescents grades 7–12, by measures of sexual activity, abuse and family context, one Mid-western state, 1992–1996 (N=10,868)

Measure	%
SEXUAL BEHAVIOR AND ABUSE	
No. of sexual partners in past year	
0	72.5
1	14.8
2	5.2
3	2.9
4	1.5
≥5	3.2
Ever sexually abused	
Never	89.8
Previously	9.1
Currently	1.1
Ever physically abused	
Never abused	83.7
Previously	13.6
Currently	2.7
PARENTAL MONITORING	
Talks with parents about plans with friends	
Never	5.3
Rarely	11.4
Sometimes	27.2
A lot of times	31.2
Always	24.8
Tells parents who she is going to be with	
Never	2.7
Rarely	4.6
Sometimes	15.5
A lot of times	28.1
Always	49.0
Parents know who adolescent's friends are	
Never	1.5
Rarely	3.9
Sometimes	16.1
A lot of times	37.2
Always	41.2
MATERNAL SUPPORT	
Mother is there when respondent needs her	
Never	2.3
Rarely	6.0
Sometimes	14.9
Often	22.7
Very often	54.2
Mother cares about respondent	
Never	1.4
Rarely	2.5
Sometimes	6.1
Often	11.8
Very often	78.2
PATERNAL SUPPORT	
Father is there when respondent needs him	
Never	7.9
Rarely	11.3
Sometimes	20.8
Often	24.7
Very often	35.4
Father cares about respondent	
Never	3.8
Rarely	4.0
Sometimes	8.3
Often	15.5
Very often	68.4
PARENTAL ATTITUDES	
Parents believe it is wrong for teenagers to have sex	
Strongly agree	48.4
Agree	22.1
Not sure	19.8
Disagree	6.6
Strongly disagree	3.2
Total	100.0

from numerous communities into a statewide sample. Because the communities were not chosen at random, the data are not representative of all students in the state. However, the sample is representative of adolescents from the participating communities, and the communities were diverse with regard to size, economic resources and other factors.

Although data were collected from both males and females, we decided to focus only on the female adolescents for this article. Most of the 10,868 female participants (92%) were white, reflecting the racial composition of the region. The majority (66%) of the adolescents were living with both biological or adoptive parents; 14% were living with a parent and stepparent, 13% with a single parent and the remainder with their mother and father alternatively in a shared custody arrangement (2%), with a parent and an unrelated adult (2%), with another relative (1%), alone (1%) or in a group or foster home (less than 1%).

A subsample of 1,109 teenage women reported that they were either currently experiencing sexual abuse or had in the past. The percentage of adolescents who reported currently being sexually abused ranged from 1.7% of seventh graders to 0.8% of 12th graders. The percentage of teenagers reporting past sexual abuse increased by approximately 1% in each succeeding grade, from 5.9% in seventh grade to 7.6% in eighth grade, 9.4% in ninth grade, 10.3% in 10th grade, 11.6% in 11th grade and 12.6% in 12th grade.

Measures

• *Number of sexual partners.* The adolescents' number of partners during the past year was assessed with the following item: "If you have had sexual intercourse, how many different sexual partners have you had during the past year?" The actual number of partners reported was coded from zero to five. (Those who indicated "five or more partners" received a score of five.) Table 1 indicates that the vast majority of respondents had no partners during the past year (73%), while 8% had 2–3 partners and 5% had four or more.

• *Sexual abuse.* We assessed sexual abuse using the following question: "Have you ever been sexually abused by an adult or someone older than you? (Sexual abuse is when someone in your family or another person does sexual things to you or makes you do sexual things to them that you don't want to do.)" The possible responses were "no," "I am currently being sexually abused," and "I was sexually abused but the abuse has stopped." Nine-

ty percent of respondents had never been abused, 1% were currently being abused and 9% had been sexually abused in the past (Table 1).

• *Physical abuse.* A history of physical abuse was determined by responses to the following question: "Have you ever been physically abused by an adult (for example, beat up, hit with an object, kicked, or some other form of physical force)?" The possible responses were "no," "I am currently being physically abused," and "I was physically abused, but the abuse has stopped." For analyses in this article, individuals reporting never having been physically abused were scored zero; those reporting current or past abuse were scored one. Sixteen percent of the respondents had ever been physically abused, and 3% were currently being physically abused.

• *Parental monitoring.* Parental monitoring is a three-item measure derived from an earlier scale²⁹ for assessing the extent to which parents keep track of their children's whereabouts and show an interest in how and with whom their youngsters spend their time. The three items are: "My parent(s) know who my friends are;" "When I go out at night, my parent(s) know who I am with;" and "I talk to my parent(s) about the plans I have with my friends." Between 56% and 78% of adolescents responded that they gave their parents this information a lot of the time or always.

Each of these items was assessed on a five-point scale—never (zero) to always (four). The three items were summed to produce an overall parental monitoring score, with higher scores reflecting higher levels of monitoring (Cronbach's alpha=.77). The mean score for this 15-point scale was 8.89 (with a standard deviation of 2.5). When we used this measure as a dichotomous score, we assigned parents whose adolescents gave them a monitoring score of three (a lot of the time) or four (always) on each of the three items to the high-monitoring group (47%); all others were coded as low-monitoring (53%).

• *Parental support.* The support of each parent was assessed separately with two items: "My mother/father cares about me;" and "My mother/father is there when I need her/him." Seventy-seven percent of mothers and 60% of fathers were characterized as often or very often being there when needed, while 90% and 84% were considered to care about the respondent.

After each item was coded on a five-point scale (never to very often), the two items were summed to produce an overall measure of support from each parent.

(Cronbach's alpha=.77 for maternal support and .83 for paternal support.) With 10 as the maximum score, the mean maternal support score for the sample was 6.84 (standard deviation of 1.7), and the mean paternal support score was 6.11 (standard deviation of 2.1). When we treated this measure as a dichotomous variable, we coded an adolescent as receiving high support from a parent if the adolescent believed the parent cared about him or her "very often," and if the adolescent perceived that the parent was "there for him or her when needed" either "often" or "very often." All other respondents were coded as receiving low support. Based on these criteria, 69% of adolescents received high levels of support from their mother, and 53% received high levels of support from their father.

- *Parental attitudes about teenagers having sex.* The adolescents' perceptions of their parents' attitude toward teenagers having sex was assessed with a single item: "My parents believe that it is wrong for teenagers to have sex." Possible responses ranged from strongly agree (zero) to strongly disagree (four). When used as a dichotomous variable, this measure coded those who responded strongly agree or agree as one (70%); those who responded don't know, disagree or strongly disagree were coded as zero (30%).

- *Grade in school.* Older adolescents are more likely than younger adolescents to be sexually active, and they also have had a longer time in which to experience sexual abuse. For these reasons, the adolescent's grade in school was used as a covariate in many of the analyses, as a proxy for age.* For those who reported both age and grade, the correlation between age and grade for this sample was .93.

In this article, we first examine the relationship between sexual abuse history and number of partners. Next, we compare the family characteristics and family processes for teenagers by history of sexual abuse. Third, we explore separately the possible influence of each of the moderating variables. In the fourth set of analyses, to explore the cumulative effect of the moderator variables, we examine the association between sexual abuse history and number of partners for teenagers with differing levels of "family assets" (e.g., high parental monitoring or high maternal support). Finally, analysis of covariance is used to determine if a history of sexual abuse predicted an adolescent's number of sexual partners once the effects of family characteristics and processes were statistically controlled.

Table 2. Mean number of sexual partners and mean score for family context measures (and standard deviation), by sexual abuse history, and F ratio (and degrees of freedom)

No. of partners and family context measure	Never abused (N=9,759)	Previously abused (N=989)	Currently abused (N=120)	F ratio
No. of sex partners in past year	0.46 (1.04)	1.24 (1.59)†	2.29 (2.13)‡,§	362.16** (2, 10865)
Physical abuse (0–1 scale)	0.12 (0.33)	0.49 (0.50)†	0.69 (0.46)‡,§	570.75** (2, 10393)
Parental monitoring (15-pt. scale)	9.01 (2.47)	8.08 (2.79)†	6.24 (3.84)‡,§	119.73** (2, 10144)
Maternal support (10-pt. scale)	6.92 (1.60)	6.16 (2.07)†	5.05 (2.94)‡,§	155.32** (2, 10663)
Paternal support (10-pt. scale)	6.20 (2.03)	5.26 (2.48)†	4.36 (3.03)‡,§	116.37** (2, 10015)
Parental approval of teenage sex (0–4 scale)	0.90 (1.08)	1.22 (1.20)†	1.91 (1.58)‡,§	84.16** (2, 10835)

**p<.001. †Mean score for previously abused group differs significantly from mean for never-abused group, based on a Scheffe post-hoc comparison. ‡Mean for currently abused group differs significantly from mean for never-abused group. §Mean for currently abused group differs significantly from mean for previously abused group. Note: The measure of physical abuse was coded as 1=present or 0=absent.

Results

Sexual Abuse and Number of Partners

We conducted a one-way analysis of variance to determine if the average number of partners during the past year differed significantly among the teenagers who were never sexually abused, who had experienced prior sexual abuse or who were currently being abused. As indicated in Table 2, significant differences were evident among the three groups ($F[2, 10865]=362.16, p<.01$). In post hoc comparisons using the Scheffe test to determine which groups differed significantly from the other groups, we found that the average number of partners among currently abused teenagers (2.29) was significantly higher than the average number among those abused in the past (1.24), which in turn was higher than the number of partners among those who were never abused (0.46). Thus, the average score of each group differed significantly from the mean score of the other two groups.

Among never-abused adolescents, 76% reported having had no sexual partners during the past year, compared with 47% of the prior-abuse group and 33% of those currently abused. Of those who were never abused, 6% said they had had three or more partners in the past year, compared with 19% of those who had experienced prior abuse and 42% of those who were currently being abused. Thus, previously abused respondents were about three times as likely as never-abused teenagers to report having had three or more partners during the past year, and currently abused adolescents were seven times as likely as the never-abused to report that many partners over the past year.

Family Characteristics of Adolescents

Our next step was to compare the three groups of teenagers on the family variables (e.g., parental monitoring) that were

conceptualized as moderator variables. On average, did the teenagers with a history of sexual abuse live in less supportive family contexts than those who had never been abused? A series of one-way analyses of variance was conducted to address this question, and the results of these analyses are presented in Table 2.

There were significant mean differences among all three groups on all of the moderator variables—physical abuse, parental monitoring, maternal support, paternal support and parental attitudes regarding teenagers having sex. As expected, teenagers who had been sexually abused had less favorable scores on the family variables than teenagers who had never been sexually abused. Moreover, those who were currently being abused consistently reported a less favorable family environment than those who had been sexually abused in the past.

In addition to the moderator variables, we examined the family composition (i.e., two biological parents versus all others) of the adolescents in the three sexual abuse groups. Sixty-nine percent of the never-abused teenagers lived with both biological or adoptive parents,[†] compared with 43% of the previously abused and 48% of the currently abused adolescents ($\phi=.16, p<.001$).

Influence of Moderator Variables

We next examined the possible influence of the moderator variables on the extent to which sexual abuse history was related to number of sex partners.³⁰ We ex-

*The teenager's actual age was not used because age was not assessed in every community survey, but grade was measured in each; therefore, the amount of missing data was reduced when grade was used in the analysis.

†Since two biological parents or adoptive parents were combined as one response category in the survey, no distinction can be made between these two family arrangements.

Table 3. Mean number of sexual partners in past year, by sexual abuse history; and F value for selected effects on number of partners; all according to moderator variable

Variable	No. of partners			F value		
	Never abused	Previously abused	Currently abused	Effect of sexual abuse	Effect of moderator variable	Effect of interaction
Physical abuse						
Yes	0.86	1.57	2.92	216.7*	259.0*	14.8*
No	0.41	0.92	1.38			
Parental monitoring						
Low	0.64	1.50	2.60	305.1*	310.8*	16.7*
High	0.28	0.80	1.39			
Maternal support						
Low	0.63	1.52	2.41	305.8*	153.6*	11.2*
High	0.39	0.95	2.11			
Paternal support						
Low	0.56	1.29	2.26	274.6*	95.0*	1.4
High	0.35	0.99	2.06			
Parental attitude toward teenage sex						
Approving/unknown	0.76	1.63	2.94	323.0*	286.0*	21.0*
Disapproving	0.35	0.99	1.50			

*p<.01.

pected to find that the risk of having multiple sex partners would be reduced if the teenagers experienced high levels of parental support, were closely monitored by their parents and had parents who communicated to them that they did not approve of teenagers having sex. Moreover, we expected that teenagers would be more likely to have multiple sex partners if they experienced both physical and sexual abuse than if they experienced only sexual abuse.

Analysis of covariance was used to test these relationships. For each set of analyses, one of the moderating variables (coded dichotomously) and the three-category sexual abuse variable were entered as factors, with the number of sexual partners as the dependent variable. (Grade in school was used as a covariate to control for differences in age among the teenagers who were surveyed.) We then examined the F ratio for the interaction between sexual abuse history and the specific moderator variable to determine if the moderator increased or decreased the risk of having multiple partners more for some of the sexual abuse groups than for others.

For each sexual abuse group, adolescents tended to have more sexual partners if they had experienced physical abuse (Table 3). The risk of having multiple sex partners was decreased if the teenagers were closely monitored by their parents, had high levels of support from their mother or father, and had parents who did not approve of teenagers having sex. For all analyses, the main effect of the moderator variable on number of partners was

highly significant, as was the main effect of sexual abuse history.

We were particularly interested in the interaction between sexual abuse history and the moderator variables. As shown in Table 3, the interaction term was significant in each of the analyses except for the analyses involving support from the father. To understand the nature of the significant interaction effects, we conducted interaction comparisons,³¹ which involved running a series of two-by-two analyses of variance. In these analyses, the dichotomous moderator variable was entered as one factor, but only two sexual abuse groups were included in the analysis each time (i.e., currently and previously abused, currently and never abused, and previously and never abused).

These analyses showed that physical abuse increased the risk of having multiple partners to a greater extent among the two groups who had been sexually abused than among the teenagers who had never been sexually abused. In analyses involving the currently abused and the never-abused groups, the F(1, 9471) for the interaction term was 25.34 (p<.01), and in analyses of the previously and never-abused groups, the F(1, 10287) for the interaction was 8.70 (p<.01). Moreover, the effect of physical abuse was more pronounced among teenagers who were currently sexually abused than among those previously abused (F[1, 1019]=6.02, p<.05).

We obtained similar results for parental monitoring. The difference in the average number of sexual partners between those who received high levels and low levels

of parental monitoring was greater for both groups of sexually abused teenagers than for those never abused. In analyses including the currently abused and never-abused groups, the F(1, 9213) for the interaction between sexual abuse and parental monitoring was 13.59 (p<.01); when analyses were limited to the previously abused and never-abused groups, the F(1, 10028) for the interaction term was 22.78 (p<.01). However, the effects of high levels of parental monitoring did not differ for the previously abused and the currently abused adolescents.

Interaction comparisons show that the difference in the average sexual partner scores between those with high levels of maternal support and those with low levels of support was greater for those previously abused than for those never abused—F(1, 10550)=23.03, p<.01, for the interaction between sexual abuse and maternal support. The interaction term was not significant when the currently abused teenagers were compared with either of the other two groups.

Parental disapproval of teenage sex was associated with greater decreases in sexual partner scores in the two groups with a history of sexual abuse than among those who were never abused. When we limited analyses to the currently abused and never-abused groups, the F(1, 9848) for the interaction was 34.36 (p<.01); for analyses involving the previously and never-abused teenagers, the F(1, 10715) for the interaction term was 13.21 (p<.01). In addition, the effect of parental disapproval of teenage sex was more pronounced among the currently abused teenagers than among those previously abused—F(1, 1098) for the interaction term was 6.93, p<.01. Thus, for several moderator variables, the analyses supported the hypothesis that positive family processes, such as high levels of parental monitoring and parental disapproval of teenagers having sex, exert more of an impact on the sexual behavior of adolescents who have experienced sexual abuse than on the behavior of those who have never been abused.

Cumulative Effect of Family Assets

In the previous analyses, we examined the effect of each moderator variable separately. Next, we assess the cumulative effect of various family assets. We computed a score for each of the adolescents, with individuals receiving one point for each of the following: a high parental monitoring score, high maternal support, high paternal support, having parents who disapproved of sex during adolescence and

no history of physical abuse. Thus, scores on the "family assets measure" could range from zero (if none of these assets were present) to five (if all were present).

We then examined the average family assets scores of teenagers in the three subgroups. Based on the analyses in Table 2, we expected that adolescents with a history of sexual abuse would have fewer family assets than those who had not been sexually abused. The results of a one-way analysis of variance are consistent with this expectation ($F[2, 8766]=221.80, p<.01$). Post hoc comparisons made using the Scheffe test indicate that the average family assets score is higher for the never-abused teenagers (3.34) than for the previously abused (2.42); the latter had a higher average family assets score than the currently abused teenagers (1.75).

We then determined the average number of sexual partners for teenagers who had various combinations of scores on the family assets and sexual abuse measures. A three (sexual abuse groups) by four (family asset categories)* analysis of variance was conducted to examine both the main effects of sexual abuse and family assets and the interaction effect between sexual abuse and family assets on number of sex partners.

The main effects for sexual abuse ($F[2, 8756]=174.78, p<.01$) and for family assets ($F[3, 8756]=155.83, p<.01$) were each highly significant, as was the interaction term ($F[6, 8756]=7.64, p<.01$). The means for the various groups (Figure 1) show that differences in the number of sexual partners among adolescents with different experiences of sexual abuse are more prominent among respondents with low family assets scores than among those with high family assets scores. For adolescents with a family assets score of zero, the average number of sexual partners in the past year ranged from approximately one among those who were never abused to about 3.6 among those who were currently abused; among teenagers with a score of five on the family assets scale, the average number of partners was less than one in all three groups. The observation that currently abused teenagers with five family assets had a small mean number of partners (0.50) should be viewed with caution, however, as it was based on only four individuals.†

As a follow-up, we also conducted one-way analyses of variance for each of the three sexual abuse groups, to determine if adolescents with different levels of family assets had different mean numbers of partners. Post hoc Scheffe tests revealed that in the very large group of teenagers who had

never been abused, there were significant differences among all groups: Those with zero assets reported a higher mean number of partners (1.02) than those who had 1–2 assets (0.74), who in turn reported a higher mean than those with 3–4 assets (0.41); respondents with five assets had the fewest partners (0.14).

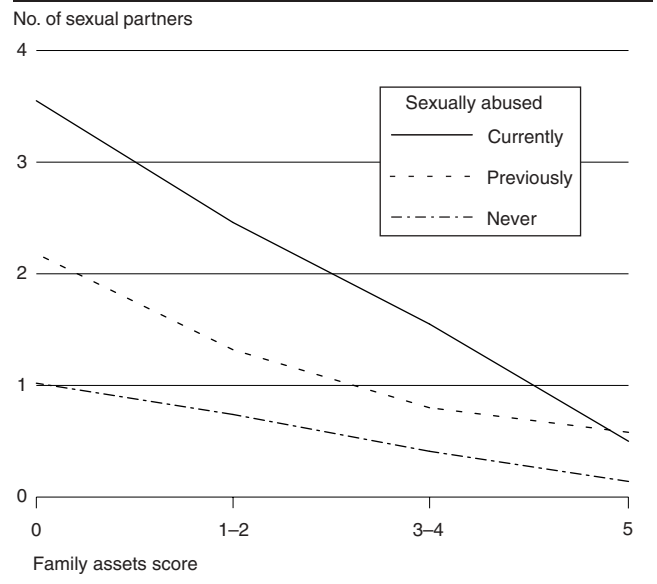
For teenagers who had previously been abused, those with no family assets had more partners, on average (a mean of 2.18), than did those with 1–2, 3–4, or five family assets. Similarly, adolescents with 1–2 assets averaged more partners (1.32) than those with 3–4 assets (0.80) or five assets (0.58). (There was no significant difference between the two latter groups.)

Among respondents who were currently being sexually abused, those with no assets averaged more sexual partners in the preceding year (3.55) than did those with 3–4 assets (1.55). However, there were no significant differences in the respective mean numbers of partners among those with 1–2 (2.46), 3–4 (1.55) or five assets (0.50). Because of the small number of adolescents who were currently abused, we had only limited power to detect differences among the adolescents with varying levels of assets.

Sexual Abuse and Family Processes

Some researchers have suggested that sexual abuse may be a proxy for general family dysfunction, and that it is really family dysfunction that accounts for the poor outcomes of victims of abuse, rather than the experience of sexual abuse.³² To test this possibility (within the limits of our data), we used analysis of covariance to assess the effect of sexual abuse on the number of partners, while controlling for the effects of parental monitoring, maternal support, paternal support, parental attitudes toward teenage sex, physical abuse, maternal education, paternal education, grade in school and family structure (two biological or adoptive parents versus all other arrangements). With the exception of physical abuse and family structure, all of the covariates were entered as continuous variables. The analysis of covariance

Figure 1. Number of sexual partners, by family assets score, according to sexual abuse history



was based on 8,740 individuals (80% of the sample) for whom we had complete data on the variables of interest.

These analyses revealed that sexual abuse had a significant effect on number of partners after we had controlled for the effects of the covariates ($F[2, 8729]=111.4, p<.01$). Physical abuse, parental monitoring, parental attitudes toward teenagers' having sex, family structure and grade in school were also significant predictors of the number of sexual partners. Neither parental education nor parental support predicted the number of partners when other factors were controlled, however.

Those who were currently abused could be counting the sexual abuse perpetrator as one of their sexual partners, thus inflating their number of partners. It seems less likely, however, that those who had been abused in the past would count the perpetrator as a sex partner, given that the question specified their number of partners in the past year. Thus, we ran the analysis of covariance a second time, with only the previously abused and never-abused respondents included. The results again showed a significant effect of sexual abuse on number of partners after the effects of all other factors were controlled

*Because relatively few teenagers were currently sexually abused, we reduced the number of family assets categories to four, to minimize the problem of small cell sizes; the four categories are zero, 1–2, 3–4 and five family assets.

†That there are so few individuals in this group in itself conveys important information. The next smallest subsample size was 22, for currently abused teenagers with 3–4 family assets.

($F[1, 8647]=93.72, p<.01$). Thus, the results do not support the position that the relationship between sexual abuse and number of sexual partners can be explained solely by other family processes.

Discussion

Our results provide clear support for the hypothesis that victims of sexual abuse are likely to have more sexual partners than other adolescents, and are consistent with results reported for adult survivors of sexual abuse, who are more likely than other adults to engage in sex with many different partners. Our data are also consistent with research on teenage parenthood showing that a disproportionate number of teenage mothers have been victims of sexual abuse,³³ although there are alternative interpretations.³⁴

An unusual feature of this analysis was that we were able to study a small group of adolescents who reported that they were currently in an abusive situation. Those who were currently experiencing sexual abuse reported having more sex partners during the past year (2.3), on average, than those who reported that they had been abused at a prior time (1.24). To some extent, the difference between these two groups may be a direct result of the recency of the sexual abuse: The perpetrator may have been counted as a sexual partner by at least some of the currently abused adolescents.

Unfortunately, the available data cannot tell us if this was the case. However, we know that at least one-third of those who were currently abused did not count the perpetrator as a sexual partner, as they reported having had no sexual partner during the past year; thus, it seems unlikely that this problem would completely explain the difference in mean number of sex partners between those previously abused and those currently abused.

Respondents who were currently being abused may have sought other partners as a way of coping with the pain of the experience, both through sexual pleasure and through feelings of emotional closeness. Our earlier analysis found that those who were currently being abused were also more likely than previously abused individuals to engage in binge drinking and to contemplate suicide, presumably in response to their current circumstances.³⁵ To cope with the trauma of sexual abuse, individuals may employ strategies that are potentially problematic or self-destructive.³⁶

An alternative explanation for the sexual behavior of victims of childhood sex-

ual abuse is that the experience leads to a precocious interest in sexual matters. This could lead them to engage in sex with more partners and explore sexual behavior at an earlier age than other teenagers. Further research of a more intensive nature will be needed to understand why victims of sexual abuse have more partners than their peers.

We also intended to explore in this article the possible influence of current family context on the number of sex partners—in particular, how adolescents' current family context may exacerbate or ameliorate the effects of sexual abuse on sexual behavior. Family variables (with the exception of parental support and parental education) were significant predictors of the number of partners, once other family factors were controlled.

It is not clear why maternal and paternal support were no longer significant predictors of the number of partners when other family variables and sexual abuse were controlled. One possibility is that maternal support and paternal support are correlated with each other ($r=.46$), and therefore that neither contributes uniquely to predicting number of partners when both are included in the regression analysis. To test this possibility, we created a parental support variable that combined information from both variables, and reran the analysis. The new variable was not significant when other family variables were controlled.

We also considered the possibility that parental support scores were confounded with other family variables, such as parental monitoring ($r=.46$ and $r=.37$, respectively). If parental monitoring is excluded from the analysis, however, both maternal support and paternal support are significant predictors of number of sex partners. Parents who are most supportive of their adolescents also tend to monitor their activities closely; thus, the relationship between parental support and number of partners is reduced to nonsignificance when parental monitoring is controlled.

Of greater interest than the effects of the family variables on number of sexual partners was the interaction between sexual abuse history and family context. The overall pattern of results showed that those who had experienced sexual abuse seemed to benefit the most from a supportive family context.

The results of our cumulative assets analysis provide further evidence that a very supportive family context may be especially beneficial to those who have experienced sexual abuse. Unfortunately, al-

though those who had been sexually abused may have had the most to gain from a supportive family context, they were less likely than those who had never been abused to have a high score on the family assets measure.

Although our data set afforded us an excellent opportunity to address the questions of interest, we should also note some limitations of the data. First, they were collected in one Midwestern state and the sample is predominantly white. Further research is needed to determine if the results of this study are generalizable to other groups in other regions of the country. Second, as with any such survey, we have no way to verify the accuracy of the adolescents' self-reports. It would be valuable to have additional information about the adolescents' circumstances and their abuse history from another source, but it would not be practical to collect such data in large-scale surveys such as this one. Moreover, we suspect that for many family variables (e.g., parental support), adolescents' perceptions of the family context may be more useful for explaining their behavior than a more "objective" appraisal of the context.

A third limitation is that other factors that may influence the adolescents' response to sexual abuse could not be examined with the data that were available. For example, we had no information on the perpetrator, the length and severity of the sexual abuse, whether the abuse had been disclosed and, if so, what occurred in the family and through the legal system. The recency of the abuse may be confounded with the length of abuse, in that those who were currently being abused may have been abused over a longer period of time than those who reported prior abuse. The response categories of the sexual abuse question also do not permit us to identify any adolescents who were currently being abused and who had been abused at an earlier time, possibly by another perpetrator.

Finally, we are not able to determine causal relations with these data, only the associations among variables. Thus, our results must be interpreted with appropriate caution, and alternative explanations of the data are plausible (e.g., having multiple sexual partners leads to a reduction in parental support).

Although we cannot determine causal relations, the interpretation of the results that we find most plausible is that a supportive family context can do much to mitigate the negative outcomes associated with sexual abuse. We suspect that many

factors contribute to the diverse outcomes that have been observed in numerous studies over the past 20 years among victims of child sexual abuse; it seems reasonable to us that one important factor is current family context. Our data are consistent with that interpretation. Clearly, though, there is a need for more research on factors that lead to successful outcomes in victims of sexual abuse. Such research is likely to prove valuable to those who provide services to victims of sexual abuse, and ultimately to the victims themselves.

References

1. J. H. Beitchman et al., "A Review of the Long-Term Effects of Child Sexual Abuse," *Child Abuse and Neglect*, **16**:101-118, 1992; and J. Briere and M. Runtz, "Childhood Sexual Abuse: Long-Term Sequelae and Implications for Psychological Assessment," *Journal of Interpersonal Violence*, **8**:312-330, 1993.
2. A. H. Green, "Child Sexual Abuse: Immediate and Long-Term Effects and Intervention," *Journal of the American Academy of Child and Adolescent Psychiatry*, **32**:890-902, 1993; and K. A. Kendall-Tackett, L. M. Williams and D. Finkelhor, "Impact of Sexual Abuse on Children: A Review and Synthesis of Recent Empirical Studies," *Psychological Bulletin*, **113**:164-180, 1993.
3. D. Tharinger, "Impact of Sexual Abuse on Developing Sexuality," *Professional Psychology: Research and Practice*, **21**:331-337, 1990.
4. K. A. Kendall-Tackett, L. M. Williams and D. Finkelhor, 1993, op. cit. (see reference 2).
5. M. E. Fromuth, "The Relationship of Childhood Sexual Abuse with Later Psychological and Sexual Adjustment in a Sample of College Women," *Child Abuse and Neglect*, **10**:5-15, 1986.
6. D. Boyer and D. Fine, "Sexual Abuse as a Factor in Adolescent Pregnancy and Child Maltreatment," *Family Planning Perspectives*, **24**:4-11, 1992; J. R. Butler and L. M. Burton, "Rethinking Teenage Childbearing: Is Sexual Abuse a Missing Link?" *Family Relations*, **39**:73-80, 1990; and J. S. Musick, *Young, Poor, and Pregnant: The Psychology of Teenage Motherhood*, Yale University Press, New Haven, CT, 1993.
7. S. A. Small and T. Luster, "Adolescent Sexual Activity: An Ecological, Risk-Factor Approach," *Journal of Marriage and the Family*, **56**:181-192, 1994.
8. A. H. Green, 1993, op. cit. (see reference 2).
9. J. N. Briere and D. M. Elliott, "Immediate and Long-Term Impacts of Child Sexual Abuse," *The Future of Children*, Vol. 4, No. 2, 1994, pp. 54-69.
10. A. H. Green, 1993, op. cit. (see reference 2).
11. U. Bronfenbrenner, "Ecological Systems Theory," in R. Vasta, ed., *Annals of Child Development*, Vol. 6, JAI Press, Greenwich, CT, 1989.
12. J. N. Briere and D. M. Elliott, 1994, op. cit. (see reference 9); D. Finkelhor, "Early and Long-Term Effects of Child Sexual Abuse: An Update," *Professional Psychology: Research and Practice*, **21**:325-330, 1990; and K. A. Kendall-Tackett, L. M. Williams and D. Finkelhor, 1993, op. cit. (see reference 2).
13. J. R. Conte and J. R. Schuerman, "Factors Associated with an Increased Impact of Child Sexual Abuse," *Child Abuse and Neglect*, **11**:201-211, 1987; and D. Finkelhor and L. Berliner, "Research on the Treatment of Sexually Abused Children: A Review of Recommendations," *Journal of the American Academy of Child and Adolescent Psychiatry*, **34**:1408-1423, 1995.
14. J. N. Briere and D. M. Elliott, 1994, op. cit. (see reference 9).
15. K. A. Kendall-Tackett, L. M. Williams and D. Finkelhor, 1993, op. cit. (see reference 2).
16. T. Luster and S. A. Small, "Sexual Abuse History and Problems in Adolescence: Exploring the Effects of Moderating Variables," *Journal of Marriage and the Family*, **59**:131-142, 1997; and T. P. Moeller, G. A. Bachman and J. R. Moeller, "The Combined Effects of Physical, Sexual, and Emotional Abuse During Childhood: Long-Term Health Consequences for Women," *Child Abuse and Neglect*, **17**:623-640, 1993.
17. D. Finkelhor and L. Berliner, 1995, op. cit. (see reference 13); and K. A. Kendall-Tackett, L. M. Williams and D. Finkelhor, 1993, op. cit. (see reference 2).
18. J. Henry, "Systems Trauma: Children Following Disclosure of Sexual Abuse," unpublished doctoral dissertation, Michigan State University, East Lansing, MI, 1994; and K. A. Kendall-Tackett, L. M. Williams and D. Finkelhor, 1993, op. cit. (see reference 2).
19. D. Finkelhor and L. Berliner, 1995, op. cit. (see reference 13).
20. T. Luster and S. A. Small, 1997, op. cit. (see reference 16).
21. K. A. Kendall-Tackett, L. M. Williams and D. Finkelhor, 1993, op. cit. (see reference 2); and D. Finkelhor and L. Berliner, 1995, op. cit. (see reference 13).
22. J. Jaccard, P. J. Dittus and V. V. Gordon, "Maternal Correlates of Adolescent Sexual and Contraceptive Behavior," *Family Planning Perspectives*, **28**:159-165 & 185, 1996; and S. A. Small and T. Luster, 1994, op. cit. (see reference 7).
23. R. M. Baron and D. A. Kenny, "The Moderator-Mediator Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations," *Journal of Personality and Social Psychology*, **51**:1173-1182, 1986.
24. J. Jaccard, P. J. Dittus and V. V. Gordon, 1996, op. cit. (see reference 22); K. Moore, J. L. Peterson and F. F. Furstenberg, Jr., "Parental Attitudes and the Occurrence of Early Sexual Activity," *Journal of Marriage and the Family*, **48**:37-46, 1986; and S. A. Small and T. Luster, 1994, op. cit. (see reference 7).
25. J. N. Briere and D. M. Elliott, 1994, op. cit. (see reference 9).
26. P. E. Mullen et al., "The Long-Term Impact of Physical, Emotional, and Sexual Abuse of Children: A Community Study," *Child Abuse and Neglect*, **20**:7-21, 1996.
27. T. Luster and S. A. Small, 1997, op. cit. (see reference 16).
28. D. Finkelhor, "Current Information on the Scope and Nature of Child Sexual Abuse," *The Future of Children*, Vol. 4, No. 2, 1994, pp. 31-53.
29. S. A. Small and D. Kerns, "Unwanted Sexual Activity Among Peers During Early and Middle Adolescence: Incidence and Risk Factors," *Journal of Marriage and the Family*, **55**:941-952, 1993.
30. R. M. Baron and D. A. Kenny, 1986, op. cit. (see reference 23).
31. J. Jaccard, R. Turrisi and C. K. Wan, *Interaction Effects in Multiple Regression*, Sage, Newbury Park, CA, 1990.
32. K. A. Kendall-Tackett, L. M. Williams and D. Finkelhor, 1993, op. cit. (see reference 2).
33. D. Boyer and D. Fine, 1992, op. cit. (see reference 6); J. R. Butler and L. M. Burton, 1990, op. cit. (see reference 6); and J. S. Musick, 1993, op. cit. (see reference 6).
34. M. Roosa et al., "The Relationship of Childhood Sexual Abuse to Teenage Pregnancy," *Journal of Marriage and the Family*, **59**:119-130, 1997.
35. T. Luster and S. A. Small, 1997, op. cit. (see reference 16).
36. J. N. Briere and D. M. Elliott, 1994, op. cit. (see reference 9).