

Abused Boys, Battered Mothers, and Male Involvement in Teen Pregnancy

Robert F. Anda, MD, MS*; Vincent J. Felitti, MD, FACP‡; Daniel P. Chapman, PhD, MSc*; Janet B. Croft, PhD*; David F. Williamson, MS, PhD*; John Santelli, MD*; Patricia M. Dietz, DrPH, MPH*; and James S. Marks, MD, MPH*

ABSTRACT. *Background.* The relationship between boyhood exposure to physical abuse, sexual abuse, or to a battered mother and subsequent risk of impregnating a teenage girl has not previously been examined.

Methods. In a retrospective cohort study set in a primary care clinic for adult members of a large health maintenance organization, questionnaire responses from 4127 men were analyzed. Respondents provided the age of the youngest female whom they had impregnated, their own ages at the time, and information regarding childhood exposure to physical or sexual abuse and battered mothers. We calculated the prevalence and adjusted odds ratio (OR) for having impregnated a teenage girl according to these 3 adverse childhood experiences, regardless of the male's age at the time of impregnation. Using logistic regression, ORs were adjusted for the male's age at time of survey, race, and education.

Results. Nineteen percent of the men reported that they had ever impregnated a teenage girl. During childhood, 32% of respondents had been physically abused, 15% sexually abused, and 11% had battered mothers. Compared with respondents reporting no abuse, frequent physical abuse or battering of mothers increased the risk of involvement in teen pregnancy by 70% (OR: 1.7; 95% confidence interval [CI]: 1.2–2.5) and 140% (OR: 2.4; 95% CI: 1.1–5.0), respectively. Sexual abuse as a boy at age 10 years or younger increased the risk of impregnating a teenage girl by 80% (OR: 1.8; 95% CI: 1.3–2.4); sexual abuse with violence increased the risk by 110% (OR: 2.1; 95% CI: 1.2–3.4). We found a dose–response relationship between the number of types of exposures and the risk of impregnating a teenage girl; men who reported all 3 types of exposures were more than twice as likely to have been involved than those with no exposures (OR: 2.2; 95% CI: 1.4–3.5).

Conclusions. Boyhood exposure to physical or sexual abuse or to a battered mother is associated with an increased risk of involvement in a teen pregnancy—during both adolescence and adulthood. Because these exposures are common and interrelated, boys and adult men who have had these experiences should be identified via routine screening by pediatricians and other health care providers and counseled about sexual practices and contraception. Such efforts may prevent teen pregnancy and the intergenerational transmission of child abuse and

domestic violence. *Pediatrics* 2001;107(2). URL: <http://www.pediatrics.org/cgi/content/full/107/2/e19>; adolescent pregnancy, child abuse, domestic violence.

ABBREVIATIONS. ACE, adverse childhood experience; OR, odds ratio; CI, confidence interval; AAP, American Academy of Pediatrics.

With an estimated 500 000 teenagers giving birth annually in the United States,¹ assessment of risk factors for teen pregnancy assumes an important role in the practice of pediatrics. Although poverty² and childhood physical^{3–7} and sexual^{1–8} abuse have been associated with an increased risk of pregnancy among adolescent girls, risk factors for male involvement in teen pregnancy have not been widely investigated. Elevated rates of academic and conduct problems, substance abuse,^{9,10} previous forced sexual contact,¹¹ and a greater number of sexual partners¹² have been reported among teenage fathers, which may be symptoms of childhood exposure to abuse and domestic violence.^{9,10} However, because the prevalence of exposure to childhood abuse among teenage fathers has not been previously investigated, no conclusions about the potential relevance of childhood abuse to teen paternity can be drawn.

Moreover, an estimated 25% of males involved in teen pregnancies are no longer teenagers themselves.^{13,14} Relative to pregnant adolescent girls with same-age partners, those with older partners are more likely to have initiated sexual intercourse before 13 years of age, to have used marijuana in the previous month, and to desire their current pregnancy.¹³ Although demographic characteristics of men involved in teen pregnancies have been delineated,¹⁴ no previous research has examined the prevalence of childhood exposure to abuse and domestic violence in this population.

To better address these issues, we analyzed data from 4127 men who provided reproductive histories and information about childhood exposure to abuse as part of the Adverse Childhood Experiences (ACE) Study.¹⁵ Because of the considerable prevalence of adult male involvement in teen pregnancy, we included males who were >19 years old when they impregnated a teenage girl. Because exposure to sexual abuse, physical abuse, and witnessing maternal battery have all been linked to sexual behavior^{16–25}

From the *National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, Georgia; and the ‡Department of Preventive Medicine, Southern California Permanente Medical Group, Kaiser Permanente, San Diego, California.

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Reprint Requests to (R.F.A.) Center for Chronic Disease Prevention, K-47, 4770 Buford Hwy, NE, Atlanta, GA 30341-3717. E-mail: rfa1@cdc.gov
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and frequently co-occur,^{15,26} we examined the associations between exposure to these events with the probability of impregnating a teenage girl.

METHODS

The ACE Study was designed to assess the impact of ACEs on a wide range of health behaviors—including sexual and reproductive behaviors—as well as on long-term health outcomes and health care utilization.¹⁵

Setting and Survey Methods

The ACE Study is a retrospective cohort study being conducted in San Diego at Kaiser Permanente's Health Appraisal Clinic. A recent review of membership and utilization records among Kaiser members in San Diego continuously enrolled between 1992 and 1995 showed that most (81%) of those 25 years of age and older had been evaluated in the Health Appraisal Clinic.

The ACE Study was approved by the institutional review boards of the Southern California Permanente Medical Group (Kaiser-Permanente), the Emory University School of Medicine, and by the Office of Protection from Research Risks, National Institutes of Health. All 13 494 Kaiser members who received standardized medical evaluations at the Health Appraisal Clinic in August through November of 1995 or January through March of 1996 were eligible to participate in the ACE Study. Those evaluated at the clinic during December were not included, because survey response rates are known to be lower during the holiday period.²⁷ Respondents completed mailed questionnaires and were provided with both assurances of confidentiality and that their responses would not become part of their medical record. The response rate for males in the present survey was 69.2% (4/6354).

Male Involvement in Teen Pregnancy

The following set of questions was used to assess male involvement in teen pregnancy: "Have you ever gotten someone pregnant?" If the answer was "yes," respondents were asked, "What was the age of the youngest woman you ever got pregnant?" and "How old were you then?" Any male who reported an age ≤ 19 years for the youngest woman who he ever got pregnant was defined as having been involved in a teen pregnancy, regardless of his age at the time.

Exposure to Childhood Abuse or Battered Mothers

Two questions from the Conflicts Tactics Scale²⁸ were used to define boyhood physical abuse: "Sometimes parents or other adults hurt children. While you were growing up in your first 18 years of life, how often did a parent, stepparent, or adult living in your home: 1) push, grab, slap, or throw something at you?; 2) hit you so hard that you had marks or were injured?"

Possible responses to both questions were: "never," "once or twice," "sometimes," "often," or "very often." We considered childhood physical abuse to have occurred if the response to the first question was "sometimes," "often," or "very often" or the response to the second question was anything other than "never."

Four questions adapted from Wyatt²⁹ were used to define contact sexual abuse during childhood: "Some people, while they are growing up in their first 18 years of life, had a sexual experience with an adult or someone at least 5 years older than themselves. These experiences may have involved a relative, family friend, or stranger. During your first 18 years of life, did an adult, relative, family friend, or stranger ever: 1) touch or fondle your body in a sexual way?; 2) have you touch their body in a sexual way?; 3) attempt to have any type of sexual intercourse with you (oral, anal, or vaginal)?; 4) actually have any type of sexual intercourse with you (oral, anal, or vaginal)?" Sexual abuse was defined by a "yes" response to any of these 4 questions. We also asked the age at which the abuse first occurred and whether any form of coercion or violence was used by the perpetrator.

The questionnaire also included 4 questions from the Conflicts Tactics Scale,²⁸ which we used to define battering of the respondent's mother during childhood: "While you were growing up in your first 18 years of life, how often did your father, stepfather, or mother's boyfriend do any of these things to your mother or stepmother?: 1) push, grab, slap, or throw something at her?; 2)

kick, bite, hit her with a fist, or hit her with something hard?; 3) repeatedly hit her over at least a few minutes?; 4) threaten her with a knife or gun, or use a knife or gun to hurt her?"

Possible responses to these 4 questions were: "never," "once or twice," "sometimes," "often," or "very often." We defined a mother as having been battered if the response to the first or second questions was "sometimes," "often," or "very often," or if the response to the third or fourth question was anything other than "never."

Exclusions

Of the 4399 males who responded to the mail survey, we excluded 27 (.6%) whose race was not identified and 9 (.2%) whose educational attainment was not reported. We also excluded 128 men (2.9%) who did not answer the questions about impregnating a female, 60 (1.4%) who did not provide the age of the youngest female they had impregnated, 38 (.9%) who had impregnated a female and provided her age but did not provide their own age at the time, and 10 men who met our definition of sexual abuse but whose age at first abuse was older than the age at which they were involved in a teen pregnancy. After these exclusions, the final study sample included 94% of the men who responded to the survey (4127/4399).

Data Analysis

Descriptive statistics included frequencies of selected sociodemographic characteristics; unadjusted prevalences of boyhood sexual abuse, physical abuse, and violent treatment of mothers; and a history of impregnating a teenage girl. Logistic regression analysis³⁰ was used to adjust for the potential confounding effects of age, race, and educational attainment on the relationships between the 3 categories of ACE and involvement in a teen pregnancy.

We analyzed adolescent (≤ 19 years old) and adult (≥ 20 years) male involvement in teen pregnancy separately. Having a subgroup of men who were ≥ 20 years old when they were first involved in a teen pregnancy allowed us to analyze the effects of the 2 exposures (physical abuse and battering of their mothers) in a group in which these exposures necessarily occurred before their involvement in a teen pregnancy. It also permitted us to explore the relationship between the 3 adverse childhood exposures and involvement in a teen pregnancy as an adult, which is important because most teen pregnancies involve adult males.³¹⁻³⁴ We also assessed the relationship between these 3 exposures and the risk of impregnating girls ≤ 17 years old and girls 18 to 19 years old.

We also examined the relationship between the frequency and severity of the exposure to adverse childhood events and the risk of involvement in a teenage pregnancy. Finally, we examined the effects the number of these exposures on the probability of having impregnated a teenage girl.

RESULTS

The mean age of the 4127 men at the time of the survey was 58.0 years (standard deviation: 14.5 years; median: 59.4 years; range: 19-94 years); 81.2% were white. Forty-nine percent had graduated from college; only 5.7% had not graduated from high school. Seventy-eight percent were currently married, 7% were currently divorced, 6% had never married, 4% were living with a partner, 3% were widowed, and 1% were separated.

Prevalence of Childhood Exposures

Almost one third of the men (32%) reported childhood physical abuse; 15% reported sexual abuse; and 11% reported having a battered mother (Table 1). Overall, 43.3% of men had been exposed to at least 1 of these 3 types of adverse experiences; 30.8% experienced only 1 type, 10.1% experienced 2, and 2.3% experienced all 3 types.

The prevalence of each of the combinations of the 3 exposures are presented in Table 2. Of the males

TABLE 1. Prevalence of Exposure to Childhood Physical or Sexual Abuse or to a Battered Mother by Questionnaire Item and Category of Exposure

Exposure	Item* (%)	Category (%)
Physical abuse (2 questions)		32.3
Sometimes, often, or very often pushed, grabbed, slapped, shoved, or had things thrown at him	25.8	
Ever hit so hard he had marks or was injured	20.0	
Sexual abuse (4 questions)		14.9
Touched or fondled in a sexual way	12.8	
Had him touch the perpetrator in a sexual way	9.0	
Attempted intercourse (oral, anal, or vaginal)	7.9	
Actually had intercourse (oral, anal, or vaginal)	7.2	
Battered mother (4 questions)		11.0
Mother sometimes, often, or very often, pushed, grabbed, slapped, shoved, or had things thrown at her	9.6	
Mother sometimes, often or very often, kicked, bitten, hit with a fist, or hit with something hard	5.4	
Mother ever repeatedly hit over at least a few minutes	5.3	
Mother ever threatened with a knife or gun or hurt with a knife or gun	1.9	

* Item percentages are not mutually exclusive.

TABLE 2. Prevalence of Combinations of Exposure to Childhood Physical or Sexual Abuse or to a Battered Mother

Combinations of Exposures	Percentage
None	56.7
1 exposure	
Physical abuse only	20.5
Sexual abuse only	7.2
Battered mother only	3.1
2 exposures	
Physical and sexual abuse	4.6
Physical abuse and battered mother	4.8
Sexual abuse and battered mother	.7
All 3 exposures	
Physical and sexual abuse and battered mother	2.3

who had been physically abused, 21% had also been sexually abused and 22% had grown up with a battered mother; 47% of males who had been sexually abused had also been physically abused. Of males who had grown up with a battered mother, 71% had been abused physically or sexually.

Prevalence of Involvement in a Teen Pregnancy

Overall, 781 of the men (19%) reported ever impregnating a teenage girl. The mean age at which the males impregnated a teenage girl was 20.7 years (standard deviation: 3.8 years; median: 20 years); 59% were ≥ 20 years old at the time the pregnancy occurred. Fifty-three percent of these men reported an age of first marriage that was older than their age at the time the teen pregnancy occurred, 40% reported being married at the same age or younger, 3% had never married, and 4% had incomplete marital histories.

The age of the 781 teenage girls who were reportedly impregnated ranged from 12 to 19 years (mean: 17.8 years; standard deviation: 1.2 years; median: 18 years). Sixteen percent of the girls were 12 to 16 years old; 16%, 17 years old; 32%, 18 years old; and 36% were 19 years old.

Physical Abuse and Involvement in Teen Pregnancy

Respondents who had a history of childhood physical abuse were more likely to have been involved in a teen pregnancy than those who did not (22.5% vs 17.2%; adjusted odds ratio [OR]: 1.3; 95% confidence interval [CI]: 1.1,1.6). For both of the questions about physical abuse, the likelihood of involvement in a teen pregnancy was positively associated with the frequency of abuse ($P < .001$; Table 3). Men who had experienced physical abuse most frequently were 1.7 times more likely to have been involved in a teen pregnancy than those who had not experienced this form of abuse.

Sexual Abuse

Men with a history of contact sexual abuse were more likely to have been involved in a teen pregnancy than those without this history (25.5% vs 17.8%; adjusted OR: 1.5; 95% CI: 1.2,1.8). Men for whom sexual abuse had occurred by age 10 years had an 80% increased risk of involvement in a teen pregnancy; sexual abuse that involved threats or violence on the part of the perpetrator more than doubled the odds of involvement in a teen pregnancy (Table 4).

Battered Mothers

Men whose mothers had been battered were more likely to have been involved in a teen pregnancy than those whose mothers had not been battered (28.0% vs 17.8%; adjusted OR: 1.5; 95% CI: 1.2,1.8). For 3 of the 4 questions about violence against mothers (all but the question about use of a knife or gun), the likelihood of involvement in a teen pregnancy was associated with increasing frequency of violence ($P < .001$; Table 5). For these 3 questions, men whose mothers had been battered most frequently had an approximate doubling of their likelihood of impregnating a teenage girl.

Independent and Combined Effects of Exposures

We estimated the prevalence of involvement in a teen pregnancy for each of the 8 possible combina-

TABLE 3. Relationship of Type and Frequency of Childhood Physical Abuse to the Risk of Having Impregnated a Teenage Girl

Type and Frequency of Physical Abuse	Sample Size (n)	Impregnated Teenage Girl (%)	Adjusted OR* (95% CI)
Push, grab, shove, slap, or throw something at you			
Never	(2222)	17.1	1.0 (Referent)
Once or twice	(840)	18.8	1.2 (.9–1.4)
Sometimes	(917)	21.7	1.3 (1.1–1.6)
Often or very often	(148)	39.7	1.7† (1.2–2.5)
Hit you so hard that you had marks or were injured			
Never	(3674)	17.4	1.0 (Referent)
Once or twice	(438)	22.8	1.4 (1.1–1.8)
Sometimes	(329)	26.8	1.6 (1.2–2.0)
Often or very often	(57)	33.3	1.7† (1.0–3.1)

* ORs adjusted for age at the time of the survey, race, and educational attainment.

† The graded relationship between frequency of abuse and involvement in a teen pregnancy is statistically significant ($P < .001$).

TABLE 4. Relationship of Childhood Sexual Abuse to the Risk of Having Impregnated a Teenage Girl

	Sample Size (n)*	Impregnated Teenage Girl (%)	Adjusted OR† (95% CI)
Age when first sexually abused			
Not sexually abused	(3514)	17.6	1.0 (Referent)
16–18 y	(132)	23.5	1.4 (.9–2.1)
11–15 y	(239)	24.7	1.4 (1.0–2.0)
≤10 y	(222)	29.7	1.8‡ (1.3–2.4)
Coercion or violence by perpetrator			
Not sexually abused	(3514)	17.8	1.0 (Referent)
Abused, no coercion	(328)	23.8	1.3 (1.0–1.8)
Abused, tricked, persuaded, or given alcohol or drugs	(211)	25.1	1.5 (1.1–2.1)
Abused, threatened with harm, or physical force used	(74)	33.8	2.1‡ (1.2–3.4)

* Sample sizes differ for age data and coercion or violence data because of missing values. Twenty males whose age at first abuse were not included in the analysis of age at time of abuse.

† Separate logistic models were done for the assessment of age when first abuse occurred and coercion or violence. ORs adjusted for age at survey, race, and educational attainment.

‡ The graded relationships between earlier ages at time of sexual abuse or use of coercion or violence and involvement in teen pregnancy are statistically significant ($P < .01$).

tions of the 3 exposures). Each of the categories of single exposure had an increased risk of involvement over no exposure; men with 2 and 3 types of exposure had progressively elevated ORs.

Using these results, we performed logistic regression analysis controlling for the men's age at the time of the study, race, sex, and educational attainment to assess the relationship of the number of types of exposures (none, 1, 2, or 3) to involvement in a teen pregnancy. We found a positive graded relationship between the number of exposures and the risk of involvement; for example, men with all 3 childhood exposures were more than twice as likely to have been involved than those who had none (Table 6A).

In separate analyses of men who were adolescents (≤ 19 years old) and adults (≥ 20 years old) at the time of involvement in teen pregnancy, we again found positive graded relationships (Table 6B). The adolescent group had slightly stronger associations between adverse environmental exposures and involvement in a teen pregnancy than the adult group. Similarly, the risk of involvement with younger teenage

girls (≤ 17 years old) was somewhat stronger than for older teenage girls (ages 18–19 years; data not shown).

DISCUSSION

Our results suggest that more frequent exposure to physical abuse, a battered mother, or sexual abuse that occurs at younger ages or involves threats or violence all approximately double a male's risk of impregnating a teenage girl—during both adolescence and adulthood. Furthermore, the impact of abusive or violent childhood exposures is cumulative. These findings assume particular importance as these types of boyhood exposures are common, interrelated,^{15,26} frequently overlooked,³⁵ and likely contribute to the intergenerational transmission of abuse and domestic violence.³⁶ The American Academy of Pediatrics (AAP) has advocated pediatricians assume an important role in child violence prevention to promote optimal child health and development.³⁷ Our results further suggest that continued vigilance on the part of pediatricians to identify both boys and girls exposed to abuse or domestic violence

TABLE 5. Relationship of Witnessing Maternal Battery to the Risk of Having Impregnated a Teenage Girl, by Type and Frequency of Maternal Battery

Type and Frequency of Battery	Sample Size (n)	Impregnated Teenage Girl (%)	Adjusted OR* (95% CI)
Pushed, grabbed, slapped or thrown at			
Never	(3294)	17.9	1.0 (Referent)
Once or twice	(435)	18.9	1.0 (.8–1.3)
Sometimes	(307)	24.8	1.2 (.9–1.6)
Often or very often	(91)	35.2	1.8† (1.2–2.9)
Kicked, bitten, hit with fist, hit with something hard			
Never	(3727)	18.1	1.0 (Referent)
Once or twice	(175)	21.7	1.1 (.7–1.6)
Sometimes	(175)	28.0	1.4 (1.0–2.1)
Often or very often	(50)	40.0	2.1† (1.2–3.9)
Hit repeatedly over at least a few minutes			
Never	(3899)	18.1	1.0 (Referent)
Once or twice	(102)	35.3	1.9 (1.2–3.0)
Sometimes	(95)	25.3	1.1 (.7–1.8)
Often or very often	(31)	45.2	2.4† (1.1–5.0)
Threatened with a knife or gun or had a knife or gun used to hurt her			
Never	(4047)	18.7	1.0 (Referent)
Once or twice	(60)	30.0	1.6 (.9–2.8)
Sometimes	(14)	35.7	1.4 (.4–4.7)
Often or very often	(6)	33.3	1.2 (.2–6.8)

* ORs adjusted for age at the time of the survey, race, and educational attainment.

† The graded relationship between frequency of maternal battery and involvement in a teen pregnancy is statistically significant ($P < .01$).

seems to be a vital component of teen pregnancy prevention. Pediatricians need to routinely screen for ACEs in their patients and vigorously treat affected children for their numerous and serious sequelae.^{15,35}

Diverse pathways may lead from the exposures that we described to involvement in teen pregnancy. On average, both boys and girls who are abused have more sexual partners and earlier ages at first intercourse than their peers.^{17–25,38,39} In addition, a history of abuse has been associated with drug or alcohol use,^{8,17,38} including drinking alcohol before sex.¹⁹ Males who impregnate teenage girls are more likely to be emotionally troubled, to be substance abusers, and to have done more poorly in school than their peers.^{12,40–43} These characteristics may be markers that such males may have been exposed to abuse or domestic violence as children, and the forms of dysfunctional family life that accompany these exposures.¹⁵

Because of the retrospective nature of our survey,

TABLE 6A. Relationship of the Number of Types of ACEs to the Risk of Ever Impregnating a Teenage Girl

Number of Adverse Experiences*	Sample Size (n)	Percent	Adjusted OR†
0	(2339)	16.4	1.0 (Referent)
1	(1273)	19.4	1.2 (1.0–1.4)
2	(419)	27.9	1.7 (1.3–2.2)
3	(96)	35.4	2.2‡ (1.4–3.5)

* The experiences include: childhood physical abuse, sexual abuse or exposure to maternal battery.

† ORs adjusted for age, race, and educational attainment.

‡ The graded relationship between the number of exposures and the risk of impregnating a teenage girl is statistically significant ($P < .001$).

we were unable to assess the impact of some factors potentially influencing the risk of involvement in teen pregnancy including attitudes toward paternity and contraception during adolescence and young adulthood^{44–46} and characteristics of the teenage girls who were impregnated.^{47–49} In addition, some males may have been unaware of teen pregnancies that they caused; others who knew that they impregnated a teenage girl may not have admitted it or may have misstated the age of the youngest female who they impregnated. Sexual abuse was likely underreported in this study; several studies of documented sexual abuse have found substantial underreporting.^{50,51} Finally, the mean age of our respondents was 58 years, which may have resulted in poor recall and consequent underreporting of childhood experiences. However, if both the childhood exposures and involvement in teen pregnancy were underreported in this investigation, our results would underestimate the strength of the association between them.

Although our study participants were predominantly white, well-educated, and possessed sufficient economic or social resources to be enrolled in the Kaiser Health Plan, the frequency of abuse exposures they reported are consistent with those found in previous North American community studies. We found that 16% of the men met the case definition for sexual abuse; in a recent nationally representative study of adults, 15% of men reported childhood sexual abuse.⁵² We found that 32% of the men had been physically abused as boys; a recent population-based study in Ontario that used questions from the same scales that we used estimated that 31% of the male population had suffered childhood physical abuse.⁵³

Abuse in childhood or witnessing the battering of one's mother may have consequences extending be-

TABLE 6B. Relationship of the Number of Types of ACEs to the Risk of Ever Impregnating a Teenage Girl

Age of Girls Years*	Age of Males							
	All Males* Girls 18 to 19 Years* (n = 3873) (n = 3639)		Males ≤19 Years* (n = 3378)		Males ≥20 Years* (n = 3639)		Girls ≤17 Years (n = 3378)	
	Number of Exposures	Percent	Adjusted OR†	Percent	Adjusted OR†	Percent	Adjusted OR†	Percent
0	16.1	1.0 (Referent)	6.7	1.0 (Referent)	10.8	1.0 (Referent)	5.3	1.0 (Referent)
1	19.4	1.2 (1.0–1.4)	8.8	1.2 (.9–1.6)	12.7	1.2 (.9–1.5)	7.3	1.3 (1.●●●)
2	27.7	1.7 (1.3–2.2)	15.1	2.1 (1.5–3.0)	17.1	1.6 (1.1–2.1)	12.6	2.2 (1.●●●)
3	35.4	2.2 (1.4–3.5)	21.5	2.7 (1.5–4.9)	21.5	1.9 (1.1–3.3)	18.4	2.7 (1.●●●)

* The first column includes all men in the study sample. The second column excludes males who reported impregnating a teenage girl after age 19; the third column excludes males who reported impregnating a teenage girl before age 20; the fourth column excludes girls whose age was reported to be ≤17 years; and the fifth column excludes girls whose age was reported to be 18 to 19 years.

† The exposures include: childhood physical abuse, sexual abuse, or exposure to maternal battery. The graded relationship between the number of exposures and the risk of impregnating a teenage girl is statistically significant for every column ($P < .001$).

‡ ORs adjusted for age, race, and educational attainment.

yond those suggested by our results. First, children of teenage mothers are more likely to be abused or neglected because of the social, financial, and emotional stressors of teenage motherhood.^{54,55} Second, youth with a history of exposure to abuse and domestic violence are more likely to subsequently perpetrate violence or display antisocial behavior.^{56–61} Finally, childhood experience of sexual abuse or witnessing domestic violence has been linked to the perpetration of sexual violence during adolescence.⁶² Thus, males who were exposed to childhood abuse and domestic violence may contribute to an intergenerational cycle of these exposures.^{7,36}

Data from the current study and a previous publication from the ACE Study¹⁵ show that child abuse and maternal battering frequently co-occur. Others have found an increased risk of abuse among the children of battered mothers^{62,63} and evidence that spouse abusers are more likely to abuse their children,^{64,66} and the AAP has identified the recognition and treatment of abused women as an important component of child abuse prevention.⁶⁷ Noting that physicians often avoid inquiring about abuse,⁶⁸ the American Medical Association has issued diagnostic and screening guidelines concerning child abuse and neglect.⁶⁹ Using American Medical Association domestic violence screening questions in the pediatric office setting, Siegel et al⁷⁰ found that 31% of women accompanying their children for a well-child visit reported a lifetime history of domestic violence and concluded that domestic violence screening among pediatricians is very productive.

Moreover, communication among physicians needs to be integrated; practitioners of adult and emergency medicine who identify battered women must communicate better with pediatricians, and pediatricians who see abused children must communicate better with the physicians who treat their patients' parents. Increased training of physicians in the recognition and management of child abuse and domestic violence is urgently needed.⁷¹ Our data suggest that the medical care of boys and men should include routine assessment of sexual and physical abuse, exposure to domestic violence, as

well as counseling regarding sexual practices and contraception among those who have had these experiences. However, further research examining the efficacy of these and other interventions in this population is needed. To assist pediatricians in these efforts, the AAP has issued comprehensive guidelines for the evaluation of sexual abuse in children including history, physical examination, and relevant laboratory findings⁷² and for adolescent pregnancy prevention.⁷³

CONCLUSION

Boyhood exposure to physical abuse, sexual abuse, or to a battered mother is associated with an increased risk of impregnating a teenage girl, which likely contributes to the intergenerational transmission of these experiences. Thus, by including assessment of these exposures as part of standardized medical evaluation, pediatricians could potentially improve their effectiveness in teen pregnancy prevention.

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