

Self-reported Childhood Abuse in an Adult Population in a Primary Care Setting

Prevalence, Correlates, and Associated Suicide Attempts

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Objective: To describe the prevalence of childhood physical, sexual, and emotional abuse and suicide attempts in a sample of adult patients from a primary care setting and to examine the relationship between suicide attempts and a self-reported history of childhood abuse.

Design: Cross-sectional sampling via a self-administered survey that included an abuse questionnaire, the Inventory to Diagnose Depression, and questions regarding suicide.

Setting: University medical center family medicine practice.

Patients: A convenience sample of patients aged 18 years and older presenting for care. Of the 778 patients approached, 448 patients (58%) consented and returned their surveys. We report only on the 292 surveys (38%) returned with complete information. Subjects were predominantly middle class and white, with a mean age of 37 years.

Measurements and Main Results: Forty-four per-

cent of the patients reported experience of childhood abuse, and 22% reported multiple forms of abuse. Eighteen percent of abused vs 3% of nonabused patients ($P=.00001$) reported a history of suicide attempts. Being female, younger, and less educated were associated with any abuse. Females reported more sexual abuse; less educated patients, more physical abuse; and younger patients, more physical and sexual abuse and suicide attempts. Odds ratios for suicide attempts, when adjusted by abuse status, were 6.4 for any abuse (95% confidence intervals [CI], 2.4 to 17.6), 4.1 for sexual abuse (95% CI, 1.7 to 9.9), 3.7 for emotional abuse (95% CI, 1.4 to 10.0), and 1.2 for physical abuse (95% CI, 0.5 to 3.1).

Conclusion: A history of childhood abuse was a common experience in this sample. Patients with a history of abuse, particularly sexual and emotional abuse, are at increased risk of suicidal behavior. To facilitate more appropriate care and treatment, primary care practitioners should question patients regarding a history of abuse.

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THE MEDICAL community has only recently recognized the long-term effects of childhood abuse on mental health. Investigators from a variety of disciplines, including sociology, psychology, criminology, and clinical specialties, have spurred current awareness. Primary care settings, despite being a potential site for preventing and treating the adverse consequences of childhood abuse, have provided relatively little information regarding this problem.¹⁻³

The true scope of the problem of childhood abuse is thought to be best estimated by measuring the prevalence of reports of childhood abuse in adult popu-

lations.^{4(pp15-18)} The social context surrounding the events at the time of the abuse and the nature of the abuse itself affect the accuracy of the estimation of the extent of this problem. Family and individual guilt, inequity of power in the relationships among the people involved, and potential criminal repercussions inhibit the reporting of abuse to social service or legal agencies.⁵⁻⁹ Prevalence of past abuse as ascertained from adults remem-

See Methods on next page

METHODS

We obtained a convenience sample of patients 18 years of age and older attending a university-based family medicine practice from July through November 1991. This practice serves a predominantly white (82%), employed patient population, many of whom work at the university or the health complex. Approximately 64% of patients are female. The mean age of adult female patients is 40 years and of male patients, 42 years. Two white, female medical students (H.E.S. and B.G.) who had been trained in administering the survey approached adult patients of the practice in the waiting area. These patients were scheduled for either acute care or general medical examinations at the family medicine center during morning and afternoon office hours.

The survey consisted of a consent form describing the content and purpose of the study and a number of measures, including a questionnaire on sexual abuse, a questionnaire on emotional and physical abuse, the Inventory to Diagnose Depression,²⁹ and questions regarding self-damaging behaviors, psychiatric hospitalizations, medications, and demographic information. Questionnaires were filled out anonymously. The procedures for this survey were reviewed and accepted by the Human Subjects Committee of the involved institution.

The questions about sexual abuse³⁰ ascertained information regarding six levels of unwanted physical contact of increasing invasiveness as follows:

1. I have been casually touched, pinched, or fondled in a sexual manner when I did not want that to happen.
2. I have been touched or fondled in a sexual manner for a period of time when I did not want that to happen.
3. I have been undressed and have had my genitals and/or breasts touched when I did not want that to happen.
4. I have been forced to touch or fondle another person's genitals when I did not want to.
5. I have been forced to engage in oral-genital sexual relations when I did not want to.
6. I have been forced to have sexual intercourse when I did not want to.

We classified a patient as positive for a history of childhood sexual abuse if they reported any one of these behaviors occurring at or before the age of 16 years. We measured the experience of childhood physical abuse using a

subset of questions in the emotional and physical abuse questionnaire,³¹ which targeted particular behaviors of parents or primary caregivers. Scoring was based on a six-point scale on which 1 indicated never and 6, very frequently. Physical abuse was defined as any occurrence of a major assault resulting in broken bones, teeth being knocked out, and being purposefully burned or scoring a 3 or higher for behaviors such as being pinched, hit with a board, stick, or wire, and shaken. Cronbach's α for the emotional and physical abuse questionnaire was .83, showing good reliability of this instrument. Emotional abuse was defined by an affirmative response to the statement, "I consider myself to have been emotionally abused as a child/adolescent." A history of suicide attempts was defined by an affirmative answer to the question, "Have you ever made a suicide attempt?"

Five hundred sixty (72%) of 778 people approached in the practice waiting room consented to fill out the survey. The primary reason patients stated for not participating was lack of time. The number of surveys returned was 448 (58%), and of those, 16% lacked full information on sexual abuse and 14%, on current age and household income. These incomplete surveys resulted in a response rate of 38% of patients approached and 65% of returned surveys. There were no statistically significant differences across demographic, abuse, or suicide status between the patients in the analytic sample and the patients with missing information.

We analyzed the data using bivariate and multivariate methods (SPSS version 4.0, SPSS Inc, Chicago, Ill). Pearson χ^2 test with continuity correction and Fisher's Exact Test were used for bivariate evaluation of the association between categories of abuse and demographic factors. The independent two-tailed *t* test was used for analyzing age as a continuous variable. We initially selected the analytic sample on variables that included current household income. Repeated analysis excluding this variable did not change the associations. We therefore dropped this variable as an inclusion criterion, increasing the number of cases for analysis. Using logistic regression, we estimated the odds ratio (OR) to examine the strength of the association between the main effect of experiencing any abuse and suicide attempts after adjustment for significant demographic factors. We then examined the relative effects of specific forms of abuse. Interactions were not examined owing to the small sample size.

bering past events avoids some of these personal and legal factors that affect reporting.

The prevalence of past childhood abuse varies depending on the populations sampled and the methods and the definitions used for studying childhood sexual, physical, and emotional abuse.⁸⁻¹⁰ The reported prevalence of childhood sexual abuse in adult women and men in the United States ranges from 8% to 60% and 3% to 22%, respectively. Estimates of physical abuse range from 15% to 28% for wo-

men and are 7% for men. Most of these studies were performed in general or special community settings such as universities or, alternatively, in special clinical populations such as psychiatric inpatient services and gastroenterology or obstetrics-gynecology clinics.^{4(pp18-22),9,11-16} The relationship of childhood abuse to mental illness has been studied primarily in clinical psychiatric populations.¹⁶⁻²³

The list of associated, long-term consequences to mental health spans a variety of diagnoses from affective, per-

Table 1. Reported Prevalence of Childhood Abuse and Suicide Attempts by Demographic Characteristics of the Total Sample

Patient Characteristics	Total No. (%)	No. (%) of Patients Reporting				
		Any Abuse	Physical Abuse	Sexual Abuse	Emotional Abuse	Suicide Attempts
All patients	292 (100)	130 (44)	79 (27)	73 (25)	64 (22)	29 (10)
Age, y						
<30	97 (33)	45 (46)	31 (32)	24 (25)	16 (16)	12 (12)
30-39	110 (38)	53 (48)	31 (28)	31 (28)	30 (27)	12 (11)
40-77	85 (29)	32 (38)	17 (20)	18 (21)	18 (21)	5 (6)
Race						
White	266 (91)	114 (43)	68 (26)	65 (24)	58 (22)	28 (11)
Other	26 (9)	16 (62)	11 (42)	8 (31)	6 (23)	1 (4)
Education completed, y						
≤12	28 (10)	19 (68)*	13 (46)*	9 (32)	4 (14)	5 (18)
>12	264 (90)	111 (42)	66 (25)	64 (24)	60 (23)	24 (9)
Sex						
F	208 (71)	101 (49)*	60 (29)	63 (30)*	51 (24)	22 (11)
M	84 (29)	29 (35)	19 (22)	10 (12)	13 (17)	7 (8)
No. of times married						
1	144 (49)	53 (37)*	32 (22)	29 (20)	21 (15)*	12 (8)
0 or >1	148 (51)	77 (52)	47 (32)	44 (30)	43 (29)	17 (11)

*By Pearson χ^2 , $P < .05$.

sonality, and dissociative disorders to somatic complaints such as chronic abdominal or pelvic pain.¹⁴⁻²³ Self-damaging behaviors such as suicide attempts and self-mutilation have been noted in psychiatric inpatients exposed to childhood abuse.^{16-18,23} Studies done in the community or a general practice setting show a lifetime cumulative incidence of suicide attempts of 1.5% in men and less than 5% in women but do not report specific ascertainment of experience of childhood abuse as a potential risk factor for suicide attempts.²⁴⁻²⁸

We describe the prevalence of histories of childhood abuse and suicide attempts in a sample of patients from a primary care setting in the United States. We also explore whether patients who report childhood abuse have a higher prevalence of past suicide attempts and whether a particular form of childhood abuse (ie, sexual, physical, or emotional) is more highly associated with this effect on mental health.

RESULTS

The overall composition of this sample from a primary care setting is shown in **Table 1**. Seventy-one percent of the participants were female, with a mean age of 35 years. The mean age of the male participants was 42 years. Participants were predominantly white and college educated. Other races included blacks (3%), Asians (3%), and American Indians (2%). Approximately half of the participants were married for the first time or widowed vs those who were never married, separated, divorced, or married for a second time.

Forty-four percent of these participants reported experience of any form of childhood abuse, and 22% reported multiple forms of abuse (**Table 2**). Twenty-seven percent

reported physical abuse; 25%, sexual abuse; and 22%, emotional abuse (**Table 1**). A younger age (continuous variable) was significantly associated with a higher rate of suicide attempts and all forms of abuse ($P < .05$) except emotional abuse. Less education, female sex, and unstable or absent marital relationships were associated with experiencing any abuse. Other significant findings showed females reporting a higher rate of sexual abuse; less educated patients, a higher rate of physical abuse; and patients with unstable or absent marital relationships, a higher rate of emotional abuse.

We then examined the relationship between abuse and suicide attempts. Eighteen percent of the patients reporting a history of any abuse also reported a history of suicide attempts, while only 3% not reporting any abuse reported suicide attempts ($P = .00001$). Each single form of abuse, physical, emotional, and sexual, was significantly associated with suicide attempts ($P < .002$). Logistic regression models adjusted for age, sex, and education were then developed to measure the strength of the association of abuse with suicide attempts. The OR produced by the first model using any experience of childhood abuse was 6.4 (95% confidence intervals, 2.4 to 17.6). The second model containing all the specific forms of abuse showed sexual abuse to be the form of abuse most highly associated with suicide attempts, followed by emotional abuse (**Table 3**).

COMMENT

In this sample of patients in a primary care setting, a history of childhood abuse was a common experience. Almost half the patients reported experiencing any one form of abuse, and one quarter reported experiencing at least

Table 2. Prevalence of Self-reported Childhood Abuse and Suicide Attempts in the Total Sample (N=292)*

Form of Abuse†	No. (%) of Patients	
	Prevalence of Abuse	Suicide Attempts
Emotional only	11 (4)	0 (0)
Physical only	26 (9)	2 (8)
Sexual only	30 (10)	5 (17)
Physical and emotional	20 (7)	4 (20)
Physical and sexual	10 (3)	1 (10)
Sexual and emotional	10 (3)	4 (40)
Sexual, physical, and emotional	23 (8)	8 (35)
Any abuse	130 (44)	24 (18)

*Percentages have been rounded.

†Categories are mutually exclusive except "any abuse".

Table 3. Odds Ratios (ORs) and 95% Confidence Intervals (CIs) for Suicide Attempts in Relation to the Form of Childhood Abuse

Form of Abuse	Adjusted OR*	95% CI
Physical	1.2	0.5-3.1
Sexual	4.1	1.7-9.9
Emotional	3.7	1.4-10.0

*Calculated from one model that contains age, sex, education, physical abuse, sexual abuse, and emotional abuse variables.

two forms of abuse. Our estimates fell within the range of studies done in populations that theoretically form a functional or mental health continuum. Among college students, a nonclinical, high-functioning population, Peters et al^{4(pp15-18)} report a 19% prevalence of childhood sexual abuse in females and a 9% prevalence in males. In comparison, Bryer et al¹⁷ report that 59% of consecutively admitted female psychiatric patients reported a history of sexual or physical abuse.

The validity of self-reported abuse is a controversial issue. Herman and Schatzow³² validated experiences of childhood sexual abuse with outside testimony or records in 74% of female patients in group treatment and with strongly supportive evidence in 9% more. Repression of abusive experiences, a coping mechanism for dealing with abuse, could lead to an underestimation of the prevalence of abuse in this sample and also affect the relationship between abuse and suicide attempts in either direction.

The rate of suicide attempts also was higher in this sample (10%) than in previously documented community- and practice-based estimates.²⁴⁻²⁸ Community-based random sampling strategies found the prevalence of self-reported past suicide attempts for women to be 4.2% and 5.5% and for men, 1.5% and 1.8%. The non-random nature of our sample affected our estimate of the prevalence of abuse and suicide attempts. Visit-based estimates of factors or illnesses overestimate the true preva-

lence, since enrollees with illnesses visit the office more frequently.³³ Depressed patients frequent the office twice as much as nondepressed patients.³⁴ This group obviously has a high risk for past suicide attempts. If a history of childhood abuse puts people at risk of increased mental health problems and visits to physicians, this study overestimates the prevalence of abuse and suicide attempts in all primary care practices. Similarly, patients seen in primary care practices may not be representative of the population as a whole.

Low response rate and lack of full information from participants contribute to a potential selection bias. In the study by Haugaard and Emery¹⁰ of a student population, prevalence estimates of sexual abuse were more accurate in classes with a moderate response rate (42%). The low-responding class (25%) overestimated and the high-responding class (75%) underestimated the true prevalence. Our response rate (38%) could result in an overestimation of the prevalence of sexual abuse. Survey information was kept confidential and shared with a respondent's provider only if requested by the respondent. It is still possible that patients with a history of abuse and/or suicide attempts were either more or less reticent about participation.

Although the sample reflected the general composition of the family medicine practice, other potential selection biases must be considered. The demographic makeup of our surveyors may have selected for a younger, white, and female sample. Men and older women may have been less willing to participate in surveys of abuse and sexuality due to internalized societal attitudes toward nondisclosure of these issues.⁹ These groups may also be underrepresented since they have a higher likelihood of completed suicide. Men in general have higher rates of completed suicide than women, and 10% of people who attempt suicide someday complete suicide.^{24,35} Moscicki et al²⁶ found being black was protective against suicide attempts compared with being nonblack and non-Hispanic, whereas lower socioeconomic status was associated with a higher risk for suicide attempts. In conclusion, the homogeneity across race and education in our study limits the generalizability of our results to other populations, but at the same time provides a sample with less potential confounding of the relationship between past childhood abuse and suicide attempts.

Our study found a sixfold risk of suicide attempts associated with any childhood abuse and in particular showed sexual abuse, followed by emotional abuse, to be the most highly associated abuse factors. This finding among patients in a sample taken from a general family practice setting contributes to a body of knowledge regarding risk factors for suicidal behaviors and reinforces findings of this association previously noted in psychiatric populations.^{16-18,23} Suicide attempts can also be added to the list of outcomes of childhood abuse already studied in samples in primary care settings, including chronic medical problems, pregnancy at an early age, somatization, higher rates of surgeries, and high-risk behaviors such as tobacco and drug use.^{2,3}

Although suicidal behaviors are relatively rare in the primary care setting, those who attempt suicide frequently visit their primary care providers prior to the attempt.^{24,35,36} Fifty-eight percent of the attempters in Turner's study²⁸ were seen by a general practitioner within 28 days of the attempt. Often these patients do not complain of depression or self-destructive feelings at the time of the visit.^{24,35}

Similarly, patients who have been abused frequently do not inform providers of past abusive experiences unless they are asked.^{6,14} Therefore, providers must take the initiative to screen patients for histories of abuse. The process of victimization from childhood abuse frequently affects a patient's ability to develop trusting relationships both inside and outside the clinical setting.^{18,20} Providers knowledgeable about the patient's history of abuse may place difficult patient-provider relationships, such as those associated with patients who attempt suicide, in a psychosocial context and potentially promote more appropriate diagnosis and treatment of patients.^{17,19} More studies, both prospective and retrospective, examining potential biomedical and psychological outcomes of childhood abuse should be performed in primary care settings.

Both childhood abuse and suicidal behaviors are sensitive, value-laden subjects for both the patient and the provider. Providers need not only be aware of these problems but also become comfortable in routinely assessing them in the primary care setting. This study provides a basis for incorporating skills in this area, in the training of primary care providers via medical education, residency training, and continuing medical education forums.

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