

## Prevalence of Lifetime Sexual Victimization Among Female Patients

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**Background.** State and federal statistics describe a lower incidence of rape and child abuse than is suggested by community prevalence rates. Victims of sexual assault may experience numerous short-term and long-term effects on psychosocial and physical health. They tend to use medical services more than nonvictims and are also more likely to seek medical care than mental health services. This study seeks to determine the prevalence of sexual victimization in a family practice setting.

**Methods.** Women 18 years of age or older presenting to a combined family practice and university student health center for a routine Papanicolaou smear or a health maintenance visit voluntarily completed an anonymous sexual experiences questionnaire of 28 close-ended items.

**Results.** Of 416 consecutive women, 405 agreed to participate. Of 147 family practice patients, 47.6% reported some type of contact sexual victimization during their lifetimes; 25.2% reported rape or attempted

rape. Of 258 student health service patients, 57% had experienced contact sexual victimization, and 28.7% reported rape or attempted rape. Of those who reported unwanted sexual contact, 30% of the family practice patients felt they would not be comfortable discussing the experience with medical personnel, and 44.9% of the student health service patients would not feel comfortable doing so.

**Conclusions.** Women with a history of unwanted sexual contact may be common in family practice and student health settings. Although treatment can be beneficial, many of these patients are not comfortable discussing their experiences with medical personnel. These findings suggest that there is potential benefit in obtaining a sexual victimization history as part of routine care, but further research will be necessary to assess the clinical benefit of such an approach.

**Key words.** Child abuse, sexual; rape; sex offenses; primary care; women. *J Fam Pract* 1992; 35:511-516.

Rape and childhood sexual assault are associated with numerous short-term and long-term effects on psychosocial and physical health including depression, anxiety, interpersonal problems, self-destructive behaviors,<sup>1-5</sup> sexually transmitted diseases,<sup>6,7</sup> chronic pelvic pain,<sup>8,9</sup> sexual dysfunction,<sup>10-12</sup> post-traumatic stress disorder,<sup>13</sup> rape trauma syndrome,<sup>14</sup> somatization,<sup>1-3,14-16</sup> and a high rate of use of medical and mental health services.<sup>5,16-18</sup>

The extent of child sexual abuse and sexual assault of women appears to be grossly underestimated by federal crime statistics and criminal victimization studies. A government-sponsored national study on child abuse conducted primarily on the basis of cases known to official child abuse agencies estimated an incidence rate of 2.5

cases of exploitation per 1000 children in 1986.<sup>19</sup> Federal Bureau of Investigation statistics collected from national law enforcement agencies reported that 89.3 per 100,000 women age 12 years or older had experienced rape or attempted rape in 1989.<sup>20</sup> Bureau of Census statistics reported 1.2 rapes per 1000 women age 12 years or older in 1989.<sup>21</sup> These figures do not accurately indicate the true scope of sexual exploitation or assaults at all ages since the majority of incidents are not reported to official agencies.<sup>22-24</sup>

Childhood sexual abuse prevalence rates derived from community surveys range widely, from 6.8% in the Los Angeles Epidemiologic Catchment Area Project,<sup>25</sup> to 38% among a sample of San Francisco women,<sup>26</sup> to 62% among a group of African-American and white women.<sup>27</sup> A 1990 national survey reported an intermediate rate of 27%.<sup>28</sup>

The prevalence of lifetime sexual assaults among women from community-based studies ranges from 5.9% in the Epidemiologic Catchment Area Program in

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Durham, North Carolina,<sup>3</sup> to 53% in a study of women residents of South Carolina.<sup>24</sup> Studies from United States communities that used legal standards to define rape have reported rates of attempted or completed rape from 20% to 25%.<sup>23,24,29,30</sup> These community-based studies vary in methodologies and findings but still make it abundantly clear that sexual victimization is a much more common experience in women's lives than our government statistics would indicate.

Despite this documented high prevalence in the community, the known health consequences of sexual victimization of women, and the frequently recommended approaches to therapy for these women in the family practice setting,<sup>31,32</sup> very little is known about the prevalence of sexual abuse in women presenting to general medical outpatient settings.

Drossman et al<sup>33</sup> found that 44% of women seen in a university-based gastroenterology practice reported an unwanted sexual experience in their lifetime; half of these reported attempted rape or rape. Greenwood et al<sup>34</sup> reported a prevalence rate of childhood sexual abuse of 16.9% among women presenting to the Mayo Clinic for a general medical examination. In a survey of 2291 women belonging to a health maintenance organization, Koss and colleagues<sup>35</sup> reported that 21% had experienced a completed rape.

This study seeks to assess the prevalence of a sexual abuse history in women seeking routine health maintenance in a family practice setting. High prevalences, as noted in the three aforementioned studies, would underscore the need to identify these victims and assist them in obtaining appropriate care.

## Methods

This is a cross-sectional description of the lifetime prevalence of sexual aggression and victimization among women coming to a primary medical care practice. The study was conducted in Durham, North Carolina, at the Pickens Health Center, the site of Duke University Medical Center's Division of Family Medicine. The practice population encompasses the Pickens Family Practice for Duke University employees and private patients from the Durham community, as well as the Duke University Student Health Service. The population studied consisted of women 18 years of age or older, coming to the Pickens Health Center for a routine Pap smear or health maintenance visit from November 1990 through February 1991.

Participants were recruited sequentially by the same female clinic staff (RNs, LPNs, and health educators) who regularly see our female patients before their routine health maintenance visits. Informed consent was obtained from

each patient before she was given the anonymous 28-item, close-ended, self-report questionnaire consisting of 6 demographic items and 22 sexual experience items. To assure privacy, the surveys were completed in either a private office or in an adjacent quiet hallway.

Seven questions were adapted from the Wyatt Sexual History Questionnaire<sup>27</sup> and assessed behavior-specific childhood sexual abuse using "yes," "no," or "not sure" responses. Childhood sexual abuse experiences were defined as unwanted or nonconsensual and having occurred before 18 years of age. The definition included sexual behaviors ranging from exhibitionism to sexual intercourse. All perpetrators were included in the definition regardless of their age or relationship to the victim.

Ten behavior-specific questions adapted from the Sexual Experiences Survey of Koss et al<sup>23</sup> assessed the prevalence of sexual aggression and assault upon women in adulthood. These items used a "yes" or "no" format to indicate whether the described behavior had been experienced since the age of 18 years. The behaviors ranged from unwanted sexual contact to rape and attempted rape. The behaviors that described the experience of rape or attempted rape met the legal definitions of these crimes in two thirds of the states.

The remaining five questions on the questionnaire pertained only to the subjects who reported childhood sexual abuse, or aggression or assault in adulthood. These questions asked when the assaults occurred, if they had been reported to anyone, and the degree of comfort the subjects felt in talking with medical personnel about their unwanted sexual experiences.

For purposes of analysis, the seven childhood sexual abuse questions were grouped into five categories: (1) noncontact (exposure, masturbation in front of child); (2) contact (eg, unwanted fondling, touching); (3) attempted rape; (4) rape; (5) any aggression (a positive response in any of these categories).

The 10 adult sexual assault or aggression questions were grouped into five categories: (1) contact (eg, unwanted fondling, kissing), (2) coercion (intercourse subsequent either to the misuse of authority or to verbal pressure that did not include verbal threat of force or direct use of physical force), (3) attempted rape, (4) rape, (5) any aggression (a positive response in any of these categories).

Lifetime prevalence rates of sexual aggression and victimization were calculated by combining adult and childhood abuse responses to determine prevalences for the following categories: (1) contact (eg, unwanted fondling or kissing, excluding rape or attempted rape), (2) attempted rape, (3) rape, (4) attempted rape or rape, (5) any contact aggression from any of the previous categories.

Table 1. Demographic Characteristics of 405 Female Primary Care Patients Recruited to Complete a Survey on Sexual Victimization

| Demographic Characteristics | Family Practice Patients<br>(n = 147) |        | Student Health Service Patients<br>(n = 258) |        |
|-----------------------------|---------------------------------------|--------|--|--------|
|                             | No.                                   | (%)    | No.  | (%)    |
| Marital status              |                                       |        |  |        |
| Single                      | 50                                    | (34.2) | 230  | (89.1) |
| Married                     | 68                                    | (46.6) | 24   | (9.3)  |
| Separated or divorced       | 28                                    | (19.2) | 4  | (1.6)  |
| Race                        |                                       |        |  |        |
| Black                       | 36                                    | (24.7) | 28   | (10.9) |
| White                       | 107                                   | (73.3) | 205  | (79.8) |
| Other                       | 3                                     | (2.1)  | 24   | (9.3)  |
| Age (y)                     |                                       |        |  |        |
| 18-24                       | 20                                    | (13.7) | 183  | (71.2) |
| 25-34                       | 69                                    | (47.3) | 66   | (25.7) |
| 35-44                       | 28                                    | (19.2) | 5  | (1.9)  |
| 45-54                       | 20                                    | (13.7) | 3  | (1.2)  |
| 55+                         | 9                                     | (6.1)  | 0  | (0)    |
| Education                   |                                       |        |  |        |
| High school or less         | 23                                    | (16.1) | 0  | (0)    |
| Some college                | 31                                    | (21.7) | 141  | (54.9) |
| College graduate            | 56                                    | (39.2) | 0  | (0)    |
| Graduate work or degree     | 33                                    | (23.1) | 116  | (45.1) |

Percentages do not total 100% for all characteristics because of incomplete data on some questionnaires.

ries. These categories are overlapping because a patient may have had experiences in more than one category.

The chi-square statistics were used to test the relationship between the demographic variables and the prevalence rates for the different categories of sexual aggression and victimization.

## Results

Of 416 consecutive women patients approached, 405 (97%) consented to participate. Of these, 147 were family practice patients and 258 were student health service patients. Because these two groups were so different demographically and in their lifestyles, their data are reported separately for most analyses.

Table 1 lists the demographic characteristics of both groups. The family practice patients were mostly married or had been married. They were predominantly white, but a significant proportion were minorities (26.8%). The mean age was 35.0 years  $\pm$  11.4 years (SD) with 86% above the age of 24 years. Sixty-two percent were college graduates. The student health service patient population was composed of 55% undergraduates and 45% graduate students. Their mean age was 23.1 years  $\pm$  5.03 years (SD). As a group they were significantly more likely to be single, white, less than 25 years old, and more educated ( $P < .01$  for all comparisons).

The childhood sexual victimization rate of family practice patients was high at 36.7% (Table 2). Childhood rape was a significant (8.2%) component, as were attempted rape and other forms of unwanted sexual contact. Contact abuse (unwanted fondling, touching) was the most common form of childhood sexual abuse (29.3%). The student health service patients' experiences were significantly lower than those of family practice patients for contact abuse ( $P = .04$ ) and attempted rape ( $P = .03$ ).

Adult experiences of the family practice patients are also shown in Table 2. Approximately 40% recalled some form of sexual aggression since the age of 18 years; 7.5%

Table 2. Prevalence of Childhood and Adulthood Sexual Victimization Reported by 405 Female Primary Care Patients

| Unwanted Sexual Experience*  | Family Practice Patients<br>(n = 147) |             | Student Health Service Patients<br>(n = 258) |              | P Value   |
|------------------------------|---------------------------------------|-------------|--|--------------|-----------|
|                              | %                                     | (95% CI)    | %  | (95% CI)     |           |
| Childhood (< 18 years old)   |                                       |             |  |              |           |
| Noncontact                   | 25.9                                  | (18.8-32.9) | 27.5   | (22.1-33.01) | NS        |
| Contact                      | 29.3                                  | (21.9-36.6) | 20.2   | (15.3-25.1)  | .038      |
| Attempted rape               | 12.9                                  | (7.5-18.3)  | 6.6  | (3.6-9.6)    | .028      |
| Rape                         | 8.2                                   | (3.7-12.6)  | 3.9  | (1.5-6.2)    | NS        |
| Any aggression               | 36.7                                  | (28.9-44.5) | 34.5   | (28.7-40.3)  | NS        |
| Adult ( $\geq$ 18 years old) |                                       |             |  |              |           |
| Contact                      | 32.7                                  | (25.1-40.2) | 39.5   | (33.6-45.5)  | NS        |
| Coercion                     | 19.7                                  | (13.3-26.2) | 26.0   | (20.6-31.3)  | NS        |
| Attempted rape               | 17.0                                  | (10.9-23.1) | 17.1   | (12.5-21.6)  | NS        |
| Rape                         | 7.5                                   | (3.2-11.7)  | 15.5   | (11.1-19.9)  | .019      |
| Any aggression               | 40.1                                  | (32.2-48.1) | 50.0   | (43.9-56.1)  | NS (.056) |

\*These categories can be overlapping; thus, the total percentages may be greater than 100%. "Not sure" responses (2.5% of all items) were coded "no."

NS denotes not significant.

Table 3. Prevalence of Lifetime Sexual Victimization Reported by 405 Female Primary Care Patients

|  | Family Practice Patients<br>(n = 147)<br>% (95% C1) | Student Health Service Patients<br>(n = 258)<br>% (95% C1) |
|--|---|--|
| Unwanted Sexual Experience*                |   |  |
| Contact (excluding rape or attempted rape) | 22.4 (15.7–29.2)                                    | 28.3 (22.8–33.8)   |
| Attempted rape                             | 23.1 (16.3–29.9)                                    | 20.5 (15.6–25.5)   |
| Rape                                       | 12.9 (7.5–18.3)                                     | 17.8 (13.2–22.5)   |
| Attempted rape or rape                     | 25.2 (18.2–32.2)                                    | 28.7 (23.2–34.2)   |
| Any contact aggression                     | 47.6 (39.5–55.7)                                    | 57.0 (50.9–63.0)   |

\*These categories can be overlapping; thus, the total percentages may be greater than 100%. "Not sure" responses (2.5% of all items) were coded "no".  
None of the prevalence rates were significantly different when analyzed using chi-square.

had been raped, 17.0% had suffered attempted rape. Coercion and unwanted sexual contact were also quite common. The student health service patients had similar prevalence rates, though rape was twice as common (15.5%) ( $P = .02$ ).

The prevalence of unwanted childhood and adult experiences varied by only two of the demographic variables recorded (the student health service and family practice patients were combined for these analyses). Specifically, separated or divorced individuals were more likely to report childhood noncontact abuse (43.8%) than single women (23.9%) and married women (30.4%) ( $P = .04$ ). Likewise, they were more likely to report childhood contact sexual abuse ( $P = .02$ ). Women with college degrees were more likely to report childhood rape (10.7%) than women with postgraduate educations (2.0%) and those with less than a college education (6.7%) ( $P = .03$ ). Single and separated or divorced women were more likely to report adult rape or attempted rape (26.4% and 21.9%, respectively) than married patients (14.1%) ( $P = .05$ ). Finally, women with postgraduate educations reported more sexual coercion (32.1%) than women with college degrees (17.8%) or less education (19.0%) ( $P < .01$ ), and they reported more sexual victimization of any type (56.4%) than women with college degrees (42.9%) or those with less education (40.0%) ( $P < .01$ ).

Table 3 lists the prevalences of lifetime sexual aggression or victimization of both groups. The two groups had similar prevalence rates in all categories. Fifty-seven percent of student health service patients and 47.6% of family practice patients reported experiencing some form of unwanted sexual contact in their lifetime. Twenty-eight percent of student health service patients and 25.2% of family practice patients reported the experience of rape or attempted rape in their lifetime.

The lifetime prevalence rates of sexual aggression and

victimization did not vary by any demographic variables except for educational status. Women with postgraduate education (34.2%) were more likely than individuals with college degrees (23.2%) or less education (21.5%) to report unwanted fondling, kissing, or coerced intercourse, excluding rape or attempted rape ( $P = .04$ ).

When asked how comfortable they would feel about discussing their sexual victimization with medical personnel, 50% of the family practice patients who had experienced rape felt that they could discuss these matters only with difficulty or would not talk about these matters at all. For attempted rape, however, only 13.3% would have difficulty discussing it or would be unable to discuss it at all. Thirty percent would have difficulty discussing other contact sexual abuse. The student health service patients, in comparison, were less willing to discuss their attempted rape (30%) and were less likely to discuss other contact victimization (44.9%). The small number of family practice patients makes statistical comparisons between the groups imprecise.

## Discussion

The lifetime prevalence rates of sexual victimization and the prevalence rates of childhood sexual abuse reported by the female patients in this study are similar to those drawn from several community surveys<sup>23,24,26,28–30</sup> and from other clinical settings.<sup>33,35</sup> In addition to the significant proportion of these women who had experienced victimization of any type (47.6% to 57%), a large proportion of the victimized individuals felt they would have great difficulty discussing their experience with a medical professional or would not be able to discuss it at all (for rape, 47.6% to 50%).

These findings are likely to be an underestimate of the true prevalence of sexual abuse in our practice. Our sample included only well women who were seeking health maintenance, and this sample would be expected to have fewer victims than a sample including patients presenting for appointments with specific psychological or physical complaints. These latter patients are more likely to be victims, as victims have been shown to be more frequent users of medical care.<sup>5,16–18</sup> We are not aware of any studies however, that investigated whether victims use preventive health care services either more or less than women who have not been victimized.

Another potential cause of bias in this estimate was the use of a self-report questionnaire; a questionnaire is believed to produce lower estimates of abuse than face-to-face interviews,<sup>36</sup> which have estimated prevalences as high as 41% (rape or attempted rape)<sup>29</sup> and 62% (sexual abuse before age 18 years).<sup>27</sup> Wyatt and Peters<sup>36</sup> suggest that the

face-to-face interview may facilitate the process of recall and disclosure by subjects and allows clarification of subjects' misperceptions and more elaborate questioning.

We based our self-report questionnaire on the Sexual Experience Survey of Koss and co-workers,<sup>23</sup> which, when used on a national sample of 18- to 24-year-old students, resulted in prevalence rates quite similar to those found among this study's student health service patients (of similar age): 53.7% of Koss's students reported unwanted sexual contact, compared with this study's 57%; 27.5% of Koss's students reported rape or attempted rape, compared with 28.7% of this study's students. This similarity in results using similar methods and similar subjects suggests that the biases in our study were limited to those noted above.

Lifetime prevalence rates among patients varied only by level of education, and this was only for unwanted contact excluding attempted rape or rape. Patients with postgraduate education report these experiences more than patients with less education. Sorenson et al<sup>37</sup> found this same phenomenon in non-Hispanic white women. There are no other studies with such highly educated patients, and explanations of this phenomenon are speculations at best. One such explanation is that the more highly educated women may draw a finer line between consensual vs nonconsensual sexual contact, as a result of increased exposure to the issues of sexual assault through the media and the academic settings in which they have trained. It may also be true that these women are subject to more unwanted sexual contact simply because their work may place them in more isolated positions.

About 40.5% of the women patients who reported some type of unwanted sexual contact in their lifetime would not discuss, or had difficulty discussing, their experience with medical personnel. This rate increased to 48.3% for women who reported being raped. It is not just medical personnel in whom these women are not confiding; 31.7% of the rape victims did not tell anyone about their experiences. These findings are comparable to those found in the study by Drossman et al<sup>33</sup> in a gastroenterology clinic, where 30% of sexually victimized women indicated that they had never disclosed their experience to anyone, 59% had not discussed the abuse with their current family, and only 35% had discussed their experiences with a professional.

Several implications for clinical practice and training can be derived from our findings. First, primary medical care practitioners need to become more aware of the marked prevalence and of the potential consequences of sexual assault, both acute and chronic. Second, as patients are quite unlikely to volunteer information about their sexual victimization, we must teach, learn, and use methods for eliciting a history of sexual abuse as de-

scribed in the medical literature.<sup>1,38,39</sup> If screening questions are not incorporated into the routine gynecologic interview, primary medical care practitioners must at least know which presenting complaints may signal a history of unresolved sexual trauma. It is equally important that the clinician be able to evaluate whether the patient has adaptively resolved the sexual victimization. Criteria have been described by Koss and Harvey.<sup>40</sup>

Of course, detection is somewhat dependent on the availability of useful treatment, particularly for the chronic undetected victim of sexual assault. There are a number of strategies for counseling or referral of the sexual assault victim in the family medicine literature.<sup>31,32</sup> Although they are consistent with other therapies of generally accepted benefit, there have been no evaluation trials of these therapies in the family medicine setting.

The research implications are clear. There is a strong need for surveys in a variety of family practice or primary care settings using fact-to-face methods such as those described by Wyatt and Peters.<sup>36</sup> Such studies would give a more accurate estimate of the prevalence of sexual assault among primary care patients. Adequate funding for this research is essential. Studies of larger numbers of family practice patients will provide adequate power for analyses of subgroups such as race, age, or socioeconomic factors. Trials are needed to identify methods for detecting victimization and to evaluate the outcomes of detection; detection and intervention that is not appropriate to the patient's current state of mind may do more harm than good. Trials of specific treatments for sexual victimization are necessary in the family practice setting.

Finally, men are also victims of sexual assault both as children and as adults. Little is known about the prevalence of a sexual assault history in male family practice patients. A study by Golding et al,<sup>17</sup> however, did find that, in the Los Angeles Epidemiologic Catchment Area, 15.5% of non-Hispanic white men and 5.3% of Hispanic men reported a history of sexual assault. There were no differences in mental health care services or general medical services, contrary to the increase described in women. Much less is known, however, about the association of mental or medical illness and health care utilization of male sexual assault victims as compared with female victims, especially in primary care settings.

The data reported here indicate that the prevalence of sexual victimization of women seen in a university-based primary medical care practice is substantive and comparable with, if not higher than, the prevalence reported in the general population. A history of past sexual victimization can have a significant impact on a patient's health status, yet it is not commonly disclosed to medical personnel. Primary care clinicians are in a key position to identify sexually traumatized patients and to facilitate appropriate care or

referral if necessary. Accurate assessment of sexually victimized patients may minimize unnecessary medical treatment and enhance their overall health status. Studies are needed in more representative primary care settings that include male patients, use more direct assessment methods, and compare the health status of sexually victimized patients and their rates of health care utilization.

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