
Understanding and Addressing Sexual Harassment and Sexual Assault in the US Military

21

Cynthia J. Thomsen, Valerie A. Stander,
Rachel E. Foster, and Jessica A. Gallus

The past three decades have seen increasing awareness and scrutiny of the problems of sexual assault and sexual harassment (collectively referred to here as “sexual violence” or “sexual

aggression”) within the US military. The Tailhook incident in 1991—in which 90 service members alleged sexual assault or harassment by officers during a convention (Newsweek Staff, 1992)—first attracted large-scale attention to the issue of sexual violence in the US military. Since that time, public concern about this issue has been kept alive by an ongoing series of high-profile incidents involving sexual aggression by service members, including scandals at the Aberdeen Proving Grounds in 1996 (Spinner, 1997), the Air Force Academy in 2003 (Thomas, 2003), and Lackland Air Force Base in 2012 (Dao, 2012), as well as repeated scandals involving service members stationed at military installations in Okinawa (Allen & Sumida, 2010; Wright, 2009). In addition to revealing systemic problems with the occurrence of sexual violence across all military branches, these events and others like them have highlighted deficiencies in how sexual assault cases have been handled within the military, including allegations that crimes were being covered up, offenders were not being appropriately prosecuted, and victims were being punished for coming forward (Parker, 2011). The documentary *The Invisible War* (Ziering, Barklow, & Dick, 2012) brought further attention to problems in how the military addresses sexual assault.

The primary purpose of the present chapter is to provide an overview of what is

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C.J. Thomsen (✉) • V.A. Stander
Health and Behavioral Sciences Department, Naval
Health Research Center, San Diego, CA, USA
e-mail: cynthia.j.thomsen.civ@mail.mil

R.E. Foster
Office of the Secretary of Defense, Family Advocacy
Program, United States Air Force,
Alexandria, VA, USA

J.A. Gallus
U.S. Army Sexual Harassment/Assault Response and
Prevention, Arlington, VA, USA

known about sexual assault and sexual harassment in the US military. We first define sexual assault and sexual harassment and provide evidence about rates of both types of sexual violence in the military. Next, we summarize research on risk factors for sexual violence and describe evidence regarding its effects on victims. In the following section, we briefly overview current Department of Defense (DoD) prevention and response efforts. Finally, we conclude with suggestions for future research and practice to address the problems of sexual assault and sexual harassment in the military.

Definitions and Prevalence

Definitions

Before discussing the prevalence of sexual harassment and assault within the military, it is important to understand how these terms are defined. In the DoD, “sexual assault” is an umbrella term encompassing a range of specific criminal offenses involving unwanted sexual contact, with or without penetration, as described in the Uniform Code of Military Justice (UCMJ). Specifically, the DoD defines sexual assault as:

...intentional sexual contact, characterized by use of force, threats, intimidation, abuse of authority, or when the victim does not or cannot consent. Sexual assault includes rape, forcible sodomy (oral or anal sex), and other unwanted sexual contact that is aggravated, abusive, or wrongful (to include unwanted and inappropriate sexual contact), or attempts to commit these offenses. (Department of Defense, 2013, p. 93)

Sexual harassment is defined as unwelcome sexual advances, requests, or other sexualized behavior pervasive enough to create a hostile working environment or involving the threat/promise of employment-related punishments/rewards (i.e., *quid pro quo*; Department of Defense, 1995).

Prevalence

The best available source of data for estimating the prevalence of sexual violence in the military is a large-scale, confidential survey assessing sexual victimization experiences, commissioned by the DoD, that has been periodically administered to representative samples of female active duty service members since 1988 and to male service members since 2006. (Similar surveys are regularly administered to Reserve Component members as well as to students at military service academies.) These surveys, entitled the Workplace and Gender Relations Survey of Active Duty Members (WGRA), are currently administered every 2 years by the DoD’s Research, Surveys, and Statistics Center (RSSC). In an exception to this pattern, the RAND Corporation was asked to design and conduct the 2014 survey due to congressional concerns about DoD objectivity. The most recent 2016 WGRA adopted new measures developed for the 2014 RAND Military Workplace Violence survey to more closely align with legal definitions of sexual assault and sexual harassment. Because different measures were used to assess sexual assault and sexual harassment prior to 2014, 2016 findings are not directly comparable to findings of WGRAs conducted prior to 2014 (Davis, Grifka, Williams, & Coffey, 2017).

Results of the 2016 WGRA (like those of previous WGRAs) support two conclusions consistently found in research on civilian samples: sexual harassment is substantially more common than sexual assault, and women are much more likely than men to experience both types of victimization. Specifically, in the past year, more than 1 in 5 women reported sexual harassment experiences, and about 1 in 23 women reported sexual assault experiences (21.4% vs. 4.3%). Among men, approximately 1 in 17 reported sexual harassment and 1 in 167 reported sexual assault (5.7% vs. 0.6%; Davis et al., 2017). In interpreting these estimates, it is important to bear in mind that they include the full range of sexual assault and sexual harassment experiences; that

is, sexual assault encompasses nonpenetrative as well penetrative unwanted sexual contact, and sexual harassment includes reports of sexually hostile work environments as well as more serious quid pro quo forms of harassment. A positive finding, based on repeated administrations of the WGRA, is that rates of sexual assault and harassment have generally declined over time (Davis et al., 2017; Morral, Gore, & Schell, 2016). For example, the annual incidence of sexual assault declined for both female and male service members between 2006 and 2016, and the decline between 2014 and 2016 was statistically significant for both groups (Davis et al., 2017).

A minority of sexual assault victims make official reports. There are many reasons why victims may decide not to report a sexual assault incident, including fears that they may not be believed, the stigma of being labeled a “victim” in a warrior culture, and concerns about possible reprisals or adverse effects on their careers (Childress, 2013; Mengeling, Booth, Torner, & Sadler, 2014). Over time, however, the number of victims making official sexual assault reports has increased, more than doubling between 2007 and 2016 (from 2846 to 6172, although note that some of these reports were for incidents that occurred more than 1 year in the past; Davis et al., 2017). The fact that the number of official reports has increased while the estimated number of victims (based on survey responses) has declined indicates that military victims of sexual assault are more likely to make an official report now than they were in the past; indeed, the DoD estimates that the percentage of victims making an official report has increased from 11% in 2012 to 32% in 2016 (Department of Defense Sexual Assault Prevention and Response Office [DoD], 2017). Increases in official reporting may be a result of heightened attention to and education about sexual assault within the DoD. Another contributing factor may be changes over time in military policies related to sexual assault. One change in particular that is likely to influence reporting of sexual assault is the introduction of a new restricted reporting option in 2005. Before that time, reporting a sexual assault would automatically initiate an investigation, and members of the victim’s command would be

informed on a need-to-know basis. The new policy provided another alternative: victims of sexual assault can file a restricted report. Restricted reports, which can only be given to certain individuals (healthcare providers, SAPR Sexual Assault Response Coordinators, and SAPR Victim Advocates), allow victims to access healthcare and other support services without requiring that their command be informed or that a criminal investigation be conducted.

Interestingly, despite the fact that survey results reveal sexual harassment to be much more common than sexual assault, harassment is less likely to be reported. Limiting reports to those for events that occurred within the past year, sexual assault is eight times more likely to be reported than sexual harassment (4794 vs. 601 in 2016; Davis et al., 2017, Appendix H; DoD, 2017). Given that protocols for sexual harassment (but not sexual assault) dictate resolution at the lowest possible level, it could be that many sexual harassment cases are resolved without the need for escalation to an official report. This is consistent with the survey-based finding that women and men are more likely to have discussed a sexual harassment complaint with someone in their chain of command (50% of women and 37% of men) than they are to have made an official report of sexual assault (31% of women and 15% of men; Davis et al., 2017). Victims also may be less likely to report sexual harassment because they perceive it as less serious than sexual assault, more difficult to prosecute, or as an experience that does not require leader or organization-level intervention.

Military-Civilian Comparisons

It has often been suggested that rates of sexual violence are higher in the military than in the civilian population (e.g., Allard, Nunnink, Gregory, Klest, & Platt, 2011; Bostock & Daley, 2007; Turchik & Wilson, 2010). However, it is difficult to make such comparisons in the absence of studies employing the same measures and methods with both populations, which are rare. An exception is the 2010 National Intimate Partner and Sexual Violence Survey (NISVS;

Black & Merrick, 2013), which compared rates of sexual assault experienced by three groups: active-duty women, wives of active-duty men, and women in the general population. Rates of sexual assault victimization did not differ significantly across these groups. Although we are unaware of any similar studies comparing rates of sexual assault victimization among military and civilian men, the DoD will study victimization among servicemen as well as servicewomen in an upcoming administration of the NISVS.

For sexual harassment, the best available comparison (although somewhat dated) is between military personnel and civilian government employees who completed the same measures of sexual harassment. Estimates based on these data reveal that total *annual* prevalence rates of sexual harassment among active duty men and women are substantially higher than *2-year* prevalence rates among civilian federal employees (Antecol & Cobb-Clark, 2001; Lancaster, 1999; Settles, Buchanan, & Colar, 2012). A meta-analysis comparing rates of sexual harassment of women across academic, private sector, government, and military samples also showed that rates of sexual harassment were highest in military samples (Ilies, Hauserman, Schwochau, & Stibal, 2003). In sum, the best available evidence, while scant, suggests that sexual harassment is more common in military than civilian settings, whereas rates of sexual assault are similar across both settings. In 2016, the DoD created and fielded a civilian version of the WGRA for the first time, which will yield more current information about differences in rates of sexual harassment and sexual assault between military and civilian federal employees.

Gender Differences in Sexual Harassment and Assault Experiences

As discussed previously, both sexual harassment and sexual assault are broad terms covering a wide range of experiences. Thus, even if rates of sexual victimization were the same for military and civilian personnel, or for servicemen and servicewomen, the nature of their sexual victimiza-

tion experiences could be very different. In fact, evidence from the 2014 RAND survey (Morrall et al., 2016) and the DoD's WGRAs (e.g., Davis et al., 2017) about service members' self-identified worst sexual assault experience suggests that the experiences of military men and women differ substantially. Among those reporting sexual assault experiences in the 2016 WGRA (Davis et al., 2017), women, compared to men, were more likely to describe experiences involving penetration (48% vs. 35%), when they had been drinking alcohol (48% vs. 30%) and the perpetrator had been drinking alcohol (49% vs. 26%). Compared to men, women also were more likely to report that their assailant was a friend or acquaintance (58% vs. 43%) and a man or a mixed-gender group (98% vs. 69%). Conversely, servicemen were more likely than servicewomen to have been assaulted at work during duty hours (45% vs. 27%) and less likely to have been assaulted at their own or someone else's home or quarters (25% vs. 45%). Finally, evidence suggests that sexual assault victimization experiences occurred in different contexts or were interpreted differently by men and women; specifically, men were more likely than women to consider their most distressing sexual assault event to be hazing or bullying (44% vs. 25%). These substantial differences in the sexual assault experiences of servicemen and women, and the pervasive myths surrounding male experiences of sexual assault (i.e., that men cannot be raped, that male-on-male rape is a reflection of sexual orientation; Turchik & Edwards, 2012), may help to explain the greater reluctance of servicemen to make official reports of sexual assaults occurring during military service (17% of men vs. 43% of women; Davis et al., 2017, Appendix B).

Risk Factors for Sexual Violence

Surprisingly little research has attempted to characterize risk and protective factors for sexual violence in military contexts. The research that does exist has primarily examined risk factors identified in civilian research rather than exploring military-specific factors that may increase or

decrease the likelihood of sexual violence. In addition, studies have most often focused on risk factors for victimization rather than perpetration and on the normative case involving a female victim and a male perpetrator. Finally, although research on the predictors of sexual harassment in the military often has considered institutional and environmental risk factors, research on sexual assault has primarily focused on individual difference factors. Below, we briefly review existing evidence regarding risk factors for sexual violence in the military, including both environmental characteristics and individual differences.

Environmental Risk Factors

The influential model of sexual harassment developed by Fitzgerald and colleagues (1994) identifies two primary contextual factors affecting the likelihood of sexual harassment within an organization. The first, “organizational climate,” refers to perceptions of the extent to which the organization tolerates sexual harassment; the second, “job gender context,” describes the gendered nature of the work group as manifested by its gender composition, as well as the gender with which the work is traditionally associated. Thus, the model suggests that sexual harassment of women is more likely to occur when it is tolerated by the organization, when women work in predominantly male groups, and when they perform work that is stereotypically masculine. The latter two conditions generally characterize military workplaces, although there are differences across services and occupational specialties.

In support of this model, Fitzgerald, Drasgow, and Magley (1999) showed that organizational climate and job gender context predicted the likelihood of sexual harassment for both servicemen and women (cf. Harris, McDonald, & Sparks, 2017). Subsequent research has replicated this finding and extended it to show effects of organizational climate and job gender context on likelihood of sexual assault (Harned, Ormerod, Palmieri, Collinsworth, & Reed, 2002; Sadler, Booth, Cook, & Doebbeling, 2003). Moreover,

Sadler and colleagues (2017) recently provided evidence that even negative leader behaviors not directly related to sexual aggression (e.g., showing favoritism, embarrassing service members in front of other service members, being more concerned with mission accomplishment than with ethical behavior) were associated with an increased likelihood of sexual assault.

Individual Risk Factors for Perpetration

Almost no military research has studied potential perpetrators to determine risk factors for perpetrating sexual aggression; as a result, much of our knowledge on this subject comes from reports of military victims or is extrapolated from civilian studies of risk factors for sexual violence perpetration. Risk factors for perpetration based on victim reports (e.g., in the WGRA; Davis et al., 2017) are generally limited to demographic and military characteristics (e.g., gender, rank). Civilian studies of risk factors based on the responses of perpetrators reveal a broader range of predictive factors, including adverse childhood experiences (e.g., physical or sexual abuse), attitudinal variables (e.g., hostility toward women, rape myth acceptance), personality traits (e.g., hypermasculinity, psychopathy), and high-risk behavioral patterns (e.g., delinquent or aggressive behavior, high numbers of sexual partners, heavy alcohol use; Abbey, Jacques-Tiura, & LeBreton, 2011; Abbey, Wegner, Pierce, & Jacques-Tiura, 2012; Greene & Davis, 2011; Groth, 1979; Murnen, Wright, & Kaluzny, 2002; Parkhill & Abbey, 2008; Tharp et al., 2013; White & Smith, 2004).

The first large-scale study to assess self-reported perpetration of sexual assault by service members was the Navy Survey of Recruits' Behavior (SRB; Merrill, Thomsen, Gold, & Milner, 2001; Stander, Merrill, Thomsen, Crouch, & Milner, 2008). In this study, incoming Navy recruits (5969 males and 5226 females) were surveyed during basic training between 1996 and 1997. The survey assessed a wide range of attitudinal, experiential, and behavioral factors, includ-

ing sexual assault (victimization for females, perpetration for males). Approximately half of the sample was invited to participate in a longitudinal effort, with follow-up surveys at 6, 12, and 24 months after baseline. Analyses of these data showed that men who entered the military with a history of premilitary sexual assault perpetration, compared to men without such a history, were dramatically more likely to commit sexual assault while in the military (McWhorter, Stander, Merrill, Thomsen, & Milner, 2009), replicating a finding that previously had been demonstrated in civilian contexts (Abbey & McAuslan, 2004; Gidycz, Warkentin, & Orchowski, 2007; Lisak & Miller, 2002; Loh, Gidycz, Lobo, & Luthra, 2005; White & Smith, 2004; but see Swartout et al., 2015). Most recently, Stander et al. (in press) used data from the SRB to test a model of risk factors for perpetration of sexual assault and sexual harassment during the second year of military service. After statistically controlling for men's prior history of sexual assault and sexual harassment, several factors predicted future perpetration; these included delinquency and misconduct, hostility toward women, a large number of sexual partners, and heavy drinking. Interestingly, these factors were equally predictive of perpetrating sexual assault and sexual harassment. Finally, perpetration of sexual harassment in the second year of service also predicted second-year sexual assault perpetration and partially mediated the effects of all other risk factors on the risk of sexual assault perpetration.

More recently, drawing on data from the Army STARRS study, Rosellini et al. (2017) analyzed the survey responses of 21,832 soldiers entering the Army between 2011 and 2012 to predict administratively recorded sexual violence perpetration (among other negative outcomes). Although this report did not focus exclusively on sexual assault, it did identify several risk factors for sexual violence perpetration. These included childhood physical abuse, childhood behavioral disorders, family history of mental illness, insecure attachment style, high religiosity, anxiety disorders, physical assault victimization, higher number of sexual partners, and history of self-harm. It is noteworthy that both the Navy SRB

and the Army STARRS studies focused on individual difference factors rather than contextual factors associated with increased risk of sexual violence perpetration and that neither considered military-specific risk factors (vs. risk factors identified in the civilian literature).

Individual Risk Factors for Victimization

To date, research on risk factors for sexual victimization has focused primarily on female victims. As previously discussed, female service members are more likely than their male counterparts to experience sexual assault and harassment. It is noteworthy, however, that because the military population is predominantly male, there are numerically more male than female military victims of sexual violence (Morrall et al., 2016). As in the civilian world (Humphrey & White, 2000), youth is a risk factor for sexual assault victimization in the military (Surís & Lind, 2008). Further, within the military, age is somewhat confounded with institutional power in the form of rank. Not surprisingly, personnel in the junior enlisted ranks are most likely to experience both sexual harassment and sexual assault in the military (Morrall et al., 2016; Sadler et al., 2003).

Another risk factor that has been well established among both servicewomen (Merrill et al., 1999; Sadler et al., 2003; Stander, Rabenhorst, Thomsen, Milner, & Merrill, 2006; Wilson, Kimbrel, Meyer, Young, & Morissette, 2015) and civilian women (e.g., Gidycz, Hanson, & Layman, 1995) is a prior history of victimization (e.g., childhood abuse, prior adult sexual assault). Relatedly, having been sexually harassed in the military is also a risk factor for being sexually assaulted in the military (Firestone, Miller, & Harris, 2012; Sadler et al., 2003). Indeed, it is uncommon to find a victim of sexual assault who was not previously sexually harassed (Firestone et al., 2012). Likewise, the perpetrator who sexually assaults a servicewoman typically sexually harassed her first (Sadler et al., 2003). Importantly, the link between sexual harassment and sexual

assault victimization has been documented for servicemen as well as women, and it appears to be even stronger for servicemen. In the 2016 WGRA, women who had been sexually harassed in the past year, compared to those who had not, were 16 times more likely to have been sexually assaulted as well; among men, those who had been sexually harassed were 50 times more likely to have been sexually assaulted (DoD, 2017; cf. Morral et al., 2016).

In female civilian samples, research has identified a number of other individual differences that may be associated with increased risk of sexual assault; these include behavioral factors, such as high numbers of sexual partners and risky patterns of alcohol use (MacGreene & Navarro, 1998; Parks, Hsieh, Bradizza, & Romosz, 2008; Testa, VanZile-Tamsen, & Livingston, 2007; but see Gidycz et al., 1995), poor recognition of risk in potentially dangerous sexual situations (Wilson, Calhoun, & Bernat, 1999), low sexual refusal assertiveness (Livingston, Testa, & VanZile-Tamsen, 2007), and low assertiveness with men (MacGreene & Navarro, 1998). Unfortunately, little research has examined whether these (or other) factors increase the risk of sexual assault victimization among service-women or among men (whether civilian or military).

In the military, the likelihood of sexual victimization varies by branch of service; these between-service differences may be the result of both individual and environmental factors that differentiate the services. That is, different types of individuals may be attracted to, recruited by, or retained by each service, and the services may also differ in culture, norms, and organizational structure. In the 2016 WGRA (Davis et al., 2017), as in previous iterations of the survey, men and women in the Air Force reported the lowest rates of sexual assault and sexual harassment. Among women, rates of sexual assault and sexual harassment were highest in the Marine Corps and Navy; for men, rates were highest in the Navy. In part, these differences might be attributable to cross-service differences in job gender context. First, the proportion of female service members is lowest in the Marine Corps and highest in the Air

Force. In addition, it might be argued that the Marine Corps is the most stereotypically masculine branch of service. At the same time, other differences in the demographic profiles of the services could also explain between-service variation in estimated rates of sexual violence. For example, given that youth is a risk factor for both victimization and perpetration of sexual violence, the greater youth of the Marine Corps, compared to the other services, may also help to explain between-service differences in rates of sexual violence.

Effects of Sexual Harassment and Sexual Assault

Research on civilian populations has documented adverse effects of sexual trauma on the mental and physical health of (primarily female) victims, and they are considerable. In the general population, rape has the highest victim cost of any non-fatal crime (Miller, Cohen, & Wiersema, 1996). McCollister, French, and Fang (2010) concluded that the average cost of a sexual assault to society is \$240,776 (cf. Post, Mezey, Maxwell, & Wibert, 2002; for a review of research on the cost of different types of victimization, see Wickramasekera, Wright, Elsey, Murray, & Tubeuf, 2015). It is likely that sexual assault and sexual harassment also pose significant financial costs to the military. These costs include those associated with providing support and treatment to victims and prosecuting alleged offenders, as well as lost duty time or the complete loss of highly trained and well-qualified personnel to attrition. At a broader level, sexual violence also may result in reduced morale, unit cohesion, and operational readiness.

Evidence for many of these outcomes in military populations remains largely anecdotal. However, there is substantial evidence that both sexual assault and sexual harassment in the military are linked to adverse mental and physical health outcomes. Posttraumatic stress disorder (PTSD) has been the most commonly studied outcome of sexual trauma in both civilian and military samples. Among civilians, sexual assault is more likely than any other type of trauma to

result in PTSD (Breslau, Davis, Andreski, & Peterson, 1991; Creamer, Burgess, & McFarlane, 2001; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Schnurr, Friedman, & Bernardy, 2002). Furthermore, sexual trauma may have even stronger adverse effects when it occurs in the military context. Several studies have shown that PTSD is more likely to result from sexual trauma that occurred during military service than in civilian life (Himmelfarb, Yaeger, & Mintz, 2006; Surís, Lind, Kashner, & Borman, 2007; Surís, Lind, Kashner, Borman, & Petty, 2004). In addition, compared with other operational stressors, including combat exposure, sexual trauma has a greater impact on PTSD symptoms (Bell, Roth, & Weed, 1998; Fontana & Rosenheck, 1998; Wolfe et al., 1998; Yaeger, Himmelfarb, Cammack, & Mintz, 2006). Many possibilities have been advanced to explain why sexual violence in the military may be particularly traumatic. For example, service members, compared to civilians, may feel a greater sense of betrayal after an assault by a fellow service member because of the military's emphasis on teamwork, cohesion, and trust. Also, military victims may be more likely than civilian victims to work with the perpetrator, and they may be forced to continue working together after the assault. Further, if the perpetrator was above the victim in the chain of command, he or she is likely to have greater power over the victim than would be the case for a civilian supervisor. Unfortunately, empirical research has not evaluated the relative importance of these potential military-specific vulnerability factors. It should also be noted that many military victims of sexual violence experience multiple incidents of sexual harassment and/or sexual assault (Davis et al., 2017). It is likely that service members with multiple sexual victimizations will exhibit more severe cumulative effects and that operational stressors such as combat exposure may further compound the impact of sexual victimization on service members (Smith et al., 2008; Street, Gradus, Giasson, Vogt, & Resick, 2013).

Beyond PTSD, sexual victimization in the military is associated with a wide range of other serious adverse effects. These include increases

in risk for other mental and behavioral health problems (e.g., depression, substance abuse, eating disorders), as well as physical health problems (e.g., chronic health problems, chronic pain, obesity) and other life difficulties (e.g., relationship problems; Harned et al., 2002; Kimerling, Gima, Smith, Street, & Frayne, 2007; Luterek, Bittinger, & Simpson, 2011; Magley, Waldo, Drasgow, & Fitzgerald, 1999; Millegan et al., 2015; Millegan, Wang, Leardmann, Miletich, & Street, 2016; O'Brien & Sher, 2013; Street, Stafford, Mahan, & Hendricks, 2008; Surís et al., 2004; for a review, see Surís & Lind, 2008). Although fewer studies have examined the effects of sexual victimization on male service members or compared the impact of sexual victimization on servicemen and women, evidence to date suggests that the consequences of military sexual trauma are as bad or even worse for military men than for military women (Bell, Turchik, & Karpenko, 2014; Firestone et al., 2012; Himmelfarb et al., 2006; Kang, Dalager, Mahan, & Ishii, 2005; O'Brien, Gaher, Pope, & Smiley, 2008; Shipherd, Pineles, Gradus, & Resick, 2009; Street, Gradus, Stafford, & Kelly, 2007; Street et al., 2013; Voelkel, Pukay-Martin, Walter, & Chard, 2015; Vogt, Pless, King, & King, 2005). Similarly, some research on the effects of civilian sexual assault has shown greater adverse effects on male than on female victims (Elliott, Mok, & Briere, 2004; Kimerling, Rellini, Kelly, Judson, & Learman, 2002).

In addition to its effects on health, sexual victimization likely undermines the readiness of service members. First, sexual harassment reduces work satisfaction among both male and female service members (Fitzgerald et al., 1999). Further, among servicewomen, working in an environment where sexual aggression was tolerated was associated with reduced work satisfaction, even for those who did not personally experience victimization (Harned et al., 2002). In turn, low work satisfaction has been associated with lower productivity and organizational commitment (Fitzgerald et al., 1999; Harned et al., 2002), as well as increased absenteeism and reduced worker retention (Somers, 1995). Consistent with these findings, results from the

large-scale, longitudinal Millennium Cohort Study (Millegan et al., 2015, 2016) showed adverse career effects of sexual victimization on servicewomen (greater reported work difficulties due to emotional problems, greater likelihood of demotion; Millegan et al., 2015) and on servicemen (more likely to leave the military; Millegan et al., 2016). In the longer term, servicemen who experienced sexual aggression, compared to those who did not, were more likely to be disabled or unemployed (Millegan et al., 2016). Finally, emerging evidence suggests that service members who were sexually victimized while in the military may be at an increased risk of homelessness following separation from service (Pavao et al., 2013) and that the association between military sexual trauma and veteran homelessness may be significantly stronger for men than for women (Brignone et al., 2016).

Prevention and Response

Over the years since the Tailhook incident (Newsweek Staff, 1992), a series of federal panels, committees, and task forces have been convened to address issues related to sexual violence within the military and service academies, each culminating in recommendations for change to policy and practice. The resulting legal and policy alterations are too numerous to describe here but include mandates for the DoD to develop comprehensive programs and policies addressing sexual assault; new annual reporting requirements regarding rates of sexual assault and progress in prevention and response; changes to UCMJ sexual assault statutes; the creation of additional support systems and advocates for sexual assault victims; and new standards for the level of authority and training required to oversee and adjudicate sexual assault cases. Because of these changes, sexual assault prevention and education initiatives within the DoD have expanded, as have the options available to military victims of sexual assault.

In the civilian world, sexual assault and sexual harassment are typically handled through different administrative mechanisms (e.g., criminal

courts vs. equal opportunity offices), and this practice has been carried over into the military context. In the DoD and most of the services, sexual assault is a crime prosecuted within the military legal system, and programmatic efforts to address the problem of sexual assault are coordinated by SAPR offices. In contrast, sexual harassment falls under the purview of diversity management and equal opportunity programs and is to be reported to equal opportunity offices if it cannot be resolved informally through the chain of command. In a departure from this separation, about 10 years ago the Army combined its sexual harassment and sexual assault programs to create the Army Sexual Harassment/Assault Response and Prevention (SHARP) program.

The relative advantages and disadvantages of a unified approach to sexual harassment and sexual assault have not been systematically explored. From a prevention perspective, at least, it makes good sense that both problems be addressed in parallel. As discussed previously, for both victims and perpetrators, sexual assault seldom occurs without sexual harassment (DoD, 2017; Firestone et al., 2012; Harned et al., 2002; Sadler et al., 2003; Stander, Thomsen, Merrill, & Milner, *in press*), and there is evidence of common risk factors for both types of violence (Harned et al., 2002; Stander et al., *in press*). Although the Army may have most enthusiastically embraced the idea of an integrated approach to preventing both sexual harassment and sexual assault, the DoD and the other services have also incorporated this idea into universal prevention and education efforts via continuum of harm models. These models suggest that tolerating relatively minor sexist or sexual harassment behaviors is likely to increase rates of sexually hostile or aggressive behaviors, including sexual assault. Current trainings attempt to create cultural change by emphasizing the need for all personnel to intervene at the first sign of sexism or sexual aggression in order to ensure the safety of fellow service members and contribute to the creation of a culture in which sexual aggression is unacceptable. These bystander intervention training programs have

been widely implemented throughout the DoD as part of SAPR efforts.

From the perspective of supporting and treating victims, there may also be little advantage to differentiating sexual harassment from sexual assault, given that both have similar effects on victims (Magley et al., 1999; Street et al., 2008; Surís & Lind, 2008). Indeed, the Department of Veterans Affairs (VA) does not distinguish between the two, using the term military sexual trauma (MST) to encompass both types of sexual violence (Kimerling et al., 2007). Medical care for victims of MST is not dictated by the nature of their victimization experiences, but rather tailored to each individual's symptoms and mental or physical health needs. As discussed earlier, PTSD is the mental health condition most common among victims of MST, although a wide range of other psychological health problems also are common (Surís & Lind, 2008). Both the DoD and VA have identified gold standard, evidence-based treatments for PTSD and other common mental health problems. It is unknown whether the therapeutic needs of service members or veterans with PTSD differ depending on whether the index trauma was MST or another type of trauma. Nor do we know whether the same treatments are equally effective for male and female victims of MST, although recent studies have begun to examine these issues (e.g., Tiet, Leyva, Blau, Turchik, & Rosen, 2015; Voelkel et al., 2015).

The challenge of an integrated approach to sexual harassment and sexual assault is greatest when it comes to responding to alleged perpetrators. As discussed previously, the two issues are handled through entirely separate systems in both military and civilian contexts. Anecdotal evidence suggests that many service members worry that linking the two types of sexual aggression will lead to overreactions, as relatively minor forms of sexual harassment may be linked to more extreme forms of sexual assault, and workplace infractions are considered under the same rubric as serious criminal offenses. It clearly would require major revisions to current thinking about the consequences of each type of offense, as well as to organizational structures and poli-

cies, if it were determined that responding to the perpetrators of sexual harassment and sexual assault should occur within a single unified system.

Conclusions and Future Directions

Sexual assault and sexual harassment are clearly significant problems, not only in the Armed Forces but also in society as a whole. These issues are particularly critical in the military, however, because in addition to their well-established and long-term effects on individual health and well-being, they also may erode unit cohesion, degrade military readiness, and ultimately undermine the effective performance of the Armed Forces. Unfortunately, research to date has focused primarily on health outcomes, so empirical evidence regarding the effects of sexual violence on military readiness and performance is limited (but see Fitzgerald et al., 1999; Harned et al., 2002; Millegan et al., 2015, 2016). In addition, because research examining the effects of sexual violence has primarily focused on female victims, knowledge of the effects of sexual violence on male service members is scant. A better understanding of how servicemen are impacted by sexual victimization is particularly important given evidence that more men than women experience sexual assault in the military (Morrall et al., 2016).

Development of effective prevention programs critically depends on comprehensive information regarding risk and protective factors for sexual violence that are both salient and modifiable in the military context. For example, as discussed previously, there is currently a consensus within the DoD (as elsewhere) that a sexist environment creates opportunities for sexual harassment and that sexual harassment in turn is a risk factor for sexual assault. However, more research is needed on the best ways to reduce sexism within military environments in order to inhibit sexual aggression. Similarly, optimal prevention requires empirical evidence on how to best disrupt escalation across the continuum of harm, from sexism to sexual harassment to sexual

assault. Although current military prevention and intervention efforts targeting sexual harassment hold promise for reducing sexual assault as well as harassment, there is little published evidence on this point.

It is noteworthy that very little empirical research has examined risk and protective factors for sexual violence victimization or perpetration in military contexts and that most existing research of this type has examined risk factors identified in the civilian research literature rather than testing military-specific factors. Key military-specific factors may include individual differences (e.g., characteristics common to individuals who elect to serve or remain in the military) as well as characteristics of military life (e.g., frequent changes of geographic location including deployment, leader attitudes or behaviors). In addition, many existing studies have included either individual differences or contextual predictors in their models, but not both; this is an important limitation because it is clear that a complete understanding of the dynamics of sexual aggression and victimization cannot be achieved without considering both types of factors and evaluating their interplay. This is implicitly acknowledged by the DoD SAPR Office's adoption of the social ecological model of risk, which highlights predictive factors at every level, ranging from broad societal influences to specific individual differences (see Department of Defense Sexual Assault Prevention and Response Office, 2016, p. 21). Finally, most of the limited existing literature has focused on risk factors for the normative case in which a female is sexually victimized by a male; an important and under-addressed question is whether the factors that increase the risk of sexual victimization and sexual violence perpetration are the same regardless of victim and perpetrator gender.

Over the past several years, the DoD's primary efforts to prevent sexual assault have consisted of annual trainings educating service members about sexual violence and available SAPR resources, reinforcing military norms contrary to the perpetration of sexual violence, and promoting bystander intervention. Although these efforts clearly have face validity as sexual

assault prevention strategies, and some evidence from the civilian sector supports the utility of prevention efforts based on bystander intervention (e.g., Coker et al., 2017), there is no military-specific research evidence establishing that these prevention efforts target the modifiable risk factors that are most important and impactful in the military context. Likewise, very few empirical evaluations have been conducted to determine whether these interventions significantly reduce risk of sexual harassment or sexual assault, and some of the limited research that has been done remains unpublished and inaccessible to the broader scientific community.

Reviews of the civilian sexual assault prevention literature (Anderson & Whiston, 2005; DeGue et al., 2014; Vladutiu, Martin, & Macy, 2011) suggest that relatively brief annual trainings such as those provided through SAPR are unlikely to have a major impact on rates of sexual assault. To be maximally successful, interventions will likely need to be longer-lasting and more intensive. Successful programs are also likely to require multipronged efforts with a variety of strategies targeting multiple socioecological levels to change environmental/contextual factors (culture, policy) as well as individual factors (attitudes, behaviors). In a highly successful and well-publicized example of such a program, a multifaceted intervention launched at Naval Station Great Lakes in 2011 reportedly reduced sexual assault by more than 60%, at a time when rates in the Navy as a whole were increasing (Shanker, 2013). This program—which includes exposure to a variety of prevention materials and trainings over time as well as a range of environmental interventions (e.g., patrols to identify sailors engaging in risky behavior, changes in regulations to limit alcohol sales on base, outreach to local bars)—has since been implemented at other Navy bases (Hlad, 2013). Unfortunately, rigorous and systematic empirical study of the program has not been conducted, reducing the reach and impact of these results on other sexual assault prevention efforts.

It might be useful to augment current universal interventions aimed at reducing risk among the military population as a whole with other tar-

geted prevention efforts. The most widely considered approaches in this regard involve screening to identify individuals at particularly high risk of sexual assault perpetration or victimization. If valid and reliable screening instruments were available, they could be used either (a) to provide targeted interventions to those at high risk of victimization or perpetration or (b) (in the case of likely perpetrators) to prevent them from entering the military. Recent studies conducted under the auspices of the Army STARRS research program suggest that it may be possible to use survey responses to identify service members at heightened risk of both sexual assault perpetration (Rosellini et al., 2017) and victimization (Street et al., 2016). It is important to note, however, that responses to the STARRS survey were confidential and not part of official military records. Given evidence that service members are dramatically more likely to report sensitive information when responses are confidential or anonymous than when they are not (Olson, Stander, & Merrill, 2004; Warner et al., 2011), it is uncertain whether likely perpetrators or victims could still be identified using nonanonymous data collected for official military purposes.

A second concern about screening, either to implement targeted interventions or to exclude those at high risk of perpetration from service, is the possibility that it might have unintended negative consequences. With respect to providing targeted interventions, if not done with care and discretion, identifying individuals at risk of victimization in order to provide them with targeted prevention programs may re-traumatize victims or reinforce the idea that victims are responsible for their own sexual victimization, when in fact the blame must lie squarely with the perpetrator. Likewise, screening to identify and intervene with potential perpetrators runs the risk of stigmatizing them or even increasing their risk of perpetration through self-fulfilling prophecy or behavioral confirmation effects (Chen & Bargh, 1997; Kassin, Goldstein, & Savitzky, 2003).

Screening incoming service members to exclude those at high risk of sexual violence perpetration from service also requires careful

consideration. More specifically, it is important to broadly consider the potential impact of screening, not only on rates of sexual assault and other antisocial behaviors but also on the prevalence of characteristics that may in some cases be critical to successful mission performance (e.g., aggression, dominance). Further, screening may be ethically problematic if it is based on risk factors that are beyond the individual's control (e.g., a history of childhood abuse). Unless a screening tool shows high levels of both specificity and sensitivity, it could end up disqualifying potentially valuable recruits while failing to significantly reduce the number of personnel at high risk for sexual violence entering the military. These potential hazards suggest the need to carefully evaluate the utility of screening approaches prior to their implementation to ensure that they are maximally accurate and that their use would not result in unanticipated negative consequences. Finally, evidence that leadership plays a key role in setting the tone with respect to whether sexual harassment and sexual assault will be tolerated (Sadler et al., 2003, 2017) raises the interesting possibility that screening leaders to eliminate those at risk of tolerating sexism and sexual aggression might be easier to implement and might have an impact on rates of sexual aggression equal to or greater than that of screening incoming service members.

Ultimately, maximally effective efforts to prevent sexual harassment and sexual assault in the military will need to be multipronged, employing a variety of strategies that target multiple socioecological levels and include both environmental/contextual factors (culture, policy) as well as individual factors (attitudes, behaviors). These efforts will have to be sustained over time through a consistent investment of both attention and resources toward solving the problem of sexual violence within the military. Although there are many ways in which there is still room for improvement, the US military already has established a program to prevent and respond to sexual aggression among its ranks that is arguably more systematic and wide-reaching than that of any other institution of its

size and complexity. In the future, it will be important for the DoD to remain in the vanguard of this fight and to make additional strides in evaluating and documenting programmatic elements that are essential to best practice. Although it is unlikely that sexual harassment and sexual assault will be completely eliminated, in the military or in any other context, these types of intensive efforts hopefully can minimize it and can also inform efforts to address the problem across other sectors of society.

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