Self-reported Medical Problems of Adult Female Survivors of Childhood Sexual Abuse

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Background. Childhood sexual abuse has been established as an antecedent to specific psychological disorders in adulthood. Only recently have researchers begun to consider the effects of this early trauma on subsequent physical health status. The current study sought to explore the relationship between a history of childhood sexual abuse in female adults and subsequent self-reported medical complaints.

Methods. This consecutive sample study used a questionnaire to distinguish subjects with a sexual abuse history and those without such a history. Subjects were female patients over 18 years of age at a primary care health center.

Results. Twenty-six percent of the 523 subjects who completed the entire questionnaire acknowledged a history of sexual abuse in childhood. This percentage is consistent with estimates for the population at large. The abused group reported more problems in respiratory, gastrointestinal, musculoskeletal, neurological, and gynecological functions. Statistically significant discriminating variables for those who had been abused were (1) total medical complaints reported, (2) previous mental health treatment, and (3) age of first sexual intercourse. Among the abused group, only 5.1% had ever disclosed information about their sexual abuse experiences to a physician.

Conclusions. At least one in four women are survivors of childhood sexual abuse. These women rarely spontaneously reveal this history to a physician, yet they are more likely than nonabused patients to report multisystemic medical complaints. To avoid misdiagnosis and misuse of medical services, physicians should routinely obtain a thorough sexual history, particularly when the patient has multisystem complaints.

Key words. Child abuse, sexual; medical history taking; women's health; psychophysiological disorders.
(*J Fam Pract 1993; 36:633-638*)

General medical settings represent a primary entrance point into the health care system for persons with mental and psychosocial problems.[1,2] These patients often present complicated clinical pictures that defy accurate medical diagnosis.

Childhood trauma (physical and sexual), occurring during a time of immature psychological and central nervous system development, has been suspected by clinicians as antecedent to the development of a variety of psychophysiological problems in adulthood.[3–5] Prevalency studies[6,7] indicate that the percentage of women in the United States who report having had an experience of sexual abuse before the age of 18 years is between 12% and 38%.

Recent studies have focused primarily on the psychological trauma caused by the abuse.[3,8] A number of these studies have included somatization disorder, or in a less structured manner, a "tendency to somatize," as an outcome variable. These studies have invariably involved distinctly psychiatric samples.[9–12]

Several other studies have investigated the relation-

Submitted, revised, February 16, 1993.

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ISSN 0094-3509

ship of sexual abuse history to specific medical problems (eg, gynecologic) in nonpsychiatric clinical samples.[13,14] Still others have used specific groups such as college students.[15] These studies all used control groups and documented significantly increased levels of self-reported physical complaints or measurable disease entities or both. A notable recent study[16] documented significantly more health risk behaviors in these women.

The present study focused on the self-reported physical health status and childhood sexual abuse history of women in a primary care setting. The study was designed to further explore the relationship of self-perceived health status and childhood sexual abuse history, and to discuss the implications of this relationship for primary care physicians.

Methods

Subjects and Research Design

Data were collected from October to July of one academic year by means of a questionnaire given to adult female subjects who represented a consecutive sample drawn from the waiting room of a large midwestern family practice residency model clinic. All female patients over 18 years of age were approached in the waiting room and asked to voluntarily participate. Their informed consent was secured and their responses were kept anonymous.

Six hundred seventy women were approached and asked to participate. Those declining to fill out the questionnaire (n = 95) were asked their age and reason for refusal. The patient's race was noted by the interviewer. This protocol was established in advance and in accordance with the institutional review board at the hospital where the study was conducted.

Neither age nor race was substantially different between those who refused and those who agreed to complete the questionnaire. Five hundred seventy-five women accepted the questionnaire, but 52 questionnaires were unusable because the patients did not complete all of the items. The remaining 523 responders (78% of those approached) had a mean age of 30.7 years ± 11.0 with a range of 18 to 77 years. Seventy-four percent of the responders were white, 23% black, and 3% were of other racial/ethnic groups.

Instrumentation

The questionnaire was developed by the authors and piloted before use to evaluate subject comprehension and response to the format. (Copies of the questionnaire are available from the authors.) A reading level no higher than grade 6 was established for the questionnaire. Respondents were asked to provide information on various demographic factors, health status, and sexual abuse history. Medical problems were assessed by a short review of body systems that asked participants to indicate the systems with which they had *more problems than the average person*, thus giving a self-perception of significant medical problems. Those women who positively answered the following question filled out a detailed section on sexual abuse: "As a child 16 years or younger were you ever a victim of sexual abuse? By this we mean were you a victim in any kind of sexually related acts with a person *more* than two years older than you?"

Statistical Analysis

Statistical analysis was performed using SPSS/PC+ statistical package (SPSS Inc, Chicago, Ill). Frequency distributions for all demographic information were computed. Chi-square analysis and t test were used as appropriate. A multivariate discriminant function analysis was performed. The level of statistical significance for all tests was set at .05 and all tests were two-tailed.

Results

A total of 134 women (26.0%) indicated a history of sexual abuse before the age of 16 years as defined in the question quoted above.

Comparisons between women who were sexually abused as children and those without this history of abuse were made on several demographic variables (Table 1). This analysis revealed no statistically significant differences between the two groups in age, racial background, marital status, number of occupants in the home, and income. The sexually abused group had significantly fewer persons who had graduated from high school than did the nonabused participants ($\chi^2 = 5.8$, $P = .016$).

The total number of children born to the women in each group did not differ, and the frequency of abortions was identical in both groups (Table 2). Likewise, the frequency of having given up a child for adoption and the reported frequency of ectopic pregnancy was not significantly different between the two groups. Sexually abused women reported their first sexual experience ($t = 50.6$, $P < .001$) and first sexual intercourse ($t = 23.2$, $P < .001$) to occur at an earlier age. It is possible that for some women in the sexually abused group, this first sexual experience and/or intercourse was an abusive one. Additionally, the total number of sexual partners for the

Table 1. Comparison of Demographic Characteristics in 523 Primary Care Patients With and Without a History of Sexual Abuse

Characteristic	No Abuse (n = 387)	Abuse (n = 136)	Combined (n = 523)
Age, y (±SD)	30.2 ± 11.0	32.2 ± 10.9	30.7 ± 11.0
Median monthly income, $	700.0	677.5	700.0
Persons living in home, no. (±SD)	3.2 ± 1.5	3.1 ± 1.3	3.2 ± 1.4
Marital status, %			
Single	38.5	31.6	36.7
Married	36.4	35.3	36.1
Separated	8.8	9.6	9.0
Widowed	1.0	1.5	1.1
Divorced	14.5	22.1	16.4
Other	0.8	0.0	0.6
Hispanic origin, %	1.6	2.9	1.9
Racial background, %			
White	72.1	77.9	73.6
Education, %			
High school graduate*	77.4	69.9	74.7

*$\chi^2 = 5.8$, P = .016.

sexually abused group was more than twice that of the nonabused patients ($t = 17.5$, $P < .001$). Abused women also reported adult sexual relationships with other women more often than did the nonabused group ($t = 18.8$, $P < .001$).

When examining sexually related medical problem areas, abused women indicated significantly more venereal disease, treatment of pelvic inflammatory disease, and surgical evaluation of pelvic pain than the nonabused group (Table 2).

Table 2. Incidence of Sexually Related Problems in Female Primary Care Patients With and Without a History of Sexual Abuse

Characteristic	No Abuse	Abuse	P Value
Sexual history			
Age of first sexual experience, y (±SD)	14.3 (±2.6)	12.1 (±4.2)	<.001
Age of first sexual intercourse, y (±SD)	16.5 (±2.2)	15.0 (±4.4)	<.001
Number of lifetime sexual partners (±SD)	6.2 (±10.2)	14.6 (±34.0)	<.001
Adult sexual experiences with women, %	.8	7.5	<.001
Number of live births (±SD)	2.0 (±1.8)	2.2 (±1.6)	NS
Ectopic pregnancies, %	3.4	3.8	NS
Children adopted out, %	1.9	5.4	NS
Abortions, %	25.2	25.6	NS
Sex-related health problems			
Venereal disease, %	14.8	25.4	.01
Pelvic inflammatory disease, %	20.0	32.6	.004
Surgical evaluation of pelvic pain, %	12.6	21.6	.02

NS denotes not significant.

Table 3. Self-reported Health Status of Female Primary Care Patients With and Without a History of Sexual Abuse

Medical Complaint	No Abuse, %	Abuse, %	P Value
Respiratory	6.2	15.4	.002
Cardiovascular	3.6	5.9	NS
Gastrointestinal	10.9	30.1	<.001
Musculoskeletal	13.4	22.8	NS
Gynecological	12.7	20.6	NS
Neurological	2.1	7.4	.01
Ears, eyes, nose and throat	14.2	21.3	NS
Other	2.6	5.9	NS
History of mental health treatment	28	60	.001

NS denotes not significant.

The two groups also were examined across self-reported general medical problems, and the results were compared (Table 3). This analysis indicated that sexual abuse victims more often indicated problems in respiratory, gastrointestinal, musculoskeletal, neurological, and gynecological categories than did the nonabused patients. The order of magnitude of this difference was often two to three times. Also, the total number of problem areas reported by the abuse group was significantly higher ($t = 40.1$, $P < .001$).

Among the women who reported a sexual abuse history, 60.3% had told one or more persons about the abuse. They most commonly told a family member (ie, mother or sibling). Only 5.1% reported ever having disclosed this information to a physician. Sexually abused women reported treatment by a mental health professional significantly more often than did nonabused women ($t = 48.3$, $P < .001$) (Table 3).

A discriminant function analysis was employed to compare the sexually abused and nonabused groups on multiple variables simultaneously. This method allowed for the examination of the relative contribution of multiple variables in distinguishing between the two groups of participants. Independent variables included age, income, high school education, number of occupants in home, total number of self-reported medical complaints, age of first sexual intercourse, treatment for venereal disease, treatment for pelvic inflammatory disease, previous laparoscopy, current sexual activity, number of births, children out of wedlock, children given up for adoption, ectopic pregnancies, abortions, number of sexual partners, adult relationships with abusive men, adult relationships with substance-abusing men, homosexual relationships, experience of previous mental health treatment, and current alcohol use. For the purpose of this analysis, the criterion set for factor loading values before they were interpreted was .40 (16% of variance). This

value is consistent with the guidelines set forth by Comrey[17] and those of Tabachnick and Fidel.[18]

Of the original 523 cases, 178 were dropped because of one or more missing variables. A comparable number of cases were dropped from each group. For the remaining 347 cases, no threats to multivariate analysis were found.

Results of this analysis indicated significant discriminating power by the predictor variables ($\chi^2 = 77.9, P < .001$; canonical correlation = .45). A loading matrix of correlations between independent variables and the discriminant function analysis demonstrate that the primary variables in the discrimination were (in order of magnitude) total number of self-reported medical complaints, indication of previous mental health treatment, and age of first sexual intercourse. High school education was not a significant discriminating variable.

The discriminant function analysis was also performed without the variable of age of first sexual intercourse, since this experience might be confounded with the actual abuse. There was no change in the analysis results with this variable removed. Self-reported medical complaints and previous mental health treatment were the primary significant discriminating variables ($\chi^2 = 77.5, P < .001$; canonical correlation = .45).

Discussion

This study was designed to explore the relationship between self-reported health status of women in a primary-care setting and their childhood experiences of sexual abuse. The rate of reported childhood sexual abuse in the study was 26%, consistent with estimates for the population at large. The sexually abused group had more subjects without a high school education than did the nonabused group. This finding is in contrast to Russell's[7] prevalency study, which found no differences between victims and controls based on educational level. One explanation of this finding is that lower educational accomplishments are an additional example of the negative impact that the abuse trauma has on these individuals in securing successful lifestyles and attaining normal milestones. The sexually abused group was also more likely to have had adult homosexual experiences. When considering that the overwhelming majority of perpetrators of child sexual abuse are male, these experiences may be at least partially understood as reactive. Neither of these variables (education and homosexual experiences), however, was found to be a significant discriminator when considered in the multivariate analysis.

The group of historically abused women are also different from their nonabused counterparts in that they report a greater number of medical problem areas. Overall, they report problems in twice as many body systems, and these are not limited to gynecological and reproductive systems. The difference factor between abused and nonabused women varied from 1.5 times to 3.5 times as many problems reported.

When all variables were combined, those with the most power to discriminate between the women in the sexually abused and nonabused groups were total number of self-reported medical complaints, previous mental health treatment, and age of first sexual intercourse. Age of first sexual intercourse might be expected because of the nature of childhood sexual abuse. When it was removed from the analysis, total number of self-reported medical complaints and previous mental health treatment remained as the statistically significant discriminating factors. A treatment history for mental health problems might also be expected based on the well-documented psychological trauma consequent to childhood sexual abuse. Although others have previously noted the higher self-report of medical complaints by victims of sexual abuse,[16] the present study goes further in documenting the importance of total number of complaints as the primary discriminative factor. Additionally, previous studies have suggested that the somatic focus is primarily on gynecologic function. The present findings, however, suggest that more often there is no single focus and the complaints are mostly general and nonspecific. These results stand out as the most clinically significant for primary care physicians.

Several explanations for the mechanism controlling the relationship between childhood sexual abuse and self-perceived medical problems are plausible. First, the abuse victim's presentation may well fit a Briquet-like or somatoform disorder, where the symptom is not under voluntary control and may well be related to psychological factors or conflicts. Briere and Runtz[15] eloquently note: "Implicit in the notion of somatization is a preoccupation with bodily processes and their vulnerability to disease or dysfunction. Such heightened concern may arise, in part, from the experience of physical invasion and vulnerability involved in sexual victimization, processes that may increase the salience of body stimuli."

A frequently heard statement of women as they attempt to move from the status of victim to that of survivor of sexual abuse is that they often feel like "damaged goods." The violated body of a childhood sexual abuse victim may express the pain and damage of the assault in tangible, physical ways, in addition to the often described emotional sequelae of abuse.

Another possible contributing factor is the tendency

on the part of abuse victims toward unhealthy, unsuccessful lifestyles. Springs and Friedrich's recent work[16] has served to effectively point out that adult abuse victims are more likely than others to engage in more health risk behaviors (eg, smoking, drug abuse, low frequency of Pap smears) and are therefore also more likely to contract actual serious disease entities.

The association between self-perceived multiple system medical complaints and a history of childhood sexual abuse is not often understood even by the victim herself. Hence, the historical experience is not likely to be shared with a treating physician. Many women keep this experience very private, rarely telling anyone. The situation of repeated visits to physicians for a wide range of often vague multisystemic medical problems in the presence of an abuse history that is unknown to the patient or caregiver may possibly result in the masked presentation phenomenon so often described in the literature.[3,5,19–22]

The current sample of women was not recruited from a psychiatric clinic population, but rather from the waiting room of a primary care clinic. A factor limiting generalizability to the public at large is that all women in the study were seeking treatment for self-identified medical problems, requesting health promotion services, or seeking care for some other specified need. How similar the experiences of these women are to those of the general population is unknown.

An additional limitation is the total reliance of this study on self-report to measure the variety and type of health problems. It is not known if a review of each subject's medical chart would indicate physician agreement with the woman's own estimation and description of her physical problems. Additionally, the use of self-report through questionnaire may have underestimated the true incidence of sexual abuse in this sample. Survivors of abuse have a heightened ability to avoid, deny, and repress memories of these negative experiences to the point where they may report a total absence of childhood memories.

Conclusions

Suggestions for the Primary Care Physician

The results of this study indicate that women abused sexually as children perceive their health status as adults in ways markedly different from their nonabused counterparts. The following factors strongly indicate that physicians should ask women about sexual abuse: (1) the remarkably high prevalence of female sexual abuse history among women in the United States (at least 1 out of 4 females), (2) the discriminating importance of total number of medical complaints, and (3) the reluctance of approximately 95% of sexually abused women to reveal this history to their physician. Simply asking a direct question about sexual abuse provides the physician with a crucial opportunity to identify this problem and help these women begin to explore the possible adult health consequences of that devastating early assault.

These findings should in no way be taken to suggest that women with vague multiple-system medical complaints are "not really sick." The differential diagnosis must include the possibility of somatoform disorder or post-traumatic stress disorder or both, since both are disabling psychophysiological experiences that have been related to childhood sexual abuse. The pain and social dysfunction that these women experience are very real and deserve the best attention health care professionals have to offer. The all too common pattern of ordering numerous biomedical tests and performing every possible procedure before even considering a psychophysiological cause or contribution at best delays appropriate treatment, and at worst introduces iatrogenic problems as well as increasing the woman's frustration and despair. Likewise, should a survivor of childhood sexual abuse return repeatedly to her physician requesting help for perceived problems, this should not be labeled "overutilization." The term overutilization implies blame to the victim and only adds to her suffering. Appropriate treatment for adult victims of childhood sexual abuse often includes referral to a mental health specialist experienced in treating this specific population. The type of emotional growth required for recovery can be difficult because the psychophysiological damage of child sexual abuse is largely hidden and often misunderstood by society, the medical community, and the survivors themselves.

Future Research

Further research in three directions is indicated. First, a true population-based sample of women, rather than a clinically based sample, should be recruited to study possible differences between women seeking medical care and those not seeking care, with respect to the variables of interest. Second, a study based on an audit of medical charts should be undertaken to explore whether the medical record reveals the same association between health outcomes and childhood sexual abuse as reported in the current investigation. Third, a study of male survivors of childhood sexual abuse is indicated. Such studies are even rarer than those focused on female survivors; yet adult sequelae of such abuse may be no less severe.

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