# Unit Support Protects Against Sexual Harassment and Assault among National Guard Soldiers 

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#### Abstract

Objective—Despite concerns about increased sexual harassment and assault following 2013 legislation repealing the ban on women in combat, little research has examined military factors that could prevent sexual harassment and assault during deployment. This study examined whether unit support, which reflects the quality of service members' relationships within their unit, protects against sexual harassment and assault during deployment.

Methods-Participants were 1674 Ohio Army National Guard service members who reported at least one deployment during a telephone survey conducted in 2008-2009. Participants completed measures of sexual harassment/assault, unit support, and psychosocial support. Logistic regression was used to model odds of sexual harassment/assault.

Results—Approximately $13.2 \%(n=198)$ of men and $\mathbf{4 3 . 5 \%}(\mathrm{n}=74)$ of women reported sexual harassment, and $1.1 \%(\mathrm{n}=17)$ of men and $18.8 \%(\mathrm{n}=32)$ of women reported sexual assault during their most recent deployment. Higher unit support was associated with decreased odds of sexual harassment and assault.

Conclusions-A substantial proportion of men and women reported sexual harassment/assault. Higher unit support was associated with diminished odds of sexual harassment/assault during deployment. Programming designed to improve unit cohesion has potential to reduce sexual harassment and assault.


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## Introduction

The Defense Manpower Data Center estimates that more than 26,000 sexual assaults occurred among military personnel in 2012, and this figure represents a $34.5 \%$ increase in assaults since 2010 (Namrow \& Rock, 2013). President Obama has stated that sexual assault in the military is a threat to national security because it reduces the military's effectiveness (Jordan, 2013). The Pentagon's 2013 repeal of the ban on women in combat is expected to encourage gender equality in an otherwise male-dominated culture (Bumiller \& Shanker, 2013), and the Secretary of Defense anticipates that removing these gender barriers will result in reduced incidence of sexual harassment and assault (Trotter, 2013). However, critics contend that increasing the number of women in combat roles may heighten potential for these adverse experiences by placing women in closer proximity to men in circumstances with little privacy (Milrine, 2013). Increased knowledge regarding factors that may contribute to or protect against sexual harassment and assault in military samples is important.

Sexual harassment and assault are common experiences reported by service members. A 2008 DMDC survey of Reserve and Component members indicated that $20 \%$ of women and $3 \%$ of men reported experiencing sexual harassment in the previous year, and $3.5 \%$ of women and $0.9 \%$ of men reported experiencing unwanted sexual contact in the previous year (Rock \& Lipari, 2008). Although sexual harassment and assault can occur at any point during military service, soldiers who deploy may have heightened risk of sexual harassment and assault. For example, in a large sample of female soldiers followed longitudinally, those who had a recent combat deployment had more than twice the odds of sexual harassment or assault compared to those who had not deployed (LeardMann et al., 2013). Furthermore, although men and women are both exposed to mission-related and interpersonal stressors during deployment, women are more likely to report interpersonal stressors, such as sexual harassment, and more negative mental health outcomes as a result of these exposures when compared to men (Vogt, Pless, King, \& King, 2005). The consequences of sexual harassment and assault are broad, ranging from decreased productivity and employment termination to psychopathology and diminished physical well-being (Avina \& O'Donohue, 2002; Gradus, Street, Kelly, \& Stafford, 2008; Street, Stafford, Mahan, \& Hendricks, 2008). In a small sample of female service members, sexual harassment was associated with an increase in PTSD symptoms that was more than twice the standard deviation of the increase in PTSD symptoms associated with combat exposure (Wolfe et al., 1998).

Most research on sexual harassment has focused on individual risk characteristics, including minority race, female gender, enlisted rank, and longer length of deployment (Settles, Buchanan, \& Colar, 2012); however, published studies have rarely reported on military characteristics that may serve as malleable intervention targets. This is a notable oversight given studies showing that characteristics of the unit, including poor leadership climate, lower acceptance of women, and lower combat readiness are positively associated with service members' perceptions of sexual harassment within the unit (Rosen \& Martin, 1998). Further, in a small sample of female service members, there was a trend for sexual harassment to be associated with lower unit cohesion (Wolfe et al., 1998). Thus, the purpose of the current study was to examine in a large sample of male and female service members
whether unit cohesion, a potentially malleable construct (Brailey, Vasterling, Proctor, Constans, \& Friedman, 2007) that reflects the quality of service members' relationships within their unit, is associated with sexual harassment and assault after controlling for demographic characteristics and psychosocial support.

## Materials and Methods

## Participants and Procedures

Primary analyses were conducted on the baseline sample drawn from a longitudinal telephone study of trauma exposure and psychopathology among Ohio Army National Guard (OHARNG) service members. The OHARNG specifically was chosen for its similarity in population density and socioeconomic level to reserve component members in the nation as a whole. All Ohio Army National Guard (OHARNG) service members serving as of June $2008(\mathrm{n}=10,778)$ as well as those who enlisted between July 2008 and February $2009(\mathrm{n}=1792)$ comprised the baseline population $(\mathrm{N}=12,570)$ for this sample. Service members were invited to participate via a letter describing the study with an option to optout followed by a phone call to obtain consent to participate in a telephone interview. Approximately 345 individuals were excluded due to lack of a current address and $8 \%$ ( $\mathrm{n}=1013$ ) returned opt-out cards. We received contact information (name, telephone number and address) for the remaining 11,212 service members; $10 \%(\mathrm{n}=1,130)$ did not have a telephone number listed with the Guard, and nearly $32 \%(\mathrm{n}=3568)$ did not have correct or working telephone numbers. A total of 6,514 working numbers were called; $2.8 \%$ (187) were not eligible (e.g. too young or retired), $20.9 \%(1,364)$ did not wish to participate, $0.4 \%$ (31) were disqualified because they did not speak English or had hearing problems and $35.6 \%$ (2316) were not contacted before the cohort closed. The final baseline sample from the OHARNG consisted of 2,616 male and female service members age 17 or older who were capable of providing informed consent. The overall response rate was $43.2 \%$; calculated as the number of participants who completed a survey and consented but were ineligible divided by the number of working numbers minus those that were disqualified (2616+187/6514-31). Additional details about participant sampling and recruitment are available elsewhere (see Biehn et al., 2012; Calabrese et al., 2011; Goldmann et al., 2012; Goodwin et al., 2012; 2013; Marshall et al., 2012; 2013).

Participants for this analysis were 1,674 male and female service members who reported at least one deployment at baseline because only those who had deployed completed the sexual harassment and assault and unit support items. Comparisons of deployed and non-deployed $(\mathrm{n}=942)$ service members indicated that women were less likely to be deployed, $\chi^{2}=80.0, p$ <.001, but married service members, $\chi^{2}(d f=2)=203.9, \mathrm{p}<.001$, and officers, $\chi^{2}=22.1, \mathrm{p}<$. 001, were more likely to have been deployed. Institutional Review Board approval was obtained from University Hospitals Case Medical Center, University of Toledo, and Columbia University. The Human Research Protection Office (HRPO), Office of Research Protections (ORP), and the U.S. Army Medical Research and Materiel Command (USAMRMC) of the United States Department of Defense also approved the study.

## Measures

Demographic information-Age, race (white versus non-white), and marital status (married versus single/divorced/widowed) were reported by participants.

Military information—Rank (officer versus enlisted), military operation specialty (MOS; combat versus non-combat), location of deployment (Non-US versus US), and duration of most recent deployment was collected.

Sexual harassment and assault—Six items from the Deployment Risk and Resilience Inventory (DRRI; King, King, \& Vogt, 2003; King, King, Vogt, Knight, \& Samper, 2006) were used to assess sexual harassment (e.g., leaders/unit members "made crude and offensive sexual remarks to you") and assault (e.g., leaders/unit members "forced you to have sex") during their most recent deployment. Response options ranged from never (0) to once or twice (1) to many times (4). Any response of one or greater to the three sexual harassment items was coded as "any sexual harassment" while any response of one or greater to three sexual assault items was coded as "any sexual assault." Coefficient alpha for the total scale has been .86 in prior studies (Vogt et al., 2005). In the current sample, coefficient alpha for the sexual harassment and sexual assault items was .54 and .67 , respectively.

Unit support—Seven from the DRRI (King et al., 2003; King et al., 2006) assessed soldier's perceptions of their relationships within their unit. A sample item was "I felt a sense of camaraderie between myself and other soldiers in my unit." Items were answered on 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree), and responses were summed to obtain a continuous total score. Coefficient alpha for the scale was .84 .

Psychosocial support—Six items from the DRRI (King et al., 2003; King et al., 2006) assessed perceived psychosocial support from friends or relatives. A sample item included "Among my friends or relatives, there is someone who makes me feel better when I am down." Items were answered on 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree), and responses were summed to obtain a continuous total score. Internal consistency for the scale was .71 .

## Statistical Analyses

First, we calculated the prevalence of sexual harassment and assault. Second, we examined unadjusted and adjusted odds ratios from logistic regression analyses separately predicting sexual harassment and assault. Adjusted models controlled for covariates that were significantly associated with sexual harassment or assault in unadjusted models (see Table $1)$.

## Results

## Descriptive Statistics

Participants were $34.4(S D=9.0)$ years old on average, $9.4 \%(n=158)$ were ethnic minority, $10.2 \%(n=170)$ were female, $57.3 \%(n=959)$ were married, $15.4 \%(n=258)$ were officers, $35.8 \%(n=600)$ reported a combat MOS, and the average length of deployment was $11.06(S D=6.06)$ months. Approximately $16.2 \%(n=272)$ of service members [13.2\% $(n=198)$ of men and $43.5 \%(n=74)$ of women] reported any sexual harassment during their most recent deployment; $2.9 \%(n=49)$ of service members [1.1\% ( $n$ $=17)$ of men and $18.8 \%(n=32)$ of women] reported sexual assault. Approximately $60 \%$ of men who reported sexual assault also reported sexual harassment, $\chi^{2}=31.2, p<.001$, and $91 \%$ of women who reported sexual assault also reported sexual harassment, $\chi^{2}=34.8, p<$. 001.

## Primary Analyses

Table 1 presents the unadjusted and adjusted odds ratios from logistic regression models predicting deployment-related sexual harassment and assault from demographic and military characteristics. Adjusted models revealed that for men, older age and greater unit and psychosocial support were associated with decreased odds of sexual harassment, while only unit support was associated with decreased odds of sexual assault. Among women, older age and greater unit support was associated with decreased odds of sexual harassment, but only unit support was associated with decreased odds of sexual assault.

## Discussion

The current study is one of the first to examine a potentially malleable military factor that could diminish the odds of experiencing deployment-related sexual harassment and assault. Nearly 1 in 2 women and 1 in 7 men reported sexual harassment during their most recent deployment while nearly 1 in 5 women and $1 \%$ of men reported sexual assault. Greater unit support protected against sexual harassment and assault for both men and women during military deployment, even after controlling for demographic and military characteristics.

We found a higher prevalence of sexual harassment (43.5\%) and assault (18.8\%) among women in the current study compared to other studies that sampled National Guard service members in the same year (2008). For example, the 2008 DMDC report found that $15 \%$ of Army National Guard women reported past-year sexual harassment and $5.4 \%$ reported pastyear sexual assault (Rock \& Lipari, 2009). Differences in sexual assault and harassment prevalence may relate to different assessment timeframes (past-year versus most recent deployment). However, a recent national study found that only $1.4 \%$ of National Guard women reported a rape or sexual assault related to their most recent deployment (Walsh et al., 2014). In contrast to the current study, Walsh and colleagues (2014) used two conservative questions to assess rape and sexual assault (versus a scale that queries about attempted rape, coercion, etc), they did not assess harassment, and they do not report estimates for specific military branches of the National Guard.

## Limitations

Findings should be considered within the context of study limitations. First, self-reports of sexual harassment and assault may be subject to biases in recall, and the use of confidential but not anonymous surveys may have decreased willingness to report. Sexual assault tends to be underreported, and stigma has been identified as an important reason for underreporting in military samples (Hoyt, Rielage, \& Williams, 2011). Therefore, the use of self-report data from confidential but not anonymous surveys may have resulted in underestimates of the prevalence of sexual harassment and assault. Second, the use of a cross-sectional survey limited our ability to determine whether unit support had a temporal influence on sexual harassment and assault during deployment. It is possible that service members who experienced less sexual harassment and assault by members of their unit were more likely to report greater unit support. Future longitudinal studies that assess service members at multiple points during deployment are critical to understanding the temporality of these associations. Third, although significant associations were observed between unit support and sexual assault during the most recent deployment, the numbers of soldiers reporting sexual assault during their most recent deployment were relatively small. Fourth, although the current study had modest response rates that are consistent with other epidemiologic samples (Galea \& Tracy, 2007) and greater than the $25 \%$ response rate reported by the DMDC (Namrow \& Rock, 2013), efforts should be made to improve participation in future studies. Fifth, although the OHARNG tends to be similar to other reserve components in terms of socioeconomics, findings may not generalize to active duty military or to National Guard and Reserve personnel from other states; future research should corroborate these findings. Sixth, we are inferring potential clinical utility from observational findings; however, if findings are replicated, interventions focused on increasing unit support and morale could be developed and tested.

## Implications for Practice and Policy

Although our findings do not suggest causality, we found indications that higher unit support was associated with decreased odds of deployment-related sexual harassment and assault. This finding underscores the importance of developing more effective prevention programs and policies that could, potentially, mitigate the odds of sexual harassment and assault. The Army's Morale, Welfare, and Recreation regulations (Headquarters of the Army, 2010), which include social, fitness, recreational, and educational activities designed to enhance community life, foster unit readiness, promote mental and physical fitness, and provide a positive working and living environment, is an example of a policy intended to improve unit cohesion. However, units may vary in their adoption of these programs. Although we are unaware of formal, published evaluations of the impact of policies designed to improve unit cohesion, there may be some utility in identifying units with lower levels of cohesion and delivering brief interventions designed to enhance social relationships to potentially reduce sexual harassment and assault during deployment.

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## Table 1 <br> Unadjusted and Adjusted Odds Ratios for Predictors of Sexual Harassment

Note: Adjusted models controlled for covariates that were significantly associated with sexual harassment/assault in unadjusted models therefore blank cells reflect non-significant associations in unadjusted models. Sexual harassment and assault do not represent mutually exclusive groups. Telephone survey data were collected in 2008-2009.


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    Conflict of Interest Statement
    The authors have no conflicts of interest to declare.
    Associations between Unit Support and Deployment-Related Sexual Harassment and Assault among National Guard Service Members

