



Published in final edited form as:

*J Aggress Maltreat Trauma*. 2020 April 10; 29(6): 714–724. doi:10.1080/10926771.2020.1725213.

## Self- and Other-Directed Violence as Outcomes of Deployment-Based Military Sexual Assault in Iraq/Afghanistan-era Veteran Men and Women

Laura C. Wilson<sup>a,\*</sup>, Amie R. Newins<sup>b</sup>, Sarah M. Wilson<sup>c,e,f</sup>, Eric B. Elbogen<sup>c,f</sup>, Eric A. Dedert<sup>c,d,e,f</sup>, Patrick S. Calhoun<sup>c,d,e,f</sup>, Jean C. Beckham<sup>c,d,e</sup>, VA Mid-Atlantic MIRECC Workgroup<sup>e,†</sup>, Nathan A. Kimbrel<sup>c,d,e,f</sup>

<sup>a</sup>Department of Psychological Science, University of Mary Washington, 1301 College Avenue, Fredericksburg, VA 22401

<sup>b</sup>Department of Psychology, University of Central Florida, 4111 Pictor Lane, Psychology Building 99, Suite 320, Orlando, FL 32816

<sup>c</sup>Durham VA Healthcare System, 508 Fulton Street, Durham, NC 27705

<sup>d</sup>VA Mid-Atlantic Mental Illness Research, Education and Clinical Center (MIRECC), Durham, NC 27705

<sup>e</sup>Center of Innovation to Accelerate Discovery and Practice Transformation (ADAPT), Durham VA Medical Center, 508 Fulton Street, Durham, NC 27705

<sup>f</sup>Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine, Durham, NC 27708

### Abstract

Although military sexual assault (MSA) has been well-established as a risk factor for psychopathology (e.g., PTSD, depression), little research has examined the association between MSA and self- and other-directed violence. Furthermore, there has been a growing empirical focus on potential gender differences in the effects of MSA, but few of these studies have examined gender differences in self- and other-directed violence. In a sample of 1571 Iraq/Afghanistan-era veterans (21.0% women), we examined the effect of MSA on difficulty controlling violent behavior and attempting suicide among veteran men and women, above and beyond the influence of childhood sexual abuse, combat trauma, PTSD, and major depressive disorder. Results of a logistic regression revealed that MSA increased risk of attempting suicide and difficulty controlling violence among women but not men. Thus, the results suggest that MSA may be a risk

\*Correspondence concerning this article should be sent to: Dr. Laura Wilson, 1301 College Ave, Fredericksburg, VA, USA 22401; 540-654-1558; lwilson5@umw.edu.

† The VA Mid-Atlantic MIRECC Workgroup contributors for this paper include: Mira Brancu, PhD, John A. Fairbank, PhD, Robin A. Hurley, MD, Jason D. Kilts, PhD, Angela Kirby, MS, Christine E. Marx, MD, MS, Scott D. McDonald, PhD, Scott D. Moore, MD, PhD, Rajendra A. Morey, MD, MS, Jennifer C. Naylor, PhD, Jared Rowland, PhD, Cindy Swinkels, PhD, Steven T. Szabo, MD, PhD, Katherine H. Taber, PhD., Larry A. Tupler, PhD, Elizabeth E. Van Voorhees, PhD, H. Ryan Wagner, Ph.D., Ruth E. Yoash-Gantz, PsyD. Dr. Van Voorhees is funded by VA Rehabilitation Research and Development Career Development Award #1K2RX001298. The views expressed in this article are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States government.

factor for both types of violence in women. Furthermore, because PTSD was associated with both types of violence in both men and women, MSA may also confer risk of violence *via* PTSD.

## Keywords

military sexual trauma; functional correlates; suicidal ideation; suicide attempt; aggression

Over the past 25 years, there has been increasing concern among clinicians, providers, policy makers, and the general population about the prevalence and consequences of military sexual assault (MSA). Recent research has suggested that the prevalence of MSA, which is defined as unwanted, non-consensual, forced, or coerced touching of sexual body parts or sexual intercourse during military service (Allard et al., 2011), may be even higher than initial data suggested (Wilson, 2018). Specifically, a recent meta-analysis of 43 studies demonstrated that the overall prevalence of MSA was 13.9%, with a rate of 1.9% among men and 23.6% among women (Wilson, 2018). Furthermore, a recent report distributed by the Department of Defense (2019) revealed that the rate of MSA has increased in recent years, particularly among women. Consistent with the extensive trauma literature that has demonstrated deleterious effects of sexual trauma among civilians, a robust evidence base has established a plethora of mental and physical health consequences associated with MSA (see Suris & Lind, 2008, for a review).

Although there is a growing knowledge base examining the mental health consequences of MSA, this line of research has mostly focused on posttraumatic stress disorder (PTSD), anxiety, and depression as the outcomes of interest (e.g., Allard et al., 2001; Goldzweig, Balekian, Rolon, Yano, & Shekelle, 2006; Suris & Lind, 2008; Zinzow, Grubaugh, Monnier, Suffoletta-Maierle, & Frueh, 2007). Although these forms of psychopathology are certainly relevant outcomes to consider given their links to MSA, the trauma literature as a whole has expanded to consider other functional correlates to more sufficiently conceptualize the effects of sexual trauma (e.g., Mechanic, 2004). The objective of the present research was to consider self- and other-directed violence as potential functional correlates of MSA.

## Self-Directed Violence

In comparison to research on PTSD, there has been less focus on self-directed violence, or deliberate behavior that leads to self-injury or the potential for self-injury (Centers for Disease Control and Prevention, 2011). This form of behavior encompasses suicidal behaviors (i.e., intent of behavior is to die) and non-suicidal behaviors (i.e., self-injury without the intent to die). The extant literature has consistently suggested that MSA is a risk factor for self-directed violence by demonstrating that this type of behavior is more than twice as common among veterans who screen positive for MSA than those who do not screen positive for MSA (e.g., Kimerling, Gima, Smith, Street & Frayne, 2007; Kimerling, Makin-Byrd, Louzon, Ignacio, & McCarthy, 2016). Additionally, prior studies have demonstrated that MSA conveys risk above and beyond other established risk factors for self-directed violence among both men and women (e.g., mental health conditions, physical health conditions; Kimerling et al., 2016; Schry et al., 2015).

## Other-Directed Violence

Compared to considerable research on self-directed violence, there has been less research examining the link between MSA and other-directed violence. In one relevant study, researchers linked clinical data to criminal records in a large national cohort sample of UK military personnel (i.e., active duty and veteran; MacManus et al., 2013). Among military personnel who met criteria for PTSD, 7.2% had been arrested for a violent offense as compared to 3% of military personnel who did not meet criteria for PTSD. In another study, which was a nationally representative survey of post-9/11 veterans, researchers found that in a one-year period of time, 19.52% of veterans with PTSD reported violence compared to 6.41% of veterans without PTSD (Elbogen et al., 2014). It is important to note that although several studies have shown that veterans with PTSD tend to have higher rates of violence than those without PTSD, evidence suggests that most veterans with PTSD do not have problems with violence. Despite these relevant studies that have demonstrated an association between PTSD and violence in veterans, the link between MSA and other-directed violence has been understudied in this population.

Although comparatively understudied, a few studies have examined other-directed violence as a potential functional correlate of sexual trauma. For example, among civilian men who were incarcerated for a felony, those who had experienced sexual trauma during their lifetime were more likely to have a history of violent offenses than those without a history of sexual trauma (Clark et al., 2012). However, it should be noted that in a sample of veteran men, Schry and colleagues (2015) did not find a relationship between MSA and difficulty controlling violent behaviors. Worthen (2011) noted that limited research has been dedicated to examining how trauma impacts anger and aggression among veteran women relative to veteran men.

## Gender Differences

Within the trauma field, there is an emerging understanding that in addition to gender differences in the prevalence of MSA, there are also gender differences in the psychological consequences and functional correlates of MSA. Kimerling and colleagues (2007) found that the association between MSA and mental health conditions was stronger among women than men. For example, the association between MSA and PTSD was approximately three times stronger in women compared to men (Kimerling et al., 2007). Relevant to this study, numerous studies have demonstrated that although sexual trauma is a risk factor for negative outcomes among both men and women, the link between MSA and self-directed violence is stronger among men (Kimerling et al., 2007; Monteith et al., 2016). Therefore, another contribution of the present study was to consider gender differences in the associations between MSA and self- and other-directed violence. Because the rates of suicide attempts and completions within the veteran population continue to exceed those observed among civilians (Department of Veterans Affairs, 2018), it is vital that the field work to better understand correlates of self-directed violence and consider potential gender differences.

## Current Study

Consistent with Kimerling et al. (2016), we hypothesized that MSA would be related to self-directed violence, above and beyond the effects of childhood sexual abuse, trauma exposure, PTSD diagnosis, and major depressive disorder diagnosis among both men and women.

Based on Schry and colleagues (2015), another study that examined this relationship among veterans, we hypothesized that MSA would not be related to other-directed violence, above and beyond the effects of childhood sexual abuse, trauma exposure, PTSD symptoms and depression symptoms in veteran men. Given the general lack of research specific to other-directed violence among veteran women, no a priori hypothesis was made about the relationship between MSA and other-directed violence among women, above and beyond the effects of childhood sexual abuse, trauma exposure, PTSD symptoms and depression symptoms.

## Method

### Participants and Procedures

The data for this study come from the VA Mid-Atlantic Post-Deployment Mental Health study (Brancu et al., 2017). Participants were recruited at four VA medical centers that contribute to the VA Mid-Atlantic Mental Illness Research, Education, and Clinical Center (MIRECC) via advertisements posted at the medical centers, mailings to eligible patients, and clinician referrals. Service in the U.S. military post-September 11, 2001 was required for inclusion in the study. All participants provided informed consent prior to beginning the study. Most participants completed the study, including self-report measures and a clinical interview, during a single visit lasting most of the day. Participants received travel reimbursement and \$175 compensation for completing the study. This study was approved by the IRBs of all of the participating sites, including the Durham (North Carolina), McGuire (Richmond, Virginia), Hampton (Virginia), and W.G. (Bill) Hefner (Salisbury, North Carolina) VA Medical Centers. Full details of the Post-Deployment Mental Health Study procedures are available in Brancu et al. (2017).

Only participants who completed the item assessing MSA during deployment were included in the current analyses, resulting in a sample of 1571 participants. Most participants identified their gender as male ( $n = 1241$ , 79.0%), but it should be noted that women were over-sampled in this study. The sample was predominately Black ( $n = 769$ , 48.9%) or White ( $n = 784$ , 49.9%) and identified their ethnicity as non-Hispanic/Latinx ( $n = 1470$ , 93.6%).

### Measures

Participants self-reported demographic information including gender and race. Participants responded to a single dichotomous self-report item asking if they had experienced unwanted sexual contact or sexual penetration during their post-9/11 deployment(s) (Gross et al., 2018). This item was used to classify participants based on their MSA experience. The Beck Scale for Suicide Ideation (BSSI; Beck 1991) was used to identify participants who had attempted suicide in the past. It is important to note that our single item assessment of self-directed violence focused on suicide attempts and did not account for other relevant

components of self-directed violence, such as non-suicidal self-injury. Participants' responses to a single dichotomous self-report item asking if they had experienced "trouble controlling violent behavior (e.g., hitting someone) in the past 30 days" was used to identify participants who had engaged in other-directed violence.

The covariates included in the model were combat exposure, history of childhood sexual abuse, history of PTSD, and history of major depressive disorder. Combat exposure was assessed using the Combat Exposure Scale (CES; Keane et al., 1989), a 7-item measure designed to assess the frequency and severity of combat. Total scores are based on weighted item scores and range from 0 to 40. High internal consistency and test-retest reliability of the CES have been reported previously (Keane et al., 1989). Childhood sexual abuse was assessed using three items from the Traumatic Life Events Questionnaire (TLEQ; Kubany et al., 2000). Acceptable reliability of the TLEQ among Iraq and Afghanistan-era veterans has been documented (e.g., Dedert et al., 2009). Lifetime diagnoses of PTSD and major depressive disorder were based on the results of the Structured Clinical Interview for DSM-IV Axis-I Disorders (SCID-I; First, Spitzer, Gibbon, & Williams, 1994). As noted in Brancu et al. (2017), interrater reliability for SCID-I diagnoses in the current study has been demonstrated to be high.

## Data Analysis

Frequencies were examined to determine the number of participants who screened positive for MSA, reported they had attempted suicide, and reported they had experienced difficulty controlling violent behavior. Logistic regression was used to examine whether MSA increased risk for attempting suicide and/or difficulty controlling violent behavior. MSA was coded as 0 = did not screen positive for MSA, 1 = screened positive for MSA. The analyses were conducted separately for men and women, and childhood sexual abuse, combat trauma, PTSD, and major depressive disorder were included as covariates. These covariates were included because of the high rate of revictimization (Walker, Freud, Ellis, Fraine, & Wilson, 2019) and comorbidity (Breslau, Davis, Andreski, & Peterson, 1991) among trauma survivors.

## Results

Approximately 4.3% ( $n = 67$ ) of the sample screened positive for MSA. Women (12.7%;  $n = 42$ ) were significantly more likely to screen positive for MSA than men (2.0%;  $n = 25$ ;  $\chi^2(1) = 73.273, p < .001$ ). More than one tenth ( $n = 166$ ; 10.6%) of participants reported they had attempted suicide, and more than one in twenty ( $n = 116$ ; 7.4%) participants reported they had experienced difficulty controlling violent behavior in the past 30 days. Among women, MSA was associated with a significant increase in risk for attempting suicide,  $AOR = 3.599, p = .002$ , even after accounting for childhood sexual abuse, combat trauma, PTSD, and major depressive disorder. Among women, MSA was associated with a significant increase in risk for difficulty controlling violent behavior,  $AOR = 5.201, p = .004$ , even after accounting for childhood sexual abuse, combat trauma, PTSD, and major depressive disorder. Conversely, among men, MSA was not associated with level of risk for either difficulty controlling violent behavior,  $AOR = 2.194, p = .122$ , or attempting suicide,  $AOR$

= 1.996,  $p = .166$ , after accounting for childhood sexual abuse, combat trauma, PTSD, and major depressive disorder. See Table 1 for more details about the logistic regression analyses.

## Discussion

The purpose of the current study was to examine whether MSA experienced during deployment was associated with risk of self- and other-directed violence after accounting for other well-established risk factors (i.e., childhood sexual abuse, combat exposure, PTSD, and major depressive disorder) in veteran men and women. Although previous research has suggested that MSA confers risk of self-directed violence in both men and women (Kimerling et al., 2007; Monteith et al., 2016), we found that MSA was only positively associated with higher risk of lifetime suicide attempt among women. MSA was not associated with risk of lifetime suicide attempt among men in the present study.

It is possible our results differed from prior studies because Kimerling and colleagues (2007) and Monteith and colleagues (2016) examined military sexual trauma (MST) more broadly, meaning sexual harassment was included as well as sexual assault while the current study only examined MSA. Both of the prior studies (i.e., Kimerling et al., 2007; Monteith et al., 2016) also included incidents that occurred anytime during military service, while the current study only examined incidents that occurred during deployment. Furthermore, Monteith et al. used VA medical record data to determine the presence of PTSD and depression, and Kimerling et al. did not include any covariates in their analyses. Finally, given that only 25 men screened positive for MSA in our study, it is possible that our analyses were underpowered.

Importantly, lifetime diagnosis of PTSD was associated with increased risk of suicide attempts among both men and women, which is consistent with previous research demonstrating a relationship between PTSD symptoms and self-directed violence (Kimbrel et al., 2014). Furthermore, childhood sexual abuse and major depressive disorder were also associated with increased likelihood of suicide attempt history among men. These results may suggest that MSA primarily exerts an effect on suicide risk via psychopathology for men, but there is a unique effect of MSA on self- and other-directed violence that is not better accounted for by psychopathology among women. It is also noteworthy that more than one tenth of participants in the analyzed sample reported they had attempted suicide. This high base rate of suicidal behavior in our sample allowed us to conduct analyses that are often underpowered in other studies.

MSA was only associated with increased likelihood of other-directed violence among women. The finding of no relationship between MSA and other-directed violence among men is consistent with previous research (Schry et al., 2015). But, again, given that only 25 men screened positive for MSA in our study, it is possible that our analyses were underpowered. Also consistent with previous research demonstrating PTSD is associated with increased anger and aggression (Worthen, 2011), both men and women with a lifetime diagnosis of PTSD were more likely to report difficulty controlling violent behavior in the past 30 days. Although there is not a gender gap for violence rates between veteran men and



women, there is some research showing that women report perpetrating higher rates of family violence than men (Dutra, de Blank, Scheiderer, & Taft, 2012; Sullivan & Elbogen, 2014). Combat trauma and major depressive disorder were also both positively associated with increased likelihood of other-directed violence among men.

These results have important clinical implications for providers who work with veterans. Specifically, these results underscore the importance of assessing and addressing self- and other-directed violence among veterans, particularly those presenting with PTSD. Furthermore, although the type of trauma varied, trauma exposure was associated with self- and other-directed violence for both men and women, even when accounting for diagnoses of PTSD and major depressive disorder. For men, childhood sexual abuse was associated with increased likelihood of self-directed violence, and combat trauma was associated with increased likelihood of other-directed violence. For women, MSA was associated with both likelihood of self- and other-directed violence. Therefore, trauma history appears to potentially be an important risk factor for violent behaviors among veterans. Future research should examine whether treatments targeting psychopathology (e.g., treatments for PTSD and depression) are sufficient to address violence risk or if adjunctive treatment is needed.

These findings should be interpreted in light of several limitations. Specifically, assessment of MSA was limited to during deployment and only included sexual assault, which likely accounts for the lower rates of MSA among women in this study compared to other studies. As a result, some of the participants in the group identified as not having experienced MSA may have experienced MSA while not deployed or may have experienced sexual harassment. Another limitation is the cross-sectional nature of the study. This is particularly problematic for the self-directed violence item, which asked about lifetime suicide attempts, whereas the other-directed violence inquired about the past 30 days. Also, the assessments used to measure self- and other-directed violence were based on single items that defined violence in a narrow manner. For example, the assessment of self-directed violence focused on attempted suicide and failed to assess for non-suicidal self-injury. Finally, moderation analyses would have allowed us to more directly assess gender differences; however, we did not have adequate statistical power to conduct those analyses. Therefore, the findings presented here are preliminary results that should be further examined in future research that addresses these limitations.

Despite these limitations, this study makes a significant contribution to the existing literature by examining the relationship between MSA and self- and other-directed violence in a large sample of both veteran men and women, and after accounting for relevant covariates. In general, the findings indicate that MSA appears to serve as a risk factor for both types of violence, but only for women; however, the finding that PTSD was also associated with both types of violence for both men and women suggests that MSA may also confer risk of violence via PTSD.

## Acknowledgements

This work was supported, in part, by a Merit Award (#I01 CX001486) to Dr. Kimbrel from the Clinical Science Research and Development Service (CSR&D) of the Department of Veterans Affairs (VA) Office of Research and Development (ORD), a Research Career Scientist Award (#11S-RCS-009) to Dr. Beckham from CSR&D, and a

Career Development Award (#IK2 HX002398) to Dr. Sarah Wilson from VA Health Services and Research Development (HSR&D), and Merit Review Award Number (#I01 CX001757) to Dr. Dedert in part by Merit Review Award number I01 CX001757-01 from the United States (U.S.) Department of Veterans Affairs Clinical Sciences R&D (CSR&D) Service. This work was also supported by the VA Mid-Atlantic Mental Illness Research, Education and Clinical Center (MIRECC) and the Durham Veterans Affairs Medical Center.

## References

- Allard CB, Nunnink S, Gregory AM, Klest B, & Platt M. (2011). Military sexual trauma research: A proposed agenda. *Journal of Trauma & Dissociation*, 12, 324–345. doi: 10.1080/15299732.2011.542609 [PubMed: 21534099]
- Beck AT (1991). *Beck Scale for Suicide Ideation: Manual*. New York, NY: The Psychological Corporation.
- Brancu M, Wagner HR, Morey RA, Beckham JC, Calhoun PS, Tupler LA, ... Fairbank JA (2017). The Post-Deployment Mental Health (PDMH) study and repository: A multi-site study of US Afghanistan and Iraq era veterans. *International Journal of Methods in Psychiatric Research*, 26, e1570. doi: 10.1002/mpr.1570
- Breslau N, Davis GC, Andreski P, & Peterson E. (1991). Traumatic events and posttraumatic stress disorder in an urban population of young adults. *Archives of General Psychiatry*, 48, 216–222. doi: 10.1001/archpsyc.1991.01810270028003 [PubMed: 1996917]
- Centers for Disease Control and Prevention. (2011). Self-directed violence surveillance: Uniform definitions and recommended data elements. Retrieved from <http://www.cdc.gov/violenceprevention/pdf/self-directedviolence-a.pdf>
- Clark CB, Perkins A, McCullumsmith CB, Islam MA, Hanover EE, & Cropsey KL (2012). Characteristics of victims of sexual abuse by gender and race in a community corrections population. *Journal of Interpersonal Violence*, 27, 1844–1861. doi: 10.1177/0886260511430390 [PubMed: 22203627]
- Dedert EA, Green KT, Calhoun PS, Yoash-Gantz R, Taber KH, Mumford MM, ... Beckham JC (2009). Association of trauma exposure with psychiatric morbidity in military veterans who have served since September 11, 2001. *Journal of Psychiatric Research*, 43, 830–836. doi: 10.1016/j.jpsychires.2009.01.004 [PubMed: 19232639]
- Department of Defense (2019). *Annual Report on Sexual Assault in the Military*. Retrieved from [https://www.sapr.mil/sites/default/files/DoD\\_Annual\\_Report\\_on\\_Sexual\\_Assault\\_in\\_the\\_Military.pdf](https://www.sapr.mil/sites/default/files/DoD_Annual_Report_on_Sexual_Assault_in_the_Military.pdf)
- Department of Veterans Affairs (2018). *VA National Suicide Data Report 2005–2015*. Retrieved from, [https://www.mentalhealth.va.gov/docs/data-sheets/OMHSP\\_National\\_Suicide\\_Data\\_Report\\_2005-2015\\_06-14-18\\_508-compliant.pdf](https://www.mentalhealth.va.gov/docs/data-sheets/OMHSP_National_Suicide_Data_Report_2005-2015_06-14-18_508-compliant.pdf), 2018.
- Dutra L, de Blank G, Scheiderer E, & Taft C. (2012). Correlates of female veterans' perpetration of relationship aggression Psychological Trauma: Theory, Research, Practice, and Policy, 4, 323–329. doi: 10.1037/a0026849
- Elbogen E, Johnson SC, Wagner HR, Sullivan C, Taft CT, & Beckham JC (2014). Violent behavior and post-traumatic stress disorder in US Iraq and Afghanistan veterans. *The British Journal of Psychiatry*, 204, 368–275. doi: 10.1192/bjp.bp.113.134627 [PubMed: 24578444]
- First MB, Spitzer RL, Gibbon M, & Williams JBW (1994). *Structured Clinical Interview for Axis I DSM-IV Disorders, Version 2.0*. New York, NY: Biometrics Research Department.
- Goldzweig CL, Balekian TM, Rolón C, Yano EM, & Shekelle PG (2006). The state of women veterans' health research: Results of a systematic literature review. *Journal of General Internal Medicine*, 21, S82–S92. doi: 10.1111/j.1525-1497.2006.00380.x [PubMed: 16637952]
- Gross GM, Cunningham KC, Moore DA, Naylor JC, Brancu M, Wagner HR, Elbogen EB, VA Mid-Atlantic MIRECC Workgroup, Calhoun PS, Beckham JC, & Kimbrel NA (2018). Does deployment-related military sexual trauma interact with combat exposure to predict posttraumatic stress disorder in female veterans? A replication study. *Traumatology*, pii: 325827753. PMID: 30202245



- Keane TM, Fairbank JA, Caddell JM, Zimering RT, Taylor KL, & Mora CA (1989). Clinical evaluation of a measure to assess combat exposure. *Journal of Consulting and Clinical Psychology*, 1, 53–55. doi: 10.1037/1040-3589.1.1.53
- Kimbrel NA, Johnson ME, Clancy C, Hertzberg M, Collie C, Van Voorhees EE, Dennis M, Calhoun PS, & Beckham JC (2014). Deliberate self-harm and suicidal ideation among male Iraq/Afghanistan veterans seeking treatment for PTSD. *Journal of Traumatic Stress*, 27(4), 474–477. doi: 10.1002/jts.21932 [PubMed: 25066891]
- Kimerling R, Gima K, Smith MW, Street A, & Frayne S. (2007). The Veterans Health Administration and military sexual trauma. *American Journal of Public Health*, 97, 2160–2166. doi: 10.2105/AJPH.2006.092999 [PubMed: 17971558]
- Kimerling R, Makin-Byrd K, Louzon S, Ignacio RV, & McCarthy JF (2016). Military sexual trauma and suicide mortality. *American Journal of Preventative Medicine*, 50, 684–691. doi: 10.1016/j.amepre.2015.10.019
- Kubany ES, Leisen MB, Kaplan AS, Watson SB, Haynes SN, Owens JA, & Burns K. (2000). Development and preliminary validation of a brief broad-spectrum measure of trauma exposure: The Traumatic Life Events Questionnaire. *Psychological Assessment*, 12, 210–224. doi: 10.1037/1040-3590.12.2.210 [PubMed: 10887767]
- MacManus D, Dean K, Jones M, Rona RJ, Greenberg N, Hull L, ... Fear NT (2013). Violent offending by UK military personnel deployed to Iraq and Afghanistan: A data linkage cohort study. *Lancet*, 381, 907–917. doi: 10.1016/S0140-6736(13)60354-2 [PubMed: 23499041]
- Mechanic MB (2004). Beyond PTSD: Mental health consequences of violence against women. *Journal of Interpersonal Violence*, 19, 1283–1289. doi: 10.1177/0886260504270690 [PubMed: 15534331]
- Monteith LL, Bahraini NH, Matarazzo BB, Gerber HR, Soberay KA, & Forster JE (2016). The influence of gender on suicidal ideation following military sexual trauma among veterans in the Veterans Health Administration. *Psychiatry Research*, 244, 257–265. doi: 10.1016/j.psychres.2016.07.036 [PubMed: 27504921]
- Schry AR, Hibberd R, Wagner HR, Turchik JA, Kimbrel NA, Wong M, ... Brancu M. (2015). Functional correlates of military sexual assault in male veterans. *Psychological Sciences*, 12, 384–393. doi: 10.1037/ser0000053
- Sullivan CP, & Elbogen EB (2014). PTSD symptoms and family versus stranger violence in Iraq and Afghanistan veterans. *Law and Human Behavior*, 38, 1–9. doi: 10.1037/lhb0000035 [PubMed: 23646917]
- Suris A, & Lind L. (2008). Military sexual trauma: A review of prevalence and associated health consequences in veterans. *Trauma, Violence, & Abuse*, 9, 250–269. doi: 10.1177/1524838008324419.
- Walker HE, Freud JS, Ellis RA, Fraine SM, & Wilson LC (2019). The prevalence of sexual revictimization: A meta-analytic review. *Trauma, Violence, & Abuse*, 1, 67–80. doi: 10.1177/1524838017692364
- Wilson LC (2018). The prevalence of military sexual trauma: A meta-analysis. *Trauma, Violence, & Abuse*, 19, 584–597. doi: 10.1177/1524838016683459
- Worthen M. (2011). The relations between traumatic exposures, posttraumatic stress disorder, and anger in male and female veterans. *Journal of Feminist Family Therapy: An International Forum*, 23, 188–201. doi: 10.1080/08952833.2011.604535
- Zinzow HM, Grubaugh AL, Monnier J, Suffoletta-Maierle S, & Frueh BC (2007). Trauma among female veterans: A critical review. *Trauma, Violence, & Abuse*, 8, 384–400. doi: 10.1177/1524838007307295

Logistic regression analyses examining whether military sexual trauma (MSA) was associated with self- and other-directed violence, above and beyond childhood sexual abuse, combat trauma, PTSD diagnosis, and major depressive disorder diagnosis.

**Table 1**

	Men		Women	
	AOR	p	AOR	p
Outcome variable: Difficulty controlling violent behavior				
Childhood sexual abuse	1.230	.601	.682	.502
Combat trauma	1.033**	.004	1.034	.227
PTSD	2.786**	.000	5.291*	.047
Major depressive disorder	1.667*	.040	1.297	.666
Military sexual assault	2.194	.122	5.201**	.004
Outcome variable: Attempting suicide				
Childhood sexual abuse	3.089**	.000	1.681	.123
Combat trauma	1.002	.834	.976	.268
PTSD	2.074**	.000	2.164*	.045
Major depressive disorder	3.500**	.000	1.758	.115
Military sexual assault	1.996	.166	3.599**	.002

\*  $p < .05$ ;

\*\*  $p < .01$ .