

Sexual Abuse of Boys

Definition, Prevalence, Correlates, Sequelae, and Management

William C. Holmes, MD, MSCE; Gail B. Slap, MD, MS

Objective.—To clarify the definition of sexual abuse of boys, update estimates of its prevalence, and explore critically its reported correlates, sequelae, and management.

Data Sources.—Studies from 1985 to 1997 were identified using OVID-MEDLINE and OVID-CINAHL. The search terms used were *sexual abuse*, *sexual victimization*, and *sexual assault*. Constraints applied included English language, human male subjects, age younger than 19 years, and North American samples.

Study Selection.—Publications were included for review if they appeared in peer-reviewed journals; had clear research designs; reported results for at least 20 male subjects; and were not reviews, perspectives, theoretical treatises, editorials, or letters.

Data Extraction.—Study types and sampling methods were categorized using well-established definitions. Preference was given to studies with large samples, with case-control or cohort designs, and/or with adjustment for effect modifiers or confounders.

Data Synthesis.—We identified 166 studies representing 149 sexual abuse samples. Studies were methodologically limited and definitions of sexual abuse varied widely. Prevalence estimates varied widely (by definition used and population studied), ranging from 4% to 76%. Boys at highest risk were younger than 13 years, nonwhite, of low socioeconomic status, and not living with their fathers. Perpetrators tended to be known but unrelated males. Abuse frequently occurred outside the home, involved penetration, and occurred more than once. Sequelae included psychological distress, substance abuse, and sexually related problems. Evaluation of management strategies was limited.

Conclusions.—Sexual abuse of boys appears to be common, underreported, underrecognized, and undertreated. Future study requires clearer definitions of abuse, improved sampling, more rigorous data collection, more sophisticated data analyses, and better assessment of management and treatment strategies. Regardless, health care professionals should be more aware of and sensitive to the possibility of sexual abuse in their male patients.

JAMA. 1998;280:1855-1862

SEXUAL ABUSE of young and adolescent girls has been well studied, with a consequent keen awareness of the existing and potential abuse of girls. In contrast, a relative silence about the abuse of young and adolescent boys exists. This has fostered a belief, among both health professionals and society at large, that

the problem is uncommon and the outcomes are not severe.^{1,2} Recent events suggest otherwise. In the past year alone, there have been several widely publicized stories of boys whose alleged homicidal acts were propelled, at least in part, by their own sexual abuse histories.^{3,4} Greater attention to male sexual abuse and its potential outcomes appears warranted.

In a 1984 review, Finkelhor⁵ estimated that 3% to 4.8% of males in the United States had a history of prepubertal sexual contact with an adult male. Perpetrators tended to be unrelated acquaintances or strangers, and victims tended to have families of origin that were poor, physically abusive, and only 1 parent. When public authorities were contacted about the abuse, reports were

made to the police rather than child protective services. Boys were less likely than girls to report sexual abuse because of the fear of retribution, the social stigma against homosexual behavior, the desire to appear self-reliant, and the concern about loss of independence following disclosure. Finkelhor⁵ postulated that male underrepresentation in commonly studied databanks from child protection agencies reflected both low reporting overall and preferential reporting to less commonly studied police records.

See also p 1864 and Patient Page.

Studies of male sexual abuse have increased since 1984. Their definitions of abuse, methods, and findings vary widely. The objectives of this review are to clarify the definition of male sexual abuse; to estimate its prevalence; and to explore critically the reported victim, perpetrator and event characteristics, sequelae, and management.

LITERATURE SEARCH

Studies on male sexual abuse cited in OVID-MEDLINE and OVID-CINAHL, from 1985 to 1997, were identified using the search terms *sexual abuse*, *sexual victimization*, and *sexual assault*. Search results were limited to English language, human male subjects, and age younger than 19 years. Bibliographies were cross-referenced. Publications were included for review if they appeared in peer-reviewed journals; had clear research designs; reported results for at least 20 male subjects; were not reviews, perspectives, dissertation abstracts, editorials, and letters; and were conducted inside North America. Studies of mixed sex samples that did not report male subsample results were excluded. The sample for review consisted of 166 studies.⁶⁻¹⁷¹ A total of 149 sexual abuse samples were represented in these reviewed studies (a number of publications used the same sample but reported unique findings). Some studies included for review had sampled men. All of these studies, however, re-

From the Division of General Internal Medicine, Department of Medicine (Drs Holmes and Slap), Center for Clinical Epidemiology and Biostatistics (Drs Holmes and Slap), Leonard Davis Institute (Drs Holmes and Slap), and the Craig-Dalsimer Program in Adolescent Medicine, Departments of Medicine and Pediatrics (Dr Slap), University of Pennsylvania School of Medicine and The Children's Hospital of Philadelphia, Philadelphia.

Reprints: William C. Holmes, MD, MSCE, Center for Clinical Epidemiology and Biostatistics, University of Pennsylvania School of Medicine, 733 Blockley Hall, 423 Guardian Dr, Philadelphia, PA 19104-6021 (e-mail: holmeswc@mail.med.upenn.edu).

ported adult recollections and outcomes of childhood and/or adolescent sexual abuse.

Study designs and sampling methods were categorized using well-established definitions.^{172,173} Studies with mixed-sex samples were categorized according to the methods applied to the male subsample. Study characteristics of samples used more than once were counted only once.

LITERATURE QUALITY

Ninety-four studies (63%) were cross-sectional (or repeated cross-sectional), 38 (26%) were case series, 12 (8%) were case-control, 2 (1%) were cohort, 2 (1%) were longitudinal, and 1 (1%) was meta-

analytical. Sampling techniques were nonprobability in 103 studies (69%), probability in 27 (18%), and unspecified in 19 (13%).

The median sample size was 159 male subjects. Twenty-two studies (15%) reported results from large male samples (>1000 subjects each), 3 of which included 16 000 to 60 000 subjects. Eight percent of the study samples had 500 to 999 male subjects, 38% had 100 to 499 subjects, 21% had 50 to 99 subjects, and 18% had 20 to 49 subjects. No investigators presented sample-size calculations or power analyses.

Descriptive statistics (eg, proportions, rates) about nonrepeated samples were reported in 137 studies (92%). Measures of association (eg, χ^2 tests, correlation coefficients) were used in 57 studies (38%). Univariate inferential statistics (eg, *t* tests, analysis of variance, and nonparametric equivalents) were used in 21 studies (14%), multivariate inferential statistics (eg, multivariate regression, discriminant function, and factor analyses) in 12 (8%), and both types of statistics in 10 (7%). Given the methodological variation and limitations of the studies, a review of the literature by meta-analysis was inappropriate.¹⁷⁴

DEFINITION OF SEXUAL ABUSE

The definition of sexual abuse used by investigators varied widely. To explore this variability, we developed the classification system shown in Tables 1 and 2. Studies first were categorized according to whether and how subjects were asked about their sexual abuse histories

(Table 1). Some investigators did not ask subjects at all (eg, they used child abuse registries that used others' explorations of and definitions for sexual abuse) or did not report how they asked subjects. Others used either subjective or objective methods of asking subjects about their abuse experiences. Some investigators then applied additional criteria before defining reported experiences as abusive, such as a minimum age differential between victim and perpetrator (Table 2). This age differential varied across studies, from simply child vs adult, to a fixed number of years, to a graded number of years that increased with victim age. Other investigators required the presence of real or perceived coercion, a negative reaction by the victim, physical contact, and/or penetration.

More than 30 different combinations of history-elicitation methods and additional criteria requirements were used. Investigators did not question subjects directly or did not report the methods by which subjects were questioned in 72 studies (48%). Subjective questioning was used in 40 studies (27%) and objective questioning in 37 (25%). An age differential was required in 49 studies (33%) (of these, the differential was unspecified in 14 [29%], fixed in 30 [61%], and graded in 5 [10%]). The additional criterion of physical contact was required in 17% of studies, coercion in 11%, authority in 5%, reaction in 3%, and penetration in 2%.

PREVALENCE

In a national telephone survey of men aged 18 years or older in the United States, Finkelhor et al⁴⁸ found that 16% reported a history of sexual abuse in response to objective questioning. A population-based study from Ontario, also using objective questioning, found 7% of men reported a sexual abuse history.⁹⁷ The other large-sample prevalence studies (>1000 subjects), most of which questioned younger subjects in schools, reported rates of 4% to 16%.^{*} Nelson et al¹¹² reported a rate of abuse in the previous week of 2% among 9th- to 12th-grade boys in Oregon. In other large-sample studies using less generalizable samples, 5% of 1296 homeless men, 34% of 1001 men who had sex with men attending a sexually transmitted disease clinic, and 39% of 1574 sexually offending juvenile males reported histories of sexual abuse.^{9,37,89,141} The only large-scale, nationally representative study of the incidence of sexual abuse in young and adolescent boys was completed for 1986. It found an estimated incidence

Table 1.—Whether and How Subjects Were Asked About Sexual Abuse Histories

Type of Questioning	Description
None	There was either no reported method of asking about sexual abuse or investigators depended on inquiries of an agency (eg, child protection agency) whose methods were not reported.
Subjective	Subjects were asked whether they had ever been sexually abused, assaulted, or victimized, but these terms were not defined; responses depended on subjects' definition of these terms.
Objective	Subjects were asked whether they had ever been sexually abused, assaulted, or victimized; these terms were either defined for subjects (eg, definitions of exhibitionism, fondling, attempted intercourse) or were described in case scenario fashion.

Table 2.—Additional Criteria Used by Some Investigators to Define Male Sexual Abuse

Criterion	Description
Age differential	Unspecified: Sexual abuse was determined by asking if someone, when he was a "child," ever had a sexual experience with an "adult." "Child" and "adult" ages were sometimes clarified as being younger than 18 years or 18 years or older, respectively. A 17-year-old "child" could be victimized by an 18-year-old "adult" in these schemata.
	Fixed: Determination of abuse was based on the difference between victim and perpetrator ages. The age difference used did not vary with the age of the victim. A 5-year difference was frequently used. For example, a 3-year-old child was victimized by someone 8 years or older, and a 15-year-old adolescent was victimized by someone 20 years or older.
	Graded: Similar to the fixed method, except that the age difference varied with the age of the victim. Typically, this meant for a victim younger than 13 years, a perpetrator had to be at least 5 years older. For a victim aged 13 to 16 years, a perpetrator had to be at least 10 years older.
Coercion	This criterion required that, either in whole or in part, sexual experiences had to involve some element of coercion to be defined as abusive. A modification of this was that there may not have been blatant coercion, but the victim may have perceived the perpetrator to be more powerful.
Reaction	Sexual experiences that a subject immediately or retrospectively viewed in a negative way were defined as sexual abuse. "Negative" sometimes was left to the interpretation of the subject or defined, for example, as fear and shock vs interest and pleasure.
Authority figure	Any experience in which a child was sexually involved with an authority figure was defined as sexual abuse. Both "child" and "authority figure" were sometimes undefined. If defined, "authority figure" was often described as a parent, parent-surrogate, caregiver, or teacher.
Physical contact	This criterion posited that sexual abuse did not occur unless actual physical contact took place. This precluded potentially traumatic experiences such as exhibitionism or sexual requests.
Penetration	This criterion for sexual abuse referred to the anal penetration of the victim, or the anal or vaginal penetration of the perpetrator by the child.

*References 7, 12, 64, 68, 70, 90, 95, 110, 112, 128, 148.

rate of 1 (SE, 0.31) per 1000 young and adolescent boys.²⁸

In a study of male college students, Fromuth and Burkhart²⁹ found that the prevalence estimates of childhood sexual abuse were directly related to the definition of abuse. Prevalence was 22% when either a graded age differential or coercion was required, 14% when only the former was required, and 10% when both were required. Prevalence fell further to 8% when physical contact was required. Other studies reported that prevalence fell by 24% to 73% when the physical contact criterion was applied.^{22,36,67,93,163}

Sample characteristics also affected the reported rates of sexual abuse. McCormack et al¹⁰² reported rates of 76% for serial rapists.²² Rates of 41% to 43% were reported in other samples of sex offenders.^{91,140,167} Lower rates (22%-33%) were found in non-sex-offending juvenile delinquents and detainees.^{29,90,140} Rates of 17% to 39% were reported in samples of men who had sex with men.^{24,72,93,123} Surveys of runaway adolescent boys revealed rates of 21% to 38%, up to 4 times higher than rates found in school-based samples.^{47,65,81} The rates among male psychiatric inpatients and outpatients were similar at 24% to 40%.^{11,20,77,79,99,108} A large sample of clients from substance abuse centers reported a rate of 29%.⁸⁰ The rate of a Native American sample was 14%.¹³⁰

Rate estimates were also affected by the methods of data collection. Chart review of psychiatric inpatients yielded a low prevalence rate of 6%, while face-to-face interviews in the same population yielded a rate of 26%.^{26,79} Computerized and paper questionnaires completed by male Canadian university students yielded rates of 14% and 8%, respectively, with 90% of subjects reporting more honesty via computer questioning than either paper or face-to-face interview.⁶ The comparative benefit of telephone interviewing was not estimated.

Rohsenow et al¹³³ studied programmatic effects on the estimated prevalence of sexual abuse in an inpatient chemical dependency rehabilitation site. The method of taking histories evolved from no systematic questioning about abuse to routine inquiry of all patients. Rates increased from 0% to 4% in the first period to 18% to 23% in the final phase. Other investigators have validated these findings.¹⁴⁹

VICTIM CHARACTERISTICS

Large sample studies suggest several common characteristics of male sexual abuse victims. The mean and median ages of first sexual abuse were 9.8 years and 10 years, and 58% of boys were younger than 11 years.^{37,48,128} Boys who were nonwhite, lived only with their mothers, or lived

with no parents were at increased risk for sexual abuse.^{37,63,96,110} Siegel et al¹⁴⁸ noted that non-Hispanics had a higher sexual abuse rate than Hispanics (6.5% vs 3.2%; $P = .04$). MacMillan et al⁹⁷ noted no relationship between sexual abuse and parental education level or community size.

Studies with smaller or less generalizable samples were more varied in their reports of victim characteristics. Reported mean age of first abuse was 5.3 to 8.5 years in studies of children.* In a study of adolescents, the mean age of reported abuse onset was older (10 years for those abused by males and 11.9 years for those abused by females).⁸⁴ A study of adults recalling their abuse histories noted a similar age of onset of 9.8 years.¹²⁸ Other studies indicated that while the range of ages at which abuse began was broad—from infancy to adulthood—most abuse began before puberty.† More than 63% of adult subjects from 7 studies reported onset between infancy and 13 years.^{53,93,118,130,137,151,159}

Most small-sample studies indicated that nonwhite males were more likely to be abused than white males.^{107,109,121,124} One study suggested that black males were less likely to be abused by females than white males.⁸⁴

Family factors that increased a boy's risk for sexual abuse included living with only 1 or neither parent; parental divorce, separation, or remarriage; parental alcohol abuse; and parental criminal behavior.‡ Sexually abused boys were 15 times more likely than nonabused boys to have family members who also had been sexually abused ($P = .001$).⁶³

Many small-sample studies reported an association between socioeconomic status and male sexual abuse. Resnick and Blum¹²⁴ found that sexual intercourse prior to age 10 years was associated with low socioeconomic status ($P < .001$). Violato and Genuis¹⁵⁹ reported an association between male sexual abuse and paternal unemployment or unskilled labor ($P < .05$). Pierce and Pierce¹¹⁷ found that 52% of sexually abused young and adolescent boys had mothers receiving public assistance. Finally, Faller⁴⁶ noted that boys abused by relatives were more than twice as likely to be of low socioeconomic status than those abused by non-relatives ($P = .003$).

One study suggested that disabled boys may be sexually abused more frequently than nondisabled boys ($P = .07$).¹⁵⁰ Another study reported that 7% of sexually abused males had delayed recall of the abusive experience.¹⁰⁴

*References 27, 38, 46, 74, 76, 88, 117, 132, 151.

†References 33, 37, 46, 72, 100, 104, 106, 111, 127, 144, 145, 151, 164.

‡References 8, 81, 91, 102, 106, 110, 124, 135, 146, 151, 165.

PERPETRATOR AND EVENT CHARACTERISTICS

Large-sample studies reported that 53% to 94% of perpetrators were men, with up to half of female perpetrators being adolescent-aged babysitters.^{37,48,128,141,148} Small-sample studies revealed a similar predominance of male perpetrators. One study noted that 98% of these male perpetrators self-identified as heterosexual.⁸² Studies of children and young adolescents reported that more than 90% of perpetrators were male.^{88,86,92,121,143,151,154} Studies of older adolescents and young adults reported lower rates of male perpetrator abuse (22% to 73%), and rates of female perpetrator abuse from 27% to 78%.^{53,84,106,140,159} Studies of adult samples reported intermediate male perpetrator rates of 63% to 90%.^{24,72,73,77,113,114,132} These findings may suggest that males revise their perceptions as they age such that abusive sexual experiences with females become defined, retrospectively, as normative rather than abusive.

Large-sample studies reported that 54% to 89% of perpetrators were extrafamilial, and that 21% to 40% of these perpetrators were not known to victims.^{37,48,68,95,123,148} Small-sample studies also reported that more than half of perpetrators were extrafamilial, but noted that less than 6% were strangers.^{76,93,121,132,154} Boys younger than 6 years were at greatest risk for abuse by family and acquaintances; boys older than 12 years faced an increasing risk of extrafamilial abuse by strangers.^{37,48,60} Findings by Lenderking et al⁹³ suggested that up to 97% of the abuse of adolescent boys (>13 years) is extrafamilial.

The literature varied widely on the reported duration of sexual abuse. Several studies reported that abuse was a 1-time occurrence in 46% to 93% of cases (3 of these were large-sample studies that reported 1-time rates of 46%-73%).^{7,48,53,123,144,147} Many boys (17%-53%), however, reported chronic abuse.^{7,98,99,128,151} Durations of abuse ranged from less than 6 months to 18 to 48 months.^{48,60,73,74,88,113}

Male victims typically described 3 or more types of sexually abusive acts, including forced anal penetration of the victim or perpetrator, vaginal penetration of the perpetrator, orogenital contact of or by the perpetrator, manual-genital contact of or by the perpetrator, and exhibitionism.¹¹⁷ Anal penetration was reported by 37% to 70% of victims in 13 studies, but by less than a third in 9 other studies.* Anal penetrative abuse was more likely to be repeated than other types of sexual abuse.¹²⁸ It was re-

*References 27, 37, 41, 48, 53, 72, 73, 76, 77, 88, 93, 100, 102, 106, 121, 128-130, 144, 145, 164.

ported by less than 10% of subjects victimized prior to age 2 years compared with 71% victimized at ages 9 to 11 years.¹²¹ Rhynard et al¹²⁶ reported that 5% of male high school students had been forced to have intercourse while on a date (date rape). This study did not report perpetrators' sex.

Most studies reported that orogenital contact occurred at rates (12%-55%) similar to penetration: 15% to 38% of victims were fellated, and 12% to 35% of victims were forced to perform fellatio or cunnilingus.* Fondling (by and of the perpetrator) was the most frequently reported act (55%-91% of cases), and exhibitionism was the least frequently reported act (as low as 6% of cases).^{41,48,88,93,100,106,145} Rhynard et al¹²⁶ reported that 13% of male high school students had been fondled without consent while on a date. Rates of fondling and exhibitionism probably were underestimated throughout the reviewed literature since subjects were often instructed to describe only the most violating or disturbing act that occurred during an abusive event.

Many studies reported that physical force occurred in 10% to 25% of abuse events, although 4 studies reported higher rates of 32% to 56%.† Moisan et al¹⁰⁶ reported that weapons were used in 10% of the abuse events of black and Hispanic adolescent boys. Threats of physical force or harm increased with victim age and male perpetration.^{129,147} Female perpetrators used persuasion rather than actual or threatened force in 91% of cases, and 26% promised special favors to boys for participation.^{74,84,147} Up to one third of abused boys said curiosity led to their participation.¹²⁸

Histories of concomitant physical and sexual abuse were common. Seven studies, including 1 large population-based study, noted that 36% to 68% of sexually abused males were also physically abused.^{64,70,97,100,104,138,164} One study reported a lower rate of 20%.¹⁹ Two studies, one of 911 US Army soldiers, reported that histories of physical abuse were more common in men with than without histories of sexual abuse (44%-68% vs 13%-47%; $P < .001$).^{104,136} Males who were sexually abused by family members were at highest risk of concurrent physical abuse.¹⁰² Family members of boys who were sexually abused also were more likely to be physically abused.^{63,143}

SEQUELAE

Negative responses to sexual abuse were reported by only 15% to 39% of

male victims and were associated with the use of force, a greater perpetrator-victim age difference, an older perpetrator, and a younger victim.^{97,68} Several other studies reported that two thirds of subjects perceived the abuse experiences as negative (especially if male perpetrated or involving penetration or fondling), with 63% reporting disabling obsessive thoughts about the abuse and 54% to 68% recounting strongly adverse life effects.^{79,83,84,128} Rew et al¹²⁵ reported that young men with histories of contact sexual abuse scored in the severely distressed range using a valid and reliable measure of well-being.

Victims who did not experience negative reactions to their abuse experiences had either positive reactions or were equally split between positive and neutral reactions.^{63,64,114} Of those with positive reactions, 91% recalled the events as physically pleasurable.¹¹⁴ Other factors associated with positive responses included age older than 12 years, longer duration, and female perpetration (88% abused by an adult female viewed the experience as a positive one).^{37,67,114} A meta-analysis ($N = 2451$) reported that sexual abuse was not associated with poor subjective health in males.⁵⁹

Studies of actual clinical outcomes (rather than perceptions), however, indicated that sexually abused males were at increased risk for negative clinical sequelae. These sequelae included increased rates of posttraumatic stress disorder, major depression, anxiety disorders, borderline personality disorder, antisocial personality disorder, paranoia, dissociation, somatization, bulimia, anger, aggressive behavior, poor self-image, poor school performance, running away from home, and legal trouble.* The rates among sexually abused compared with nonabused males were 4-fold for major depression ($P < .001$); 3-fold for bulimia ($P < .05$); and at least 2-fold for antisocial personality disorder ($P = .002$), behavior problems ($P = .03$), low self-image ($P = .04$), runaway behavior ($P < .001$), and legal problems ($P = .001$).^{63,91,110,112,130,165} Rates of posttraumatic stress disorder and major depression among victims were 25% to 30% and 65%, respectively.^{130,145,165} Paris et al¹¹⁶ noted that sexual abuse was a significant, independent risk factor for the development of borderline personality disorder.

The rate of attempted suicide was 1.5 to 14 times higher among sexually abused compared with nonabused males.† Remafedi et al¹²³ found that sexual abuse did

not predict attempted suicide in a sample of gay or bisexual males after controlling for the age of sexual identity identification, illicit drug use history, and presence of feminine gender role.

A strong association between sexual abuse and subsequent substance use also was reported. Harrison et al⁶³ found that sexually abused boys compared with nonabused boys in an inpatient chemical addiction center were more likely to report use of alcohol before age 10 years, marijuana use before age 12 years, and current drug use. Nagy et al¹¹⁰ noted that sexually abused compared with nonabused high school boys were 2 times more likely to use alcohol currently and 5 times more likely to use drugs currently ($P < .05$). In a similar sample, Nelson et al¹¹² reported that current use of alcohol, marijuana, and cocaine were 2, 4, and 10 times higher ($P < .001$). Sexually abused and sexually and physically abused sixth-grade boys reported rates of multisubstance abuse that were 12 and 44 times greater than nonabused boys ($P < .001$); 12th-grade boys within the same abuse groupings reported rates that were 3 and 10 times greater ($P < .001$).⁶⁴ In another study, the rate of injection drug use was up to 2 times higher ($P < .001$).^{8,171} The increase in injection drug use was reported to begin during adolescence.⁷² Many other studies, in both institutional and community settings, supported these findings.* Some investigators postulated that the increased use of psychoactive substances reflected an attempt by abused males to self-medicate.^{63,75}

Sexually abused males compared with nonabused males were up to 5 times more likely to report sexually related problems (including sexual dysfunction).^{63,71,73,83,84,132,147} Abused males indicated greater difficulty controlling sexual feelings, were hypersexual, and were more likely to perpetrate coercive sexual acts against others.† Those abused at an early age and the chronically abused were more likely to exhibit these behavior problems.¹⁰⁰ Lodico et al⁹⁵ reported that sexually abused males compared with nonabused males were 4.4 times more likely (95% confidence interval, 2.6-7.4) to have forced someone into sexual contact, and other studies reported that these forced acts typically were with boys.^{169,167} Becker et al⁹ measured the erectile responses of abused and nonabused men while they listened to descriptions of coercive and noncoercive sexual activities with children of both

*References 27, 37, 41, 53, 72, 76, 88, 100, 106, 117, 121, 129, 145.

†References 14, 31, 37, 48, 53, 106, 128, 132, 144.

*References 7, 8, 13, 16, 20, 21, 52, 58, 63, 68, 70, 71, 73, 75, 81, 91, 106, 110, 112, 116, 123, 124, 130, 132, 136, 145, 164-166.

†References 7, 8, 14, 16, 19, 35, 63, 68, 91, 110, 112, 123, 124, 165.

*References 8, 28, 31, 32, 43, 68, 70, 75, 130, 131, 145, 149, 165.

†References 10, 22, 49, 55, 68, 75, 81, 91, 100, 129, 140, 143, 153.

sexes. Abused men responded more to descriptions involving boys, while there was no difference in the responses to descriptions involving girls. In other studies, abused compared with nonabused males were more likely to report sex with siblings and, in more than half the cases, with younger brothers.^{91,102,168}

Abused compared with nonabused males also were reported to engage more frequently in high-risk sexual behaviors such as prostitution and unprotected anal intercourse.^{8,21,24,93,171} They had more lifetime sexual partners, used condoms less frequently, and had higher rates of sexually transmitted diseases and partner pregnancy.^{8,93,110,112,124,161,171} Several studies reported that abused compared with nonabused men had up to a 2-fold increase in the rate of human immunodeficiency virus infection.^{8,56,171}

Numerous investigators reported that sexually abused compared with nonabused males experienced more gender role confusion and more fears about intimate relationships with both men and women.^{73,79,81,101,143} Richardson et al¹²⁷ found that the gender roles reported by 90 sexually abused adolescent boys were undifferentiated in 52%, masculine in 23%, androgynous in 19%, and feminine in 6%. Abused adolescents, particularly those victimized by males, were up to 7 times more likely to self-identify as gay or bisexual than peers who had not been abused ($P < .001$).^{83,84} No longitudinal studies examined the causal relationship between abuse and gender role or sexual orientation, however. Gender role nonconformity and gay or bisexual identity may precede abuse. For example, males exploring their sexual identity may do so in venues, such as public sex environments, where abuse may happen more frequently. Adult men with histories of abuse were twice as likely to be unmarried than nonabused men ($P = .03$).¹¹⁸

Given the evidence of numerous adverse clinical outcomes following sexual abuse, the positive and neutral perceptions of many male sexual abuse victims are perplexing. Hunter et al⁷⁴ reported that males who were older when victimized were less likely to blame the perpetrator ($P < .01$), and males involved in more coercive experiences were more likely to blame themselves ($P < .01$). Perhaps abused males perceive that they have failed to meet a social expectation of self-protection. Rather than accept the failing, they may minimize the event itself. The experience of physical pleasure, as well, may complicate reactions after abuse.

MANAGEMENT

Males who had been sexually victimized were not likely to speak about the

experience. Johnson and Shrier^{83,147} reported that none of the 40 abused adolescent boys from an adolescent medicine clinic had ever told their primary care providers about their abuse histories, and only 15% had ever told anyone. Most other studies reported similarly low rates (10%-33%) of disclosure.^{14,24,116,132} A referral center for abuse cases reported that only one third of boys brought in for evaluation divulged their abuse histories spontaneously.¹²¹

The reasons for silence included wanting to forget about the event, wanting to protect the perpetrator, and fearing the reactions of those who were told about the abuse.^{24,147} A follow-up study revealed that 17 adolescent boys who had disclosed extrafamilial sexual abuse felt pressured, threatened, or rejected after the disclosure; experienced parental blame and punishment; and regretted the disclosure.²¹ Perhaps as a result, 76% had run away from home and more than 50% had dropped out of school by the time of follow-up. External validation of these reported self-perceptions were suggested in a study by Broussard and Wagner.¹⁸ Male university students, responding to sexual abuse vignettes presented in a questionnaire, attributed significantly less responsibility to perpetrators when the victims were male rather than female.

Actions taken to help abused males were limited. Of validated intrafamilial sexual abuse cases reported to a protective services unit, 56% involved police, 16% resulted in perpetrator imprisonment, and 4% resulted in victim removal from the abusive home.¹¹⁷ Only 56% of victims were referred for mental health treatment, and only half of those referred actually received care. Other studies reported similar findings. Police involvement was infrequent (13%), rates of postdisclosure medical examinations were low (20%-58%), and male sexual abuse cases were prosecuted less often than female sexual abuse cases.^{117,129,167} Two studies reported, however, that when abused boys were offered post-abuse counseling, 73% to 77% attended at least 1 session.^{66,156}

The low rates of disclosure and the poor management of detected cases suggest a need to educate health care providers and others who work with boys in the recognition, reporting, evaluation, and treatment of sexual abuse. Unfortunately, no reports on effective education programs for clinicians have been published. One study did report that male clinicians were less likely than female clinicians to believe sexual abuse allegations, regardless of the victim's sex.⁷⁸ The development and study of educational efforts, then, may need to be ad-

justed for clinician sociodemographic characteristics.

Two simple, process-related interventions that increased the recognition of sexual abuse were reported. In studies of adult males at substance abuse centers, detection of sexual abuse was increased when patients were screened both at admission and at other times during their treatment programs.^{138,149} Whether increased detection changed program or patient outcomes was unevaluated.

The reviewed literature did not clarify the usefulness of physical examination in the detection of male sexual abuse. As expected, the sensitivities of physical findings were low when examinations were performed long after a single episode of sexual abuse.^{175,176} While one study reported that 86% of boys presenting within 3 days of a single abuse event had anal erythema, abrasions, lacerations, or fissures (and sperm identified on rectal swabs in 27% of cases), other studies reported substantially lower rates (5%-34%).^{25,76,121,151} Genital findings (penile/scrotal erythema, bruises, abrasions, lacerations, and/or bites) were reported in only 2% to 18% of males with single episodes of abuse.^{38,121,129} Among males with repeated abuse, 24% to 90% had the following signs or symptoms: encopresis, enuresis, or dysuria; rectal patulousness or impaction; anal erythema, fissures, tears, or hyperpigmentation.^{121,151} Whether abused once or multiple times, boys younger than 2 years were most likely to have physical findings.¹²¹

Abnormal laboratory findings were similarly unreliable. Cultures of the throat, penis, or anus were positive for *Neisseria gonorrhoeae* in 7% of victims of chronic sexual abuse.^{121,129,151} Human immunodeficiency virus seropositivity was identified in 10 males from 209 child abuse evaluation centers over the course of 3 years.⁵⁷ Despite low sensitivity, however, the specificity and positive predictive value of findings such as these would be high in a prepubertal population.

All published evaluations of acute and long-term medical and psychological treatment strategies for sexually abused males suffered methodologically. The studies were seriously limited by small samples, incomplete follow-up, inadequate or no controls, and inappropriate outcome measures.

COMMENT

The objectives of this review were to clarify the definition of sexual abuse of boys; to update the prevalence estimates of this abuse; and to explore its correlates, sequelae, and management. The literature was small and methodologically limited. Methods of eliciting abuse

histories frequently were poorly described or done subjectively, definitions of abuse varied widely, sampling techniques were generally poor, and few studies controlled for effect modifiers and confounders. Consequently, prevalence estimates were discrepant, associations confounded, and causal inferences not feasible.

Large-sample studies and consistent findings across the literature, however, do allow some preliminary, albeit inconclusive, statements to be made about male sexual abuse. While boys across the sociodemographic spectrum appear to be at risk for sexual abuse, boys at highest risk for abuse are younger than 13 years, nonwhite, of low socioeconomic status, and not living with their fathers. Perpetrators tend to be males who are known but frequently unrelated to the victims. The abuse typically occurs outside the home, is repeated, and involves penetration. Sequelae fall into 3 categories: psychological distress, substance abuse, and sexually related problems (such as sexual dysfunction, hypersexuality, sexually aggressive behavior, and confused sexual identity). Legal and clinical actions taken after disclosure of abuse are severely lacking.

While methodologically improved research is needed in all aforementioned areas, this need is most striking in the evaluation of management strategies. Future studies of management and treatment strategies will require long-term follow-up with control groups and with objective measures of psychosocial and sexual function.

A prerequisite to improving research methods in this field in general is clarification and standardization of how investigators ask subjects about and define male sexual abuse. Objective questioning should be the norm, with terms for sexual organs clearly used (eg, penis) and acts described in simple, graphic language. At a minimum, an investigator's definition should incorporate victim age, age difference between the victim and perpetrator, and type of sexual contact. Additional criteria should be given strong consideration, even if a subject is not considered abused by the investigator's primary definition. These criteria include use of force, penetration, and negative psychological and behavioral outcomes. The definition must also consider perpetration by women more carefully, particularly when passive coercion is used. Furthermore, careful consideration must be given to abusive experiences that have been redefined by the victim as normative, whether because of perpetration by a female, protection against self-blame, or confusion resulting from reactive erectile responses and/or pleasure experi-

enced during the abusive event. Dependence solely on the self-definition of abuse by male subjects should not occur.

The sexual abuse of boys is common, underreported, underrecognized, and undertreated. Negative sequelae are highly prevalent and may contribute to the evolution from young victim to older perpetrator. Future study requires better methods of eliciting sexual abuse histories, clearer definition of abuse, improved sampling, more rigorous data collection, more sophisticated analyses to control for effect modifiers and confounders, and separate analyses and reporting of male subjects. Such study can then guide the development of interventions that are focused and effective. Until then, health care professionals should be aware of and sensitive to the possibility of sexual abuse in their male patients.

The manuscript was prepared, in part, while Dr Slap was a fellow at the Center for Advanced Study in the Behavioral Sciences, Stanford University, Palo Alto, Calif. Support for the fellowship was provided by the Henry J. Kaiser Family Foundation, Menlo Park, Calif (84R-2459-HPE), and the Carnegie Corporation of New York, NY (grant B-6346).

References

- Eisenberg N, Owens RG, Dewey ME. Attitudes of health professionals to child sexual abuse and incest. *Child Abuse Negl.* 1987;11:109-116.
- Hibbard RA, Zollinger TW. Medical evaluation referral patterns for sexual abuse victims. *Child Abuse Negl.* 1992;16:533-540.
- Associated Press. Sex abuse is claimed in school slayings case. *The New York Times.* April 7, 1998: A18.
- McFadden RD. Suspect in New Jersey strangling was reportedly sex-case victim. *The New York Times.* October 3, 1997:A1.
- Finkelhor D. Boys as victims: review of the evidence. In: *Child Sexual Abuse: New Theory and Research.* New York, NY: The Free Press; 1984: 150-170.
- Bagley C, Genus M. Psychology of computer use, XX, sexual abuse recalled: evaluation of a computerized questionnaire in a population of young adult males. *Percept Mot Skills.* 1991;72:287-288.
- Bagley C, Bolitho F, Bertrand L. Mental health profiles, suicidal behavior, and community sexual assault in 2112 Canadian adolescents. *Crisis.* 1995; 16:126-131.
- Bartholow BN, Doll LS, Joy D, et al. Emotional, behavioral, and HIV risks associated with sexual abuse among adult homosexual and bisexual men. *Child Abuse Negl.* 1994;18:747-761.
- Becker JV, Hunter JA, Stein RM, Kaplan MS. Factors associated with erection in adolescent sex offenders. *J Psychopathol Behav Assess.* 1989;11: 353-362.
- Becker J, Stein RM. Is sexual erotica associated with sexual deviance in adolescent males? *Int J Law Psychiatry.* 1991;14:85-95.
- Bernstein DP, Ahluvalia T, Pogge D, Handelsman L. Validity of the childhood trauma questionnaire in an adolescent psychiatric population. *J Am Acad Child Adolesc Psychiatry.* 1997;36:340-348.
- Boney-McCoy S, Finkelhor D. Prior victimization: a risk factor for child sexual abuse and for PTSD-related symptomatology among sexually abused youth. *Child Abuse Negl.* 1995;19:1401-1421.
- Boney-McCoy S, Finkelhor D. Psychosocial sequelae of violent victimization in a national youth sample. *J Consult Clin Psychol.* 1995;63:726-736.
- Boudewyn AC, Liem JH. Childhood sexual abuse as a precursor to depression and self-destructive behavior in adulthood. *J Trauma Stress.* 1995; 8:445-459.
- Boyd CJ, Blow F, Orgain LS. Gender differences among African-American substance abusers. *J Psychoactive Drugs.* 1993;25:301-305.
- Briere J, Evans D, Runtz M, Wall T. Symptomatology in men who were molested as children: a comparison study. *Am J Orthopsychiatry.* 1988;58: 457-461.
- Briere J, Smiljanich K, Henschel D. Sexual fantasies, gender, and molestation history. *Child Abuse Negl.* 1994;18:131-137.
- Broussard SD, Wagner WG. Child sexual abuse: who is to blame? *Child Abuse Negl.* 1988;12:563-569.
- Brown GR, Anderson B. Psychiatric morbidity in adult inpatients with childhood histories of sexual and physical abuse. *Am J Psychiatry.* 1991; 148:55-61.
- Brown LK, Kessel SM, Lourie KJ, Ford HH, Lipsitt LP. Influence of sexual abuse on HIV-related attitudes and behaviors in adolescent psychiatric inpatients. *J Am Acad Child Adolesc Psychiatry.* 1997;36:316-322.
- Burgess AW, Hartman CR, McCormack A. Abused to abuser: antecedents of socially deviant behaviors. *Am J Psychiatry.* 1987;144:1431-1436.
- Burgess AW, Hazelwood RR, Rokous FE, Hartman CR, Burgess AG. Serial rapists and their victims: reenactment and repetition. *Ann N Y Acad Sci.* 1988;528:277-295.
- Cappelleri JC, Eckenrode J, Powers JL. The epidemiology of child abuse: findings from the Second National Incidence and Prevalence Study of Child Abuse and Neglect. *Am J Public Health.* 1993; 83:1622-1624.
- Carballo-Dieguez A, Dolezal C. Association between history of childhood sexual abuse and adult HIV-risk sexual behavior in Puerto Rican men who have sex with men. *Child Abuse Negl.* 1995;19:595-605.
- Clayton RN, Barth KL, Shubin CI. Evaluating child sexual abuse: observations regarding on-genital injury. *Clin Pediatr (Phila).* 1989;28:419-422.
- Cole C. Routine comprehensive inquiry for abuse: a justifiable clinical assessment procedure? *Clin Soc Work J.* 1988;16:33-42.
- Cupoli JM, Sewell PM. One thousand fifty-nine children with a chief complaint of sexual abuse. *Child Abuse Negl.* 1988;12:151-162.
- Dembo R, Dertke M, La Voie L, Borders S, Washburn M, Schmeidler J. Physical abuse, sexual victimization and illicit drug use: a structural analysis among high risk adolescents. *J Adolesc.* 1987;10: 13-33.
- Dembo R, Williams L, Berry E, et al. The relationship between physical and sexual abuse and illicit drug use: a replication among a new sample of youths entering a juvenile detention center. *Int J Addict.* 1988;23:1101-1123.
- Dembo R, Dertke M, Borders S, Washburn M, Schmeidler J. The relationship between physical and sexual abuse and tobacco, alcohol, and illicit drug use among youths in a juvenile detention center. *Int J Addict.* 1988;23:351-378.
- Dembo R, Williams L, La Voie L, et al. Physical abuse, sexual victimization and illicit drug use: replication of a structural analysis among a new sample of high-risk youths. *Violence Victims.* 1989;4:121-138.
- Dembo R, Williams L, La Voie L, et al. A longitudinal study of the relationships among alcohol use, marijuana/hashish use, cocaine use, and emotional/psychological functioning problems in a cohort of high-risk youths. *Int J Addict.* 1990;25:1341-1382.
- Desenclos JA, Garrity D, Wroten J. Pediatric gonococcal infection: Florida, 1984 to 1988. *Am J Public Health.* 1992;82:426-428.
- Deykin EY, Buka SL, Zeena TH. Depressive illness among chemically dependent adolescents. *Am J Psychiatry.* 1992;149:1341-1347.
- Deykin EY, Buka SL. Suicidal ideation and attempts among chemically dependent adolescents. *Am J Public Health.* 1994;84:634-639.
- DiTomasso MJ, Routh DK. Recall of abuse in

- childhood and three measures of dissociation. *Child Abuse Negl.* 1993;17:477-485.
37. Doll LS, Joy D, Bartholow BN, et al. Self-reported childhood and adolescent sexual abuse among adult homosexual and bisexual men. *Child Abuse Negl.* 1992;16:855-864.
 38. Dubé R, Hébert M. Sexual abuse of children under 12 years of age: a review of 511 cases. *Child Abuse Negl.* 1988;12:321-330.
 39. Dubowitz H, Black M, Harrington D. The diagnosis of child sexual abuse. *AJDC.* 1992;146:688-693.
 40. Eckenrode J, Munsch J, Powers J, Doris J. The nature and substantiation of official sexual abuse reports. *Child Abuse Negl.* 1988;12:311-319.
 41. Ellason JW, Ross CA, Sainton K, Mayran LW. Axis I and II comorbidity and childhood trauma history in chemical dependency. *Bull Menninger Clin.* 1996;60:39-51.
 42. Elliott DM, Briere J. Posttraumatic stress associated with delayed recall of sexual abuse: a general population study. *J Trauma Stress.* 1995;8:629-647.
 43. Embree BG, DeWit ML. Family background characteristics and relationship satisfaction in a Native community in Canada. *Soc Biol.* 1997;44:42-54.
 44. Erickson PI, Rapkin AJ. Unwanted sexual experiences among middle and high school youth. *J Adolesc Health.* 1991;12:319-325.
 45. Faller KC. Criteria for judging the credibility of children's statements about their sexual abuse. *Child Welfare.* 1989;67:389-401.
 46. Faller KC. Characteristics of a clinical sample of sexually abused children: how boy and girl victims differ. *Child Abuse Negl.* 1989;13:281-291.
 47. Feitel B, Margetson N, Chamas J, Lipman C. Psychosocial background and behavioral and emotional disorders of homeless and runaway youth. *Hosp Community Psychiatry.* 1992;43:155-159.
 48. Finkelhor D, Hotaling G, Lewis IA, Smith C. Sexual abuse in a national survey of adult men and women: prevalence, characteristics, and risk factors. *Child Abuse Negl.* 1990;14:19-28.
 49. Freund K, Watson R, Dickey R. Does sexual abuse in childhood cause pedophilia: an exploratory study. *Arch Sex Behav.* 1990;19:557-568.
 50. Friedrich WN, Beilke RL, Urquiza AJ. Behavior problems in young sexually abused boys: a comparison study. *J Interpersonal Violence.* 1988;3:21-28.
 51. Friedrich WN, Luecke WJ, Beilke FL, Place V. Psychotherapy outcome of sexually abused boys: an agency study. *J Interpersonal Violence.* 1992;7:396-409.
 52. Friedrich WN, Schafer LC. Somatic symptoms in sexually abused children. *J Pediatr Psychol.* 1995;20:661-670.
 53. Fromuth ME, Burkhardt BR. Childhood sexual victimization among college men: definitional and methodological issues. *Violence Victims.* 1987;2:241-253.
 54. Fromuth ME, Burkhardt BR. Long-term psychological correlates of childhood sexual abuse in two samples of college men. *Child Abuse Negl.* 1989;13:533-542.
 55. Fromuth ME, Burkhardt BR, Jones CW. Hidden child molestation: an investigation of adolescent perpetrators in a nonclinical sample. *J Interpersonal Violence.* 1991;6:376-384.
 56. Futterman D, Hein K, Reuben N, Dell R, Shaffer N. Human immunodeficiency virus-infected adolescents: the first 50 patients in a New York City program. *Pediatrics.* 1993;91:730-735.
 57. Gellert GA, Durfee MJ, Berkowitz CD, Higgins KV, Tubiolo VC. Situational and sociodemographic characteristics of children infected with human immunodeficiency virus from pediatric sexual abuse. *Pediatrics.* 1993;91:39-44.
 58. Gibby-Smith BM. Correlations of grade point averages at a rural college with reports of abuse in rural families. *Psychol Rep.* 1995;77:619-622.
 59. Golding JM, Cooper ML, George LK. Sexual assault history and health perceptions: seven general population studies. *Health Psychol.* 1997;16:417-425.
 60. Gordon M. Males and females as victims of childhood sexual abuse: an examination of the gender effect. *J Fam Violence.* 1990;5:321-332.
 61. Gould DA, Stevens NG, Ward NG, Carlin AS, Sowell HE, Gustafson B. Self-reported childhood abuse in an adult population in a primary care setting: prevalence, correlates, and associated suicide attempts. *Arch Fam Med.* 1994;3:252-256.
 62. Greenberg DM, Bradford JM, Curry S. A comparison of sexual victimization in the childhoods of pedophiles and hebephiles. *J Forensic Sci.* 1993;38:432-436.
 63. Harrison PA, Edwall GE, Hoffman NG, Worthen MD. Correlates of sexual abuse among boys in treatment for chemical dependency. *J Adolesc Chem Dependency.* 1990;1:53-67.
 64. Harrison PA, Fulkerson JA, Beebe TJ. Multiple substance use among adolescent physical and sexual abuse victims. *Child Abuse Negl.* 1997;21:529-539.
 65. Hartman CR, Burgess AW, McCormack A. Pathways and cycles of runaways: a model for understanding repetitive runaway behavior. *Hosp Community Psychiatry.* 1987;38:292-299.
 66. Haskett ME, Nowlan NP, Hutcheson JS, Whitworth JM. Factors associated with successful entry into therapy in child sexual abuse cases. *Child Abuse Negl.* 1991;15:467-476.
 67. Haugaard JJ, Emery RE. Methodological issues in child sexual abuse research. *Child Abuse Negl.* 1989;13:89-100.
 68. Hernandez JT, Lodico M, DiClemente RJ. The effects of child abuse and race on risk-taking in male adolescents. *J Natl Med Assoc.* 1993;85:593-597.
 69. Hibbard RA, Brack CJ, Rauch S, Orr DP. Abuse, feelings, and health behaviors in a student population. *AJDC.* 1988;142:326-330.
 70. Hibbard RA, Ingersoll GM, Orr DP. Behavioral risk, emotional risk, and child abuse among adolescents in a nonclinical setting. *Pediatrics.* 1990;86:896-901.
 71. Hibbard RA, Hartman GL. Behavioral problems in alleged sexual abuse victims. *Child Abuse Negl.* 1992;16:755-762.
 72. Holmes WC. Association between a history of childhood sexual abuse and subsequent, adolescent psychoactive substance use disorder in a sample of HIV seropositive men. *J Adolesc Health.* 1997;20:414-419.
 73. Hunter JA. A comparison of the psychosocial maladjustment of adult males and females sexually molested as children. *J Interpersonal Violence.* 1991;6:205-217.
 74. Hunter JA, Goodwin DW, Wilson RJ. Attributions of blame in child sexual abuse victims: an analysis of age and gender influences. *J Child Sex Abuse.* 1992;1:75-89.
 75. Hussey DL, Strom G, Singer M. Male victims of sexual abuse: an analysis of adolescent psychiatric inpatients. *Child Adolesc Soc Work J.* 1992;9:491-503.
 76. Huston RL, Parra JM, Prihoda TJ, Foulds DM. Characteristics of childhood sexual abuse in a predominantly Mexican-American population. *Child Abuse Negl.* 1995;19:165-176.
 77. Hutchings PS, Dutton MA. Sexual assault history in a community mental health center clinical population. *Community Ment Health J.* 1993;29:59-63.
 78. Jackson H, Nuttall R. Clinician responses to sexual abuse allegations. *Child Abuse Negl.* 1993;17:127-143.
 79. Jacobson A, Herald C. The relevance of childhood sexual abuse to adult psychiatric inpatient care. *Hosp Community Psychiatry.* 1990;41:154-158.
 80. Janikowski TP, Bordieri JE, Glover NM. Client perceptions of incest and substance abuse. *Addict Behav.* 1997;22:447-459.
 81. Janus M, Burgess AW, McCormack A. Histories of sexual abuse in adolescent male runaways. *Adolescence.* 1987;22:405-417.
 82. Jenny C, Roesler TA, Poyer KL. Are children at risk for sexual abuse by homosexuals? *Pediatrics.* 1994;94:41-44.
 83. Johnson RL, Shrier DK. Sexual victimization of boys: experience at an adolescent medicine clinic. *J Adolesc Health Care.* 1985;6:372-376.
 84. Johnson RL, Shrier D. Past sexual victimization by females of male patients in an adolescent medicine clinic population. *Am J Psychiatry.* 1987;144:650-652.
 85. Johnson TC. Child perpetrators—children who molest other children: preliminary findings. *Child Abuse Negl.* 1988;12:219-229.
 86. Kaplan MS, Becker JV, Tenke CE. Influence of abuse history on male adolescent self-reported comfort with interviewer gender. *J Interpersonal Violence.* 1991;6:3-11.
 87. Kellogg ND, Hoffman TJ. Unwanted and illegal sexual experiences in childhood and adolescence. *Child Abuse Negl.* 1995;19:1457-1468.
 88. Kendall-Tackett KA, Simon AF. A comparison of the abuse experiences of male and female adults molested as children. *J Fam Violence.* 1992;7:57-62.
 89. Koegel P, Melamid E, Burnamm A. Childhood risk factors for homelessness among homeless adults. *Am J Public Health.* 1995;85:1642-1649.
 90. Kohan MJ, Pothier P, Norbeck JS. Hospitalized children with history of sexual abuse: incidence and care issues. *Am J Orthopsychiatry.* 1987;57:258-264.
 91. Langevin R, Wright P, Handy L. Characteristics of sex offenders who were sexually victimized as children. *Ann Sex Res.* 1989;2:227-253.
 92. Lanktree C, Briere J, Zaidi L. Incidence and impact of sexual abuse in a child outpatient sample: the role of direct inquiry. *Child Abuse Negl.* 1991;15:447-453.
 93. Lenderking WR, Wold C, Mayer KH, Goldstein R, Losina E, Seage GR. Childhood sexual abuse among homosexual men: prevalence and association with unsafe sex. *J Gen Intern Med.* 1997;12:250-253.
 94. Livingston R, Lawson L, Jones JJ. Predictors of self-reported psychopathology in children abused repeatedly by a parent. *J Am Acad Child Adolesc Psychiatry.* 1993;32:948-953.
 95. Lodico MA, Gruber E, DiClemente RJ. Childhood sexual abuse and coercive sex among school-based adolescents in a midwestern state. *J Adolesc Health.* 1996;18:211-217.
 96. Longstreth GF, Wolde-Tsadik G. Irritable bowel-type symptoms in HMO examinees: prevalence, demographics, and clinical correlates. *Dig Dis Sci.* 1993;38:1581-1589.
 97. MacMillan HL, Fleming JE, Trocme N, et al. Prevalence of child physical and sexual abuse in the community: results from the Ontario Health Supplement. *JAMA.* 1997;278:131-135.
 98. Marshall WN Jr, Puls T, Davidson C. New child abuse spectrum in an era of increased awareness. *AJDC.* 1988;142:664-667.
 99. McClellan J, Adams J, Douglas D, McCurry C, Storck M. Clinical characteristics related to severity of sexual abuse: a study of seriously mentally ill youth. *Child Abuse Negl.* 1995;19:1245-1254.
 100. McClellan J, McCurry C, Ronnei M, et al. Relationship between sexual abuse, gender, and sexually inappropriate behaviors in seriously mentally ill youths. *J Am Acad Child Adolesc Psychiatry.* 1997;36:959-965.
 101. McCormack A, Janus M, Burgess AW. Runaway youths and sexual victimization: gender differences in an adolescent runaway population. *Child Abuse Negl.* 1986;10:387-395.
 102. McCormack A, Rokous FE, Hazelwood RR, Burgess AW. An exploration of incest in the childhood development of serial rapists. *J Fam Violence.* 1992;7:219-228.
 103. McKelvey RS, Webb JA. A pilot study of abuse among Vietnamese Amerasians. *Child Abuse Negl.* 1995;19:545-553.
 104. Melchert TP, Parker RL. Different forms of childhood abuse and memory. *Child Abuse Negl.* 1997;21:125-135.
 105. Mian M, Wehrspann W, Klajner-Diamond H, LeBaron D, Winder C. Review of 125 children 6 years of age and under who were sexually abused. *Child Abuse Negl.* 1986;10:223-229.
 106. Moisan PA, Sanders-Phillips K, Moisan PM. Ethnic differences in circumstances of abuse and symptoms of depression and anger among sexually abused black and Latino boys. *Child Abuse Negl.* 1997;21:473-488.
 107. Moore KA, Nord CW, Peterson JL. Nonvoluntary sexual activity among adolescents. *Fam Plann Perspect.* 1989;21:110-114.
 108. Morris PA, Bihan SM. The prevalence of child-

- dren with a history of sexual abuse hospitalized in the psychiatric setting. *J Child Adolesc Psychiatr Ment Health Nurs*. 1991;4:49-54.
109. Muram D, Dorko B, Brown JG, Tolley EA. Child sexual abuse in Shelby County, Tennessee: a new epidemic? *Child Abuse Negl*. 1991;15:523-529.
110. Nagy S, Adcock AG, Nagy MC. A comparison of risky health behaviors of sexually active, sexually abused, and abstaining adolescents. *Pediatrics*. 1994;93:570-575.
111. Neisen JH, Sandall H. Alcohol and other drug abuse in a gay/lesbian population: related to victimization? *J Psychol Hum Sex*. 1990;3:151-168.
112. Nelson DE, Higginson GK, Grant-Worley JA. Using the youth risk behavior survey to estimate prevalence of sexual abuse among Oregon high school students. *J Sch Health*. 1994;64:413-416.
113. Nuttall R, Jackson H. Personal history of childhood abuse among clinicians. *Child Abuse Negl*. 1994;18:455-472.
114. Okami P. Self-reports of "positive" childhood and adolescent sexual contacts with older persons: an exploratory study. *Arch Sex Behav*. 1991;20:437-457.
115. Olivardia R, Pope HG Jr, Mangweth B, Hudson JI. Eating disorders in college men. *Am J Psychiatry*. 1995;152:1279-1285.
116. Paris J, Zweig-Frank H, Guzder J. Risk factors for borderline personality in male outpatients. *J Nerv Ment Dis*. 1994;182:375-380.
117. Pierce R, Pierce LH. The sexually abused child: a comparison of male and female victims. *Child Abuse Negl*. 1985;9:191-199.
118. Powers JL, Eckenrode J. The maltreatment of adolescents. *Child Abuse Negl*. 1988;12:189-199.
119. Priest R. Child sexual abuse histories among African-American college students: a preliminary study. *Am J Orthopsychiatry*. 1992;62:475-476.
120. Raiha NK, Soma DJ. Victims of child abuse and neglect in the US Army. *Child Abuse Negl*. 1997;21:759-768.
121. Reinhart MA. Sexually abused boys. *Child Abuse Negl*. 1987;11:229-235.
122. Reinhart MA. Urinary tract infection in sexually abused children. *Clin Pediatr (Phila)*. 1987;26:470-472.
123. Remafedi G, Farrow JA, Deisher RW. Risk factors for attempted suicide in gay and bisexual youth. *Pediatrics*. 1991;87:869-875.
124. Resnick MD, Blum RW. The association of consensual sexual intercourse during childhood with adolescent health risk and behaviors. *Pediatrics*. 1994;94:907-913.
125. Rew L, Esparza D, Sands D. A comparative study among college students of sexual abuse in childhood. *Arch Psychiatr Nurs*. 1991;5:331-340.
126. Rhynard J, Krebs M, Glover J. Sexual assault in dating relationships. *J Sch Health*. 1997;67:89-93.
127. Richardson MF, Meredith W, Abbot DA. Sex-typed role in male adolescent sexual abuse survivors. *J Fam Violence*. 1993;8:89-100.
128. Risin LI, Koss MP. The sexual abuse of boys: prevalence and descriptive characteristics of childhood victimizations. *J Interpersonal Violence*. 1987;2:309-323.
129. Roane TH. Male victims of sexual abuse: a case review within a child protective team. *Child Welfare*. 1992;71:231-239.
130. Robin RW, Chester B, Rasmussen JK, Jaranon JM, Goldman D. Prevalence, characteristics, and impact of childhood sexual abuse in a Southwestern American Indian tribe. *Child Abuse Negl*. 1997;21:769-787.
131. Robin RW, Chester B, Rasmussen JK, Jaranon JM, Goldman D. Factors influencing utilization of mental health and substance abuse services by American Indian men and women. *Psychiatr Serv*. 1997;48:826-832.
132. Roessler TA, McKenzie N. Effects of childhood trauma on psychological functioning in adults sexually abused as children. *J Nerv Ment Dis*. 1994;182:145-150.
133. Rohsenow DJ, Corbett R, Devine D. Molested as children: a hidden contribution to substance abuse? *J Subst Abuse Treat*. 1988;5:13-18.
134. Rose SM, Peabody CG, Stratigeas B. Undetected abuse among intensive case management clients. *Hosp Community Psychiatry*. 1991;42:499-503.
135. Rose SM. Acknowledging abuse backgrounds of intensive case management clients. *Community Ment Health J*. 1991;27:255-263.
136. Rosen LN, Martin L. The measurement of childhood trauma among male and female soldiers in the US Army. *Mil Med*. 1996;161:342-345.
137. Rosenthal JA. Patterns of reported child abuse and neglect. *Child Abuse Negl*. 1988;12:263-271.
138. Rosenthal JA, Motz JK, Edmonson DA, Groze V. A descriptive study of abuse and neglect in out-of-home placement. *Child Abuse Negl*. 1991;15:249-260.
139. Rossetti SJ. The impact of child sexual abuse on attitudes toward God and the Catholic Church. *Child Abuse Negl*. 1995;19:1469-1481.
140. Rubinstein M, Yeager CA, Goodstein C, Lewis DO. Sexually assaultive male juveniles: a follow-up. *Am J Psychiatry*. 1993;150:262-265.
141. Ryan G, Miyoshi TJ, Metzner JL, Krugman RD, Fryer GE. Trends in a national sample of sexually abusive youths. *J Am Acad Child Adolesc Psychiatry*. 1996;35:17-25.
142. Sabotta EE, Davis RL. Fatality after report to a child abuse registry in Washington State, 1973-1986. *Child Abuse Negl*. 1992;16:627-635.
143. Sansonnet-Hayden H, Haley G, Marriage K, Fine S. Sexual abuse and psychopathology in hospitalized adolescents. *J Am Acad Child Adolesc Psychiatry*. 1987;26:753-757.
144. Sarwer DB, Crawford I, Durlak JA. The relationship between childhood sexual abuse and adult male sexual dysfunction. *Child Abuse Negl*. 1997;21:649-655.
145. Schulte JG, Dinwiddie SH, Pribor EF, Yutzy SH. Psychiatric diagnoses of adult male victims of childhood sexual abuse. *J Nerv Ment Dis*. 1995;183:111-113.
146. Sher KJ, Gershuny BS, Peterson L, Raskin G. The role of childhood stressors in the intergenerational transmission of alcohol use disorders. *J Stud Alcohol*. 1997;58:414-427.
147. Shrier D, Johnson RL. Sexual victimization of boys: an ongoing study of an adolescent medicine clinic population. *J Natl Med Assoc*. 1988;80:1189-1193.
148. Siegel JM, Sorenson SB, Golding JM, Burnam MA, Stein JA. The prevalence of childhood sexual assault: the Los Angeles Epidemiologic Catchment Area Project. *Am J Epidemiol*. 1987;126:1141-1153.
149. Simpson TL, Westerberg VS, Little LM, Trujillo M. Screening for childhood physical and sexual abuse among outpatient substance abusers. *J Subst Abuse Treat*. 1994;11:347-358.
150. Sobsey D, Randall W, Parrilla RK. Gender differences in abused children with and without disabilities. *Child Abuse Negl*. 1997;21:707-720.
151. Spencer MJ, Dunklee P. Sexual abuse of boys. *Pediatrics*. 1986;78:133-138.
152. Stein MB, Walker JR, Anderson G, et al. Childhood physical and sexual abuse in patients with anxiety disorders and in a community sample. *Am J Psychiatry*. 1996;153:275-277.
153. Stevenson MR, Gajarsky WM. Unwanted childhood sexual experiences relate to later revictimization and male perpetration. *J Psychol Hum Sex*. 1991;4:57-70.
154. Sullivan PM, Brookhouser PE, Scanlan JM, Knutson JF, Schulte LE. Patterns of physical and sexual abuse of communicatively handicapped children. *Ann Otol Rhinol Laryngol*. 1991;100:188-194.
155. Swett C Jr, Surrey J, Cohen C. Sexual and physical abuse histories and psychiatric symptoms among male psychiatric outpatients. *Am J Psychiatry*. 1990;147:632-636.
156. Tingus KD, Heger AH, Foy DW, Leskin GA. Factors associated with entry into therapy in children evaluated for sexual abuse. *Child Abuse Negl*. 1996;20:63-68.
157. Tjaden PG, Thoennes N. Predictors of legal intervention in child maltreatment cases. *Child Abuse Negl*. 1992;16:807-821.
158. Vermund SH, Alexander-Rodriguez T, MacLeod S, Kelley KF. History of sexual abuse in incarcerated adolescents with gonorrhea or syphilis. *J Adolesc Health Care*. 1990;11:449-452.
159. Violato C, Genus M. Factors which differentiate sexually abused from nonabused males: an exploratory study. *Psychol Rep*. 1993;72:767-770.
160. Wallen J. A comparison of male and female clients in substance abuse treatment. *J Subst Abuse Treat*. 1992;9:243-248.
161. Weber FT, Gearing J, Davis A, Conlon M. Prepubertal initiation of sexual experiences and older first partner predict promiscuous sexual behavior of delinquent adolescent males: unrecognized child abuse? *J Adolesc Health*. 1992;13:600-605.
162. Weine SM, Becker DF, Levy KN, Edell WS, McGlashan TH. Childhood trauma histories in adolescent inpatients. *J Trauma Stress*. 1997;10:291-298.
163. Wellman MM. Child sexual abuse and gender differences: attitudes and prevalence. *Child Abuse Negl*. 1993;17:539-547.
164. Whiffen VE, Clark SE. Does victimization account for sex differences in depressive symptoms? *Br J Clin Psychol*. 1997;36:185-193.
165. Windle M, Windle RC, Scheidt DM, Miller GB. Physical and sexual abuse and associated mental disorders among alcoholic inpatients. *Am J Psychiatry*. 1995;152:1322-1328.
166. Wolfe DA, Sas L, Wekerle C. Factors associated with the development of posttraumatic stress disorder among child victims of sexual abuse. *Child Abuse Negl*. 1994;18:37-50.
167. Worling JR. Sexual abuse histories of adolescent male sex offenders: differences on the basis of the age and gender of their victims. *J Abnorm Psychol*. 1995;104:610-613.
168. Worling JR. Adolescent sibling-incest offenders: differences in family and individual functioning when compared to adolescent non sibling sex offenders. *Child Abuse Negl*. 1995;19:633-643.
169. Wurtele SK, Kaplan GM, Keairnes M. Childhood sexual abuse among chronic pain patients. *Clin J Pain*. 1990;6:110-113.
170. Young EA, Abelson JL, Curtis GC, Nesse RM. Childhood adversity and vulnerability to mood and anxiety disorders. *Depress Anxiety*. 1997;5:66-72.
171. Zierler S, Feingold L, Lauffer D, Velentgas P, Kantrowitz-Gordon I, Mayer K. Adult survivors of childhood sexual abuse and subsequent risk of HIV infection. *Am J Public Health*. 1991;81:572-575.
172. Kleinbaum DG, Kupper LL, Morgenstern H. *Epidemiologic Research: Principles and Quantitative Methods*. New York, NY: Van Nostrand Reinhold Co; 1982.
173. Kelsey JL, Thompson WD, Evans AS. *Methods in Observational Epidemiology*. New York, NY: Oxford University Press Inc; 1986.
174. Dickersin K, Berlin JA. Meta-analysis: state-of-the-science. *Epidemiol Rev*. 1992;14:154-176.
175. McCann J, Voris J, Simon M, Wells R. Perianal findings in prepubertal children selected for non-abuse: a descriptive study. *Child Abuse Negl*. 1989;13:179-193.
176. Clayden GS. Reflex anal dilatation associated with severe chronic constipation in children. *Arch Dis Child*. 1988;63:832-836.