# Women Veterans' Experiences With Domestic Violence and With Sexual Harassment While in the Military

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**Background:** Both domestic violence and sexual harassment may adversely affect women's health but often go unrecognized.

**Objective:** To assess women veterans' experiences with domestic violence and with sexual harassment while in the military as well as the relationship of such experiences to health and health care utilization.

**Methods:** We surveyed all 191 women hospitalized from March 1992 to 1993 at the Minneapolis (Minn) Veterans Affairs Medical Center and 411 randomly selected female outpatients. Data were collected using an anonymous validated questionnaire.

**Results:** Results were stratified by age and analyzed using both bivariable and multivariable techniques. Twenty-four percent of respondents under age 50 years reported domestic violence in the past year and 90% reported sexual harassment while in the military. Among older respondents, 7% said they had experienced domestic violence in the past year and 37% reported a history of sexual harassment while in the military. Of those who reported domestic violence in the past year, 50% of respondents under age 50 years and 28% of older respondents said that at least one assault was life-threatening. Rates of reports of completed and attempted sexual assaults while in the military were 20 times higher than previous reports by other government employees. Respondents with a history of either domestic violence (odds ratio, 2.83; 95% confidence interval [CI], 1.38 to 5.78) or sexual harassment while in the military (odds ratio, 2.84; 95% CI, 1.22 to 6.53) were more than twice as likely to report a history of anxiety or depression, and a history of domestic violence was associated with more lifetime surgical procedures (odds ratio, 1.21; 95% CI, 1.10 to 1.33).

**Conclusions:** Histories of domestic violence within the past year and of sexual harassment while in the military are common among women veterans. Both may be associated with adverse effects on mental and physical health.

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DOMESTIC VIOLENCE and sexual harassment are serious crimes that predominantly affect women.[1-3] Perpetrators are known to their victims, and the crimes tend to occur in places that are traditionally thought to be safe havens—the home and the workplace. Both are costly personal and public health problems. Eight to 12 million women are assaulted each year by their partners,[4,5] and domestic violence is the single most important cause of injury to women.[5] Approximately 20% to 30% of emergency department visits made by women are because of domestic violence,[6-8] and family violence may cost as much as 7% of the gross national product.[9] Sexual harassment is also a significant problem, occurring in as many as 40% of government-employed women[1] and 80% of women employed in certain male-dominated professions.[10] It is estimated that sexual harassment cost the US government $267 million in lost productivity between 1985 and 1987.[1]

Studies have demonstrated that childhood abuse and adulthood stranger victimization may lead to increased health care utilization,[11] poorer health habits,[11,12] greater symptom reporting,[13] more lifetime surgical procedures,[13] and increased mental illness[14] among women. These effects have been reported to persist years after the index event(s).[11-14] While there is evidence that both domestic violence and sexual harassment may be associated with depression,[4,15-17] these stud-

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## METHODS AND MATERIALS

### SETTING

The Minneapolis (Minn) Veterans Affairs Medical Center (MVAMC) is a university-affiliated 500-bed teaching hospital with 300 000 outpatient visits and 15 000 hospitalizations per year. Both primary and tertiary care are provided to approximately 40 000 veterans per year. Approximately 2000 women are treated as outpatients at the MVAMC annually.

### SUBJECTS

All 191 women who had been hospitalized at the MVAMC between March 1992 and March 1993 and 411 randomly selected women who had been seen at any MVAMC outpatient clinic during the same period were eligible for participation in the study. There was considerable overlap between the two groups, and the final sample included 487 unique individuals. Seven women who had died or left no forwarding address were excluded from the final sample.

### SURVEY PROTOCOL

An anonymous self-administered questionnaire was sent to the homes of all eligible participants. Each woman received three mailings. The second and third mailings instructed women to return the survey only if they had not previously done so. All women were sent a follow-up letter with community resources for domestic violence. With each survey they were also given the telephone number of one of the authors (M.M.). Survey recipients were encouraged to use this number if the questionnaire "brought up things they wished to discuss." Women who wrote or called with concerns referable to domestic violence or sexual harassment were referred to a clinical social worker. The study protocol was reviewed and approved by the MVAMC Human Subjects Subcommittee and the University of Minnesota Committee on the Use of Human Subjects in Research.

### QUESTIONNAIRE

The questionnaire asked about general demographic data, military service, preferences regarding physician screening of domestic violence, and health care utilization. Information on race was not obtained since fewer than 2% of the women served by the MVAMC are from ethnic minorities.

Comorbid conditions were assessed from a review-of-systems checklist[18] and an adaptation of the Charlson Comorbidity Index.[19] Health habits were assessed with a modified intake screening questionnaire, previously developed and used in the MVAMC's Women's Preventive Health Clinic.

Domestic violence was assessed using the Conflict Tactics Scale,[20] which has been shown to have face, construct, and concurrent validity in identifying women who have suffered domestic abuse.[20,21] However, the Conflict Tactics Scale does not ask about sexual violence or the consequences of specific violent events and thus risks misclassifying severely abused women.[22] Accordingly, we added four questions, one about sexual violence and three that asked about the consequences of individual abusive events. Respondents were considered to have "recent" cases of domestic violence if they responded positively to one or more questions on the portion of the Physical Aggression subscale of the modified Conflict Tactics Scale that dealt with the past year. Women who did not meet the criteria for recent case status but who responded positively to one or more questions on the portion of the Physical Aggression subscale of the modified Conflict Tactics Scale that dealt with lifetime prevalence were considered to have "remote" cases of domestic violence.

Women's experiences with sexual harassment in the military were assessed by the Sexual Harassment Inventory, a scale developed by one of the authors (M.M.). Previous work indicated that the scale had evidence of factorial and convergent validity (M.M., unpublished data, 1993). The instrument was adapted for use among military personnel and then reviewed by a licensed clinical psychologist and a clinical social worker, both of whom work with sexually harassed veterans. Both believed that the instrument had face and content validity. The Sexual Harassment Inventory asks about specific types of behavior that may constitute sexual harassment.

### STATISTICAL ANALYSIS

Bivariable analyses comparing respondents with and without a history of sexual harassment while in the military and respondents with and without a history of domestic violence were conducted using Student's $t$ test[23] for continuous variables and Pearson's $\chi^2$ tests[23] for categorical variables. Mantel-Haenszel tests for linear association[24] were calculated for hierarchical categorical variables, and logistic regression (SPSS 5.0 for Windows, SPSS Inc, Chicago, Ill) was used to assess the independent contribution of study variables to cases status for sexual harassment while in the military and domestic violence while controlling for covariates and potential confounders. Variables with skewed distributions were transformed or dichotomized for multivariable analyses.

All results were stratified by age both to control for our sampling method (which resulted in overrepresentation of women over the age of 50 years) and to reflect the different experiences of women veterans before and after Vietnam. The possibility of residual confounding was explored by using age as both a dichotomous and continuous variable in multivariable models. If residual confounding by age were present, the continuous term would be significant.

ies have been limited by their failure to control for potentially confounding variables. Little has been done to examine the effects of either domestic violence or sexual harassment on health care utilization.

The purpose of our study was to assess the prevalence of domestic violence and previous exposure to sexual harassment while in the military in a population of women veterans. With the publicity surrounding the Tailhook scandal, sexual harassment in particular has become an increasingly recognized problem that has generated ongoing interest. Our secondary objective was to determine if a history of either domestic violence or sexual

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**Table 1. Demographic Characteristics of Survey Respondents by Case Status*†**

| Variable | Domestic Violence in Past Year | | | | Sexual Harassment While in the Military | | | |
|---|---|---|---|---|---|---|---|---|
| | Age <50 y | | Age ≥50 y | | Age <50 y | | Age ≥50 y | |
| | Yes (n=32) | No (n=100) | Yes (n=14) | No (n=187) | Yes (n=119) | No (n=13) | Yes (n=74) | No (n=127) |
| Branch of service, % | | | | | | | | |
| Army | 59 | 55 | 29 | 39 | 55 | 69 | 35 | 39 |
| Navy | 17 | 14 | 36 | 36 | 16 | 0 | 36 | 36 |
| Marines | 9 | 9 | 14 | 6 | 9 | 8 | 8 | 6 |
| Air force | 13 | 20 | 21 | 13 | 18 | 23 | 16 | 13 |
| Other | 3 | 2 | 0 | 5 | 3 | 0 | 4 | 4 |
| Mean time since military separation, y | 8.3 | 11.4 | 42.8 | 44.6 | 10.0 | 16.7‡ | 43.1 | 45.3§ |
| Married/cohabiting, % | 55 | 51 | 71 | 35‡ | 52 | 54 | 45 | 32 |
| Employment, % | | | | | | | | |
| Currently employed | 38 | 53 | 7 | 9 | 48 | 61 | 12 | 6 |
| Student | 13 | 12 | 0 | 0 | 13 | 0 | 0 | 0 |
| Other | 50 | 35 | 93 | 90 | 39 | 38 | 86 | 94 |
| Education, % | | | | | | | | |
| <11 y | 0 | 0 | 14 | 9 | 0 | 0 | 5 | 11 |
| High school graduate | 38 | 12 | 21 | 30 | 18 | 15 | 31 | 28 |
| Vocational school | 3 | 12 | 28 | 13 | 8 | 23 | 16 | 13 |
| College or beyond | 60 | 76‖ | 35 | 48 | 73 | 61 | 47 | 49 |

* *P values test for within-stratum side-by-side differences between those who reported and did not report recent domestic violence and between those who reported experiencing sexual harassment while in the military and those who did not.*

† *Percentages may not add to 100% because of rounding errors.*

‡ $P \leq .01$.

§ $P \leq .05$.

‖ *Mantel-Haenszel* $\chi^2$ *test for trend, 6.97;* $P = .008$.

harassment was associated with higher rates of hospitalization, emergency department visits, lifetime surgical procedures, comorbid conditions, or histories of anxiety or depression, or with poorer health habits.

## RESULTS

After we excluded the seven women who had either died or moved and left no forwarding address, our final sample size was 480. There were 333 questionnaires returned, for a response rate of 69%. Women who had been previously hospitalized were significantly less likely to return a survey than outpatients (response rate, 61% vs 76%; *P*=.01). Four women wrote or called with requests for counseling or referral for problems related to domestic violence or sexual harassment.

### RESPONDENT CHARACTERISTICS

The age of our sample followed a bimodal distribution, with peaks in the fourth and seventh decades and a natural break at age 50 years. The mean age of our respondents was 55 years, with a median age of 63 years. Other demographic characteristics of our survey respondents are shown in **Table 1**. There was a striking association between age and reports of either recent domestic violence or sexual harassment while in the military. Of those respondents under age 50 years, 24% reported having experienced domestic violence in the past year and 90% reported a history of sexual harassment while in the military. Among older respondents, 7% met our criteria for recent domestic violence case status and 37% reported a history of sexual harassment while in the military. The army was the branch of service in which most of the respondents served, but the branch of service did not vary significantly by case status. However, in both age strata, the date of military separation was significantly more recent among respondents who reported a history of sexual harassment while in the military. Among those who reported a recent history of domestic violence, women in the older stratum were significantly more likely to be married, and women in the younger stratum reported significantly fewer years of education. There was no association in either age group between reporting a history of sexual harassment while in the military and marital status, employment, or education.

### NATURE OF DOMESTIC VIOLENCE

The individual experiences of respondents, as measured by the Conflict Tactics Scale, are shown in **Table 2**. The lifetime prevalence of domestic violence was 40% among respondents younger than 50 years and 20% among women in the older stratum. Of the women under age 50 years who said they had been physically assaulted by a partner in the past year (meeting our case definition of recent domestic violence), 100% said they had suffered at least one severe assault, 50% said they had suffered at least one life-threatening assault, and 31% said they had been forced to have sex without their consent. Among women with recent cases who were 50 years or older, 64% reported at least one severe assault, 28% reported a life-threatening assault, and 29% said they had been sexually assaulted at least once.

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**Table 2. Nature of Domestic Violence Experienced by Respondents According to the Modified Conflict Tactics Scale***

| Respondent's Partner | Age <50 y (n=132) Past Year | Age <50 y (n=132) Lifetime | Age ≥50 y (n=201) Past Year | Age ≥50 y (n=201) Lifetime |
|---|---|---|---|---|
| Minor violence | | | | |
| Threw something at respondent | 6 | 20 | 2 | 9 |
| Pushed, grabbed, or shoved respondent | 17 | 36 | 4 | 14 |
| Slapped respondent | 6 | 21 | 3 | 12 |
| Severe violence | | | | |
| Kicked, bit, or hit respondent with fist | 6 | 22 | 1 | 9 |
| Hit or tried to hit respondent with something | 8 | 14 | 2 | 7 |
| Beat respondent up | 2 | 16 | 1 | 5 |
| Choked respondent | 2 | 19 | 1 | 5 |
| Life-threatening violence | | | | |
| Threatened respondent with a knife or gun | 2 | 14 | 1 | 4 |
| Used a knife or gun against respondent | 3 | 5 | 1 | 1 |
| Made respondent have sex without her consent | 8 | 14 | 2* | 7 |

Experienced by Respondents, %†

*The Conflict Tactics Scale has been modified by the addition of a question about sexual abuse.
†Percentages do not add to 100% because some respondents experienced multiple forms of abuse.

## NATURE OF SEXUAL HARASSMENT WHILE IN THE MILITARY

The individual experiences of respondents as measured by the Sexual Harassment Inventory are listed in **Table 3**. In the younger stratum, there was greater reporting of every type of sexual harassment. Twenty-five percent of younger respondents reported that they had either been raped or experienced an attempted rape by a coworker or supervisor while in the military, compared with 8% of respondents aged 50 years or older. Eighteen percent of respondents younger than age 50 years said they had had promotions or transfers blocked or had been given poor assignments after refusing superior officers' requests for sexual favors. Three percent of respondents 50 years or older reported similar experiences. Fourteen percent of respondents in the younger stratum reported that they had been offered favorable assignments or promotions in exchange for sex, as did 2% in the older group.

## HEALTH CHARACTERISTICS

**Table 4** summarizes the health characteristics of respondents according to their case status. In nearly all cases and in both strata, the parameters were in the expected direction, with respondents who reported either recent domestic violence or a history of sexual harassment while in the military also reporting poorer health, greater numbers of symptoms, poorer health habits (except among older women with cases of recent domestic violence), greater numbers of surgical procedures, more emergency department visits, more hospitalizations within the past year, more-frequent histories of anxiety or depression, and greater enrollment in the MVAMC Mental Health Clinic. However, among those who reported a history of domestic violence in the past year, only symptom reporting and number of lifetime surgical procedures were significant in both strata. A history of anxiety or depression was statistically significant in the older stratum and approached significance in the younger group ($P$=.06). Among women who reported a history of sexual harassment while in the military, only poorer health habits and a history of anxiety or depression were statistically significant in both strata. Remote domestic violence case status (ie, partner assault in one's lifetime but not in the past year) was not associated with a history of anxiety or depression, symptom reporting, or lifetime surgical procedures, nor was it associated with other health parameters measured in the study (data not shown).

## PHYSICIAN SCREENING

Of respondents with a recent history of domestic violence, 52% younger than 50 years and 75% of those 50 years or older remembered having been asked about violence by a physician. Of the entire sample, only 19% of either age group remembered being asked. Seventy-two percent of respondents, regardless of age or case status, believed physicians should routinely inquire about domestic violence.

## MULTIVARIABLE LOGISTIC REGRESSION

To assess the independent contribution of study variables to case status for domestic violence and sexual harassment while in the military while controlling for potentially confounding variables, we used multivariable logistic regression techniques. The variables presented for multivariable modeling can be seen in **Table 5**. After controlling for other covariates and confounders, we found that respondents younger than 50 years were nearly five times as likely as older respondents to report a history of recent domestic violence, and the prevalence of recent domestic violence was more than two times higher among those who were married or cohabiting. Both the number of lifetime surgical procedures reported by respondents and a reported history of anxiety or depression remained significantly associated with current domestic violence case status. No residual confounding was

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**Table 3. Sexual Harassment Experienced by Survey Respondents According to the Sexual Harassment Inventory**

| | Experienced by Respondents, %* | |
|---|---|---|
| | Age <50 y (n=132) | Age ≥50 y (n=201) |
| **Coworker** | | |
| Made sexual jokes that made respondent feel uncomfortable | 55 | 18 |
| Though asked to stop, frequently asked respondent for dates | 29 | 10 |
| Made demeaning comments to respondent because of her gender | 51 | 10 |
| Made sexual comments about respondent's body | 53 | 15 |
| Put up provocative posters of women | 29 | 4 |
| Leered at respondent in a sexual way | 42 | 10 |
| Made catcalls or sexual remarks when respondent walked by | 64 | 24 |
| Attempted to have sex with respondent without her consent | 20 | 5 |
| **Supervisor, superior officer, or commanding officer** | | |
| Made sexual comments about respondent's body | 36 | 5 |
| Though asked to stop, asked respondent for dates | 26 | 6 |
| Offered favorable assignments for sex | 11 | 1 |
| Offered promotions in exchange for sex | 9 | 1 |
| Threatened to block a promotion unless respondent agreed to have sex | 11 | 2 |
| Attempted to have sex with respondent without her consent | 14 | 2 |
| **Either coworker or supervisor, superior officer, or commanding officer** | | |
| Gave respondent the most unpleasant, difficult assignments because of her gender | 23 | 3 |
| Touched respondent in ways that made her feel uncomfortable | 38 | 8 |
| Exposed themselves to respondent in a sexual way | 14 | 2 |
| Prevented a promotion, favorable assignment, or transfer because respondent refused to have sex | 13 | 2 |
| Forced respondent to have sex without her consent | 11 | 1 |
| Other | 30 | 11 |

**Percentages do not add to 100% because some respondents experienced multiple types of sexual harassment.*

demonstrated when age was added as a continuous variable (data not shown).

When time since military separation was taken into account, the association between age and a history of sexual harassment while in the military disappeared. This was true even when age was entered as a continuous variable (data not shown). As with domestic violence case status, respondents with a history of sexual harassment while in the military were almost three times as likely as brespondents without such a history to report a history of anxiety or depression. Adjusted odds ratios and parameter estimates for both models are shown in Table 5.

## COMMENT

Our study demonstrates that both domestic violence and a history of sexual harassment while in the military are common, as reported by female veterans. In particular, a history of sexual harassment while in the military was extremely common, reported by almost 40% of respondents 50 years or older and by 90% of younger respondents.

When the experiences of our respondents were reported without regard to age, 14% said they had been assaulted by a partner in the past year and 28% lifetime. These findings are similar to the experiences of respondents reported by Gin et al[25] and Feld and Straus.[26] However, combining the two groups in this manner obscures the extraordinarily high rates of violence experienced by respondents under the age of 50 years. When only married or cohabiting women under the age of 50 years are considered, the past-year prevalence of domestic violence was 25% in our study, compared with 19% in the 1985 Family Violence Resurvey.[27] Among married or cohabiting women 50 years or older, the prevalence was 14%, compared with 7% in the Family Violence Resurvey. However, these differences can be explained by our addition of a question about sexual abuse to the Conflict Tactics Scale. When the question is eliminated, our case finding is essentially the same as that of the Family Violence Resurvey. Using similar methods, it appears that female veterans' experiences with domestic violence are comparable to those of the general population.

An important but often undocumented component of battering is sexual violence. Regardless of age, approximately one third of our respondents with a history of recent domestic violence also reported sexual abuse by their partner. In a study of married or cohabiting women conducted by Hanneke et al,[28] 30% of the battered women had also been raped by their partner. Others have documented the occurrence of sexual abuse in conjunction with domestic violence to be between 33% and 50%.[3] Sexual abuse in the presence of violent relationships has been found to be associated with severe violence and homicide attempts.[28-30] In this study, the addition of one question about sexual abuse increased our overall case finding by nearly 7%. Therefore, for purposes of case finding or for determining the severity of ongoing domestic violence, we suggest that questions about sexual violence should be routine.

In addition to demonstrating the importance of stratifying domestic violence histories by age, our study raises some intriguing epidemiological questions. In adults, younger age is a well-established risk factor for domestic violence[25,27] as well as for violence of other types.[31,32] Logically, lifetime prevalences of domestic violence would be expected to increase or at least plateau with age. However, our findings suggest the opposite. A possible explanation is that violence has become dramatically more prevalent in recent years. Younger veterans may be closer to a culture of violence or may be more prone to meet and marry violent men. On the other hand, domestic violence is theorized to be the result of a patriarchal society that tolerates violent mores within marriages.[15,33,34] To the extent that domestic violence is less normative and society is less patriarchal today than it was 20 years ago,[35,36] it seems unlikely that there should be a dramatic increase in the prevalence of husband-to-wife violence within the same

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**Table 4. Health Characteristics of Survey Respondents by Case Status***

| | Domestic Violence in Past Year | | | | Sexual Harassment While in the Military | | | |
|---|---|---|---|---|---|---|---|---|
| | Age <50 y | | Age ≥50 y | | Age <50 y | | Age ≥50 y | |
| Variable | Yes (n=32) | No (n=100) | Yes (n=14) | No (n=187) | Yes (n=119) | No (n=13) | Yes (n=74) | No (n=127) |
| Charlson Comorbidity Index score†‡ | 1.28 | 1.15 | 3.0 | 2.33 | 1.20 | 1.00 | 2.54 | 2.28 |
| No. of symptoms† | 7.9 | 4.8§ | 13.6 | 7.0‖ | 5.73 | 3.61 | 8.75 | 6.76§ |
| Health Habits Index score†¶ | 0.52 | 0.48 | −0.54 | −0.31 | 0.65 | −1.02§ | 0.25 | −0.65§ |
| No. of lifetime surgical procedures† | 5.1 | 3.1§ | 9.8 | 4.0§ | 3.6 | 3.1 | 5.3 | 3.8§ |
| No. of emergency department visits in past 5 years† | 5.8 | 1.9 | 2.4 | 1.6 | 3.0 | 1.5 | 2.3 | 1.3 |
| Hospitalized in past year, % | 41 | 25 | 50 | 37 | 31 | 8 | 39 | 37 |
| History of anxiety or depression, % | 47 | 29 | 50 | 21§ | 36 | 8§ | 32 | 18§ |
| Enrolled in mental health clinic, % | 34 | 21 | 21 | 12 | 26 | 8 | 15 | 12 |

**P* values test for within-stratum side-by-side differences between those who reported and did not report domestic violence within the past year and between those who reported experiencing sexual harassment while in the military and those who did not.*
†*Values are means.*
‡*Higher scores indicate poorer health.*
§*P*≤*.05.*
‖*P*≤*.001.*
¶*Higher scores indicate poorer health habits.*

**Table 5. Variables Independently Associated With Recent Domestic Violence and Sexual Harassment While in the Military Among Female Veterans***

| Variable† | Adjusted Odds Ratio (95% CI) | Coefficient (SE) | *P* |
|---|---|---|---|
| | **Recent Domestic Violence** | | |
| Age <50 y | 4.98 (2.34-10.59) | 1.6059 (0.3850) | <.001 |
| Married/cohabiting | 2.03 (0.99-4.16) | 0.7063 (0.3666) | .05 |
| No. of lifetime surgical procedures | 1.21 (1.10-1.33) | 0.1893 (0.0487) | .001 |
| History of anxiety or depression | 2.83 (1.38-5.78) | 1.0392 (0.3649) | .004 |
| | **Sexual Harassment While in the Military** | | |
| Years since military separation | 0.92 (0.90-0.94) | −0.0832 (0.0104) | <.001 |
| History of anxiety or depression | 2.84 (1.22-6.53) | 1.0436 (0.4251) | .002 |

**Data represent the results of stepwise logistic regression. CI indicates confidence interval.*
†*Other variables in the recent domestic violence model include education. Other variables in the military sexual harassment model include age under 50 years and Health Habits Index score.*

time. Consistent with this reasoning, a comparison of the 1975 Family Violence Survey and the 1985 Family Violence Resurvey indicates that the age-adjusted lifetime prevalence of domestic violence has changed only slightly, if at all.[27] An alternative explanation for the decreasing cumulative prevalence with age may touch on limitations associated with cross-sectional studies. Differential reporting by age (eg, respondent bias, rumination bias, or unacceptability bias[37]) and incidence-prevalence bias[37] (according to which patients with severe cases do not survive to be counted) may have affected our study. Resolution of these issues awaits a prospective cohort study.

Although a history of sexual harassment while in the military was by no means rare among respondents 50 years or older, occurring in nearly 40%, for women under the age of 50 years it was nearly universal. The rate of sexual harassment reported by our respondents younger than 50 years (90%) is dramatically higher than rates reported for nurses or college students and is somewhat higher than the upper limit of rates reported for medical students and residents. The prevalence of sexual harassment among nursing students is estimated to be 42% to 60%,[38] and estimates among medical students and residents range from 30% to 81%.[10,16,39] In both age strata, work-related sexual assault or attempted sexual assault rates were astonishingly high—approximately 20 times those reported for women in other government jobs.[1] This suggests that women who enter the military may be at much higher risk of sexual assault than other government employees, and future military policies should address these concerns.

The association between age and sexual harassment while in the military disappeared once controlled for by the year of military separation. Our data suggest that women discharged from the military 1 year ago are twice as likely to report having experienced some form of sexual harassment while in the military as women discharged 10 years ago. As with domestic violence, the question that must be asked is, has sexual harassment become more prevalent in recent years? Also as with domestic violence, methodological flaws in the study design could account for our findings. It is possible that our results represent reporting trends or recall bias. However, it is also possible that findings represent true changes in exposure rates. Reporting trends that may have been influenced by an increased awareness of sexual harassment

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were minimized by asking women to report on the occurrence of specific behaviors, not a subjective sense of whether they considered themselves to have been sexually harassed. While recall bias cannot be ruled out, it is difficult to predict whether women would be more or less likely to report certain behaviors with the passage of time. For example, unacceptability bias because of the freshness of an event may lead to underreporting, whereas rumination bias may lead to overreporting with time if one attributes current personal disappointments to past experiences. Women on active duty prior to 1960 were largely segregated from men, reported to female commanding officers, and worked in gender-traditional occupations such as nursing or clerical support. During the Vietnam era, military opportunities in previously male-dominated occupations increasingly opened to women. Women began to report to male superior officers and were housed in the same barracks as men. Entry of women into male-dominated occupations has been cited as a risk factor for sexual harassment,[40] and proximity to men increased the opportunities for sexual harassment. Recent reports from military academies (*Minneapolis Star-Tribune*. February 4, 1994) and ongoing congressional hearings (*Minneapolis Star-Tribune*. March 17, 1994:20A) also suggest that sexual harassment while in the military remains a problem.

This study not only corroborates the findings of others that a history of either current domestic violence or sexual harassment while in the military is associated with anxiety or depression but also extends this understanding by controlling for potentially important confounders, such as age, marital status, education, and comorbidity. Recent domestic violence was associated with a history of more lifetime surgical procedures, suggesting that domestic violence may lead to some increase in health care utilization. Drossman et al[13] have also described an association between surgical procedures and a history of abuse, although they did not specifically assess the association between domestic violence and surgical procedures. We did not find an association between domestic violence and emergency department visits, which has been described by others.[6-8,15] This may be because we studied a substantially different population; because the association does not exist when other important covariates, such as age and comorbidity, are controlled for; or, most likely, because our study lacked adequate power to detect the association.

The limitations of cross-sectional study designs are well described, and some have been considered in detail above. Caution should be used both in ascribing causal associations to our findings and in applying these findings to other populations. However, this study does demonstrate that both domestic violence and sexual harassment while in the military are common experiences for female veterans. Attempted and completed sexual assaults were reported at rates 20 times those reported for other government workers, and our overall prevalence rate of sexual harassment was considerably higher than rates in other populations. There are more than 1.2 million female veterans in the United States and 77 000 women on active duty. Prospective cohort studies are needed to address issues raised in this article and to determine whether veterans suffer disproportionately from either domestic violence or sexual harassment.

Only one fifth of our respondents remembered being screened for domestic violence. To provide appropriate care and referrals for female veterans, especially those who are young, those recently discharged from the military, those who are anxious or depressed, or those who report multiple surgical procedures, physicians may wish to inquire into their experiences with both domestic violence and sexual harassment while in the military.

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