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Characteristics of Veterans and Military Service Members Who Endorse Causing Harm, Injury, or Death to Others in the Military

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Abstract

Objective—The purpose of the present research was to examine the demographic and mental health characteristics of veterans and service members who endorsed having caused harm, injury, or death to another person on deployment, while taking these individuals' total number of other lifetime traumas into account.

Method—Data for the present study were collected as part of the standard clinical evaluation for 228 treatment-seeking veterans and service members.

Results—Those who reported having caused harm, injury, or death to another person on deployment (22.4%) were more likely to be male, to have served in the Marines, to have served post-9/11, and to endorse other traumas commonly reported on deployment than those who did not endorse causing harm, injury, or death. Those who endorsed causing harm on deployment were less likely to have served in the Air Force, and to have experienced sexual assault than those who did not cause harm. Causing harm, injury, or death was associated with higher levels of PTSD, drug use, and expressive anger at the bivariate level, but was no longer associated with mental health problems after accounting for the number of other lifetime traumas.

Conclusions—Examining the role of causing harm in isolation may lead to false conclusions. Clinicians and researchers should assess for veterans' and service members' entire trauma histories.

Keywords

PTSD; Trauma; Veteran; Service Members; Perpetration-Based Trauma

Causing harm, injury, or death to another human being (hereafter referred to as “causing harm”) is often an unavoidable part of military service members' deployment to warzones and armed conflicts. Depending on the mission, service members may be required to engage in firefights with combatants, which may result in wounding or killing the enemy. In other cases, service members may cause harm to non-combatants who are close to the action. Causing harm has recently been given greater attention with emerging literature on *moral injury* (cf. Frankfurt & Frazier, 2016). Though statistics vary based on the sample and

service era, between 40–50% of veterans who served during the Vietnam War, Operation Enduring Freedom (OEF), and Operation Iraqi Freedom (OIF) reported killing or believing to have killed another person (MacNair, 2002; Maguen et al., 2010; Maguen et al., 2013). Despite explicit training, causing harm, whether intentional or unintentional, can be traumatic and can have serious consequences for service members' mental health (MacNair, 2002).

Though the majority of research on traumatic stress has focused on victimization-based events (i.e., events that *happen to* someone), research on perpetration-induced traumas (i.e., events that *are caused by* someone) suggests that causing harm in warzones or armed conflicts is also a predictor of posttraumatic stress disorder (PTSD; MacNair, 2002; Maguen et al., 2010). Specifically, early research on killing that examined self-report data from Vietnam veterans suggests that killing in combat directly predicts PTSD, even after controlling for committing atrocities (Fontana & Rosenheck, 1999; MacNair, 2002). Killing non-combatants tended to be associated with more severe PTSD symptoms than killing combatants (Maguen et al., 2009). Research examining the role of killing in light of other combat experiences demonstrated that other combat experiences did not predict mental health problems after accounting for killing (Maguen et al., 2009). Additional research examining differences between firing a weapon during combat and killing suggested that firing a weapon was only a positive predictor of PTSD severity when it resulted in killing (Tripp, McDevitt-Murphy, & Henschel, 2015). Similarly, after accounting for killing a combatant, witnessing injury or death to fellow service members was no longer a significant predictor of PTSD symptoms (Van Winkle & Safer, 2011). These findings suggest that taking a human life may be one of the strongest determinants of post-deployment PTSD.

In addition to its strong relationship with PTSD, killing in war also has strong positive associations with other mental health problems, such as depression, substance use disorders, and feelings of anger (Maguen et al., 2009, 2012). Furthermore, veterans who reported killing in war were twice as likely as those who denied killing another person to endorse suicidal ideation (Maguen et al., 2012). Common moderating variables, such as age, education, and ethnicity and combat exposure did not affect the association between killing in war and mental health problems (Maguen et al., 2012). Notably, the association between killing in war and suicidal ideation was also independent of other mental health problems, such as PTSD, depression, and substance use, suggesting that it is important to formally evaluate the impact of killing during clinical encounters (Maguen et al., 2012).

Although research has begun to explore the impact of causing harm, to our knowledge no study has yet accounted for other lifetime traumatic experiences when examining the role causing harm plays in predicting post-military mental health problems. It is important to consider additional traumatic experiences, as it is to be expected that individuals who are placed in situations in which they cause harm (e.g., combat deployments) may be more likely to experience other traumas, such as explosions, witnessing the death of a fellow service member, or handling dead bodies. Thus, causing harm may be a proxy for overall severity of their combat experiences. Additionally, according to recent research, approximately every fourth service member enters the military with a history of non-military traumas that may account for post-military mental health problems (Blosnich, Dichter,

Cerulli, Batten, & Bossarte, 2014). Because traumatic experiences tend to have a cumulative effect in terms of PTSD and other mental health problems (cf. Hedtke et al., 2008), it is questionable whether traumatic experiences such as causing harm can be considered without taking into account other lifetime traumas. It is possible that the cumulative effect of pre-existing traumatic experiences can either exacerbate the negative effect that causing harm has on service members' mental health or that it accounts for a significantly larger portion of the variance in predicting post-deployment mental health problems.

We conducted the present study to address this gap in the literature. The first goal of present study was to determine characteristics of service members and veterans who endorsed having caused harm, injury, or death to another person during their military service. The second goal was to determine the extent to which causing harm on deployment is related to other lifetime traumatic events. The third goal of this research was to determine whether causing harm on deployment significantly predicted mental health problems (i.e., PTSD, anxiety, and depression, expressed anger, alcohol use, and drug use), even after controlling for potential demographic covariates and other lifetime traumatic events.

Materials and Methods

Participants

The data for the present study were collected as part of the standard clinical evaluation of treatment-seeking veterans at the Road Home Program, an outpatient mental health clinic for veterans and their families at Rush University Medical Center in Chicago, IL. At the Road Home Program, service members, veterans, and their family members are able to receive mental health care free of charge regardless of extent of service, branch of service, or discharge status. The veteran and service member sample ($N = 228$) for this study consisted of 74.9% males ($n = 170$) and 25.1% females ($n = 57$), with one unknown. The veterans in the sample had a mean age of 38.74 ($SD = 13.38$, range: 19–80 years). Additional military and demographic characteristics of the sample are displayed in Table 1.

Measures

All measures used in the present study are part of a standard battery of self-report measures that veterans completed after their intake appointment. In addition to the self-report assessments specified below, service members and veterans were also asked to provide standard demographic information, such as age, gender, race, ethnicity, and relationship status, and information about their military service, including branch, rank, service era (pre-post-9/11), and military status.

Trauma History Questionnaire (THQ)

Trauma history was assessed using the THQ, a 21-item self-report assessment. The THQ was developed by the second author of this study to assess lifetime exposure to Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5; American Psychiatric Association, 2013) traumatic events. The measure was adapted from the Traumatic Events Questionnaire (Vrana & Lauterbach, 1994) and the Life Events Checklist (Blake et al., 1995). Individuals are asked to report whether or not they ever experienced 21 specific types

of trauma with “Yes/No” responses. Trauma categories are shown in Table 2. Items are phrased to evaluate whether the individual experienced or witnessed events in which there was a risk of death, serious injury or sexual violence to more closely align with the DSM-5 criteria A for PTSD (e.g., “Have you ever been in or witnessed a transportation accident [e.g., car, boat, train, plane] where you felt you or someone else was in danger of death or injury?”). The THQ also includes one item asking individuals whether they experienced another extremely stressful situation that was not included in the other items. Causing harm, injury, or death during military service was assessed with the item “Have you ever caused serious harm, injury, or death to someone else?” Endorsement of this item was only counted as having caused harm on deployment if the individual’s description of the event clearly specified that harm was caused during deployment (e.g., “Iraq”, “Combat”, “On deployment”). In cases where the individual’s description was unclear (e.g., “Shot someone”), we verified the context with the intake clinician. The total number of other lifetime traumas was calculated by summing the 20 specific trauma items (Yes = 1, No = 0), excluding the causing harm item.

PTSD Checklist for DSM-5 (PCL-5; Weathers et al., 2013)

PTSD symptoms were assessed using the PCL-5, a 20-item self-report measure of the DSM-5 symptoms of PTSD experienced during the past month. Individuals were asked to rate their PTSD symptoms in response to their worst/most distressing traumatic event (index trauma). Higher scores on the PCL indicate greater PTSD severity. The PCL-5 has been validated and shown to have good internal consistency in samples of veterans and treatment-seeking service members (Bovin et al., 2015; Weathers et al., 2013; Wortmann et al., 2016). Internal consistency reliability for the PCL-5 in the current sample was .96.

Alcohol Use Disorders Identification Test (AUDIT-C; Bush et al., 1998)

Alcohol use was assessed using the AUDIT-C, a 3-item self-report measure which assesses hazardous and harmful patterns of alcohol consumption. Higher scores on the AUDIT-C indicate greater alcohol use. The AUDIT-C has been validated and shown to have good internal consistency in a variety of different samples, and is considered the gold standard in the field (Bush et al., 1998; Crawford, Fulton, Swinkels, Beckham, & Calhoun, 2013). Internal consistency reliability for the AUDIT-C in the current sample was .77.

Drug Abuse Screening Test (DAST-10; Skinner, 1982)

Drug use was assessed using the DAST-10, a 10-item self-report measure which asks about individuals’ use of drugs and related health effects and behaviors. The DAST-10 is commonly used as a screening instrument to establish the extent of drug-related problems. Higher scores on the DAST-10 indicate greater drug use. The DAST-10 has been validated and shown to have good internal consistency in a variety of different samples (Yudko, Lozhkina, & Fouts, 2007). Internal consistency reliability for the DAST-10 in the current sample was .81.

Depression Anxiety Severity Scale (DASS-21; Lovibond & Lovibond, 1995)

Symptoms of depression, anxiety, and stress were assessed using the DASS-21, a 21-item measure of the negative emotional states of depression, anxious arousal, and stress (chronic tension). The DASS-21 consists of three subscales assessing depression, anxiety, and stress. Higher scores on the subscales indicate greater symptom severity. The DASS-21 has been validated and shown to have good internal consistency in a variety of different samples (Osman et al., 2012; Ronk, Korman, Hooke, & Page, 2013). Internal consistency reliability for the DASS-21 in the current sample was .93 for the depression subscale, .86 for the anxiety subscale, and .90 for the stress subscale.

Brief Anger and Aggression Questionnaire (BAAQ; Maiuro, Vitaliano, & Cohn, 1987)

Expressed anger was assessed using the BAAQ, a 6-item self-report measure which assesses anger dyscontrol that may involve interpersonal violence. Higher scores on the BAAQ indicate greater expressed anger. The BAAQ has been validated and shown to have good internal consistency in a variety of different samples (Webster et al., 2014). Internal consistency reliability for the BAAQ in the current sample was .82.

Results

A total of 22.4% ($n = 51$) of the veterans and service members in this sample endorsed having caused harm on deployment. The remaining individuals (76.6%; $n = 177$) either denied or did not specify having caused harm on deployment.

Military and Demographic Factors

Analyses examining the relationship between causing harm on deployment and military/demographic characteristics are reported in Table 1. Veterans and service members who reported having caused harm on deployment were significantly more likely to be male. Causing harm on deployment was also associated with military branch. Post-hoc analyses showed that those who served in the Marines were more likely to report having caused harm on deployment than those who did not serve in the Marines ($\chi^2(1) = 5.49, p = .02$). Individuals in the Air Force were significantly less likely to report having caused harm on deployment than those not in the Air Force ($\chi^2(1) = 4.53, p = .03$). Causing harm on deployment was not significantly associated with age, race, ethnicity, relationship status, military rank, or post-9/11 status.

Given their association with causing harm on deployment, we evaluated sex, service in the Air Force, and service in the Marines as possible covariates by examining their association with the outcome variables of interest (PCL-5, AUDIT-C, DASS-21, DAST-10, BAAQ). Those who served in the Marines reported significantly higher levels of depression ($M = 21.49, SD = 12.24$) and alcohol use ($M = 4.79, SD = 3.72$) than those who did not serve in the Marines (depression: $M = 16.69, SD = 11.58, d = .41, p = .017$; alcohol use: $M = 3.51, SD = 2.91, d = .41, p = .016$). Additionally, men reported higher levels of alcohol use ($M = 4.11, SD = 3.14$) than women ($M = 2.64, SD = 2.73, d = .47, p = .002$). Thus, we included service in the Marines and sex as covariates in multivariate analyses with the relevant outcome variables. No other relationships were significant.

Other Lifetime Trauma Exposure

Relationships between causing harm on deployment and other lifetime traumatic events are reported in Table 2. Individuals who reported having caused harm were significantly more likely to endorse exposure to “fire or explosions,” “dangerous chemicals or radioactivity,” “assault with a weapon,” “danger of death or injury during military service,” “severe injury during military service,” “witnessing death or serious injury,” “other situations involving danger of death,” “seeing or handling dead bodies,” and “witnessing severe human suffering.” Additionally, individuals who endorsed causing harm on deployment were significantly less likely to report experiencing “sexual assault,” “other forced sexual contact,” and “serious or life-threatening illness.” Overall, individuals who reported causing harm on deployment reported experiencing a significantly greater number of other lifetime traumas ($M = 11.17$, $SD = 2.73$) than those who denied causing harm on deployment ($M = 8.03$, $SD = 4.16$; $d = -.77$, $p < .001$).

Given that causing harm on deployment was associated with a greater number of lifetime traumas, we evaluated whether total lifetime trauma exposure was associated with the outcome variables of interest (i.e., PCL-5, AUDIT-C, DASS-21, DAST-10, and BAAQ). Correlation analyses showed that total number of other lifetime traumas was significantly associated with PTSD ($r = .44$, $p < .001$, $n = 187$), depression ($r = .30$, $p < .001$, $n = 192$), anxiety ($r = .36$, $p < .001$, $n = 192$), stress ($r = .38$, $p < .001$, $n = 192$), drug use ($r = .20$, $p = .007$, $n = 190$), and expressed anger ($r = .33$, $p < .001$, $n = 190$). Thus, total number of other lifetime traumas was included as a covariate in multivariate analyses with these outcome variables. The total number of lifetime traumas was not significantly associated with alcohol use ($r = .11$, $p = .120$, $n = 192$).

Missing Data Analysis for Scored Variables

Of the 228 participants, 43 (18.9%) had missing data on at least one of the scored variables (i.e., total lifetime trauma, PCL-5, AUDIT-C, DAST-10, DASS-21, and BAAQ). The presence of missing data was unrelated to any demographic variables (all $p > .17$), suggesting that the data were missing at random (MAR). Studies have shown that multiple imputation is superior to pairwise or listwise deletion under conditions of MAR (Sinharay, Stern, & Russell, 2001). Thus, we performed multiple imputation using chained equations ($n = 25$ imputations) was used to handle missing data with the “*mi impute chained*” command in Stata version 13.1 (StataCorp, 2013). All subsequent analyses were conducted using the “*mi estimate*” command in Stata.

Mental Health Problems

Table 3 reports simple linear regressions examining the bivariate relationship between causing harm on deployment and measures of mental health problems along with the estimated means and standard deviations separated by those who did and did not endorse causing harm. T-tests were not conducted because they are not permitted using the *mi estimate* command. Those who endorsed having caused harm on deployment reported significantly greater PTSD symptoms, depression severity, stress (chronic tension), and expressed anger than those who did not report causing harm on deployment. Causing harm was not significantly associated with anxiety (anxious arousal), or substance use.

Based on these analyses, we conducted a series of multiple regression analyses examining causing harm on deployment as a predictor of PTSD, depression, stress, and expressed anger while accounting for total number of other lifetime traumas for all four regressions and service in the Marines for the regression predicting depression (see Table 4). Causing harm on deployment was a trending predictor of PTSD ($p = .083$) and expressed anger ($p = .083$). Causing harm failed to predict depression and stress after accounting for the covariates. The total number of other lifetime traumas emerged as a significant predictor of PTSD severity, depression severity, stress, and expressed anger.

Discussion

The present study examined characteristics of veterans and service members who reported having caused harm, injury, or death to another person during their military service. In the current sample, 22.4% of the veterans and service members endorsed that they have caused harm on deployment. This number is smaller than previous samples of service members returning from deployment where individuals were asked directly about killing another person (e.g., 40–50%; MacNair, 2002; Maguen et al., 2010; Maguen et al., 2013). This may reflect differences in our clinic population given that ours is the only study reporting on veterans and service members receiving mental health services outside of the VA. Previous studies, which reported higher rates of killing or causing harm, sampled service members upon returning from deployments or relied on veterans in VA system (e.g., MacNair, 2002; Maguen et al., 2010; Maguen et al., 2013). Given that our clinic provides mental health services to all service members and veterans regardless of their length of service or discharge status, it is possible that generally fewer veterans in our sample deployed when compared with other samples, which could explain the lower rates of service members and veterans who endorsed causing harm on deployment. It is also plausible that more direct questions about causing harm or killing, as have been used in previous studies (e.g., MacNair, 2002; Maguen et al., 2010; Maguen et al., 2013), would have resulted in more accurate self-reporting of these actions because service members and veterans may have interpreted the question “Have you ever caused serious harm, injury, or death to someone else?” to refer to harm that was caused while not deployed or actively engaged in missions. Regardless of this difference, with every fifth service member or veteran at our clinic endorsing causing harm on deployment, our findings highlight the high prevalence of this phenomenon among current and former military personnel.

Veterans and service members endorsed an average of nine items on the THQ, indicating that this is a highly traumatized sample. Those who endorsed causing harm on deployment reported on average three additional lifetime traumas compared to those who did not report causing harm on deployment. Specifically, veterans and service members who reported causing harm on deployment were more likely to have experienced a range of other events commonly associated with combat. Examples include being significantly more likely to experience “fire or explosions,” “dangerous chemicals or radioactivity,” “assault with a weapon,” “danger of death or injury during military service,” “severe injury during military service,” “witnessing death or serious injury,” “seeing or handling dead bodies,” and “witnessing severe human suffering.” The simultaneous endorsement of causing harm on deployment and the aforementioned other traumatic experiences suggests that the act of

causing harm, injury, or death may simply be one of the large number of traumatic experiences that deployed service members commonly experience during their tours of duty. In addition to the deployment-related experiences described above, veterans and service members who reported causing harm on deployment were also more likely to report having experienced “other situations involving danger of death.” Though it is unclear whether these traumatic experiences occurred before or after military service, the increased likelihood for other traumas to co-occur with causing harm on deployment further supports the notion that many individuals who have served in the military have an extensive trauma history (e.g., Stretch, Knudson, & Durand, 1998).

Causing harm on deployment was associated with PTSD, depression, stress, and expressed anger at the bivariate level. Among individuals who endorsed causing harm on deployment, and after accounting for covariates, PTSD severity and expressed anger analyses showed a trend toward association. Only the total number of other lifetime traumas (excluding causing harm on deployment) significantly predicted all four outcomes in the multivariate regression analysis. Our findings are in line with previous research indicating that trauma experiences have a cumulative effect on PTSD and other mental health problems (cf. Hedtke et al., 2008). Our results suggest that examining the impact of causing harm on deployment on an individual’s post-deployment functioning may be misleading without taking other traumatic experiences into consideration. An important implication of this work is that clinicians should always conduct a thorough trauma history assessment when evaluating veterans rather than focusing exclusively on combat experiences or index traumas.

The fact that causing harm on deployment was only marginally associated with PTSD severity and expressed anger, and did not significantly predict other mental health problems was unexpected given the extensive literature on the strong link between killing and PTSD (e.g., Maguen et al., 2009, 2011). These findings may be explained by the fact that previous research accounted for other combat experiences, but not other lifetime traumas. Thus, it is possible that causing harm on deployment may carry more weight than other combat experiences, but that the accumulation of all lifetime traumas outweighs the act of causing harm, injury, or death with regards to causing distress. Additionally, our ‘causing harm on deployment’ variable did not focus exclusively on killing, which has been the primary focus of previous research (e.g., Maguen et al., 2009, 2011). It is possible that the types of events captured by our ‘causing harm on deployment’ variable may not be as traumatogenic as killing specifically. Further research is needed to explore the impact of different types of perpetration-induced trauma in the context of other lifetime traumatic events.

Sex differences emerged in our analyses. Over 28% of men in our sample endorsed causing harm on deployment whereas only 3.5% of women endorsed causing harm. One likely explanation for these findings is that until recently, female service members were restricted from participating in active combat roles where the infliction of harm, injury, or death is most likely to occur. Thus, these sex differences may decrease over time as women in the military begin to engage in combat roles. Female veterans also report higher rates of sexual assault than their male counterparts, which likely explains the negative relationship we observed between sexual trauma (“sexual assault” and “other forced sexual contact”) and causing harm on deployment.

The present study has a several limitations. The THQ question about whether an individual has caused harm, injury, or death does not specifically ask about whether harm was inflicted on the enemy or non-combatants, or whether harm was intended by the individuals him- or herself or the commanding officer. These may have affected the relationship between causing harm and mental health problems. The THQ only provides an approximate count of the number of other lifetime traumas given that a single traumatic event may cause someone to endorse several items, which would lead to over-reporting, and an event that happened multiple times would only count once, which would lead to under-reporting. The observed relationships between other lifetime traumas and mental health problems lends confidence that this measure captures the extent of lifetime traumatization. The retrospective, cross-sectional data used in this study prevents us from examining the direction of the relationship between causing harm and mental health problems. For example, it is possible that causing harm leads to expressed anger. However, it is also possible that higher tendency to express anger led to a person causing harm on deployment. Future research should examine the direction of these relationships, while taking service members' and veterans' comprehensive trauma histories into account.

Conclusion

The present study was the first to examine characteristics of veterans and service members who reported causing harm while accounting for the experience of other lifetime traumatic events. Our findings suggest that causing harm is a common experience among male veterans and service members that is associated with an increased risk for other types of military and non-military traumatic events. The cumulative impact of lifetime traumatic events had a stronger relationship with mental health problems than causing harm on deployment in this sample. The findings from this study highlight the importance of taking veterans' and service members' entire trauma history into account, rather than simply focusing on a single type of traumatic event, such as causing harm on deployment. Disentangling the specific roles that various lifetime traumatic events play in the development of psychological distress will be critical in future research to help improve mental health services for veterans and service members.

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Chi-square analyses of demographic characteristics by those who did or did not endorse causing harm, injury, or death to others on deployment.

Table 1

	Did Not Cause Harm		Caused Harm		$\chi^2(df)$	<i>p</i>
	<i>n</i>	%	%	%		
Gender	-	-	-	-	15.70(1)	<0.001***
Female	57	96.49	3.51	-	-	-
Male	170	71.18	28.82	-	-	-
Race	-	-	-	-	4.41(2)	0.110
White	106	72.64	27.36	-	-	-
Black/African American	71	85.92	14.08	-	-	-
Other	45	75.56	24.44	-	-	-
Hispanic/Latino Ethnicity	-	-	-	-	0.01(1)	0.909
Not Hispanic/Latino	167	77.84	22.16	-	-	-
Hispanic/Latino	56	78.57	21.43	-	-	-
Relationship Status	-	-	-	-	4.05(3)	0.132
Single	102	82.35	17.65	-	-	-
Married/Engaged	79	69.62	30.38	-	-	-
Divorced/Separated/Widowed	39	76.92	23.08	-	-	-
Military Branch	-	-	-	-	12.92(4)	0.012*
Army/Army Reserve/Army National Guard	126	75.40	24.60	-	-	-
Air Force/Air National Guard	22	95.45	4.55	-	-	-
Marines	45	64.44	35.56	-	-	-
Navy	26	92.31	7.69	-	-	-
Coast Guard	3	100.00	0.00	-	-	-
Rank	-	-	-	-	2.61(2)	0.271
E1-E3	58	84.48	15.52	-	-	-
E4-E9	152	74.34	25.66	-	-	-
Officer	16	81.25	18.75	-	-	-
Service Era	-	-	-	-	2.73(1)	0.098
Post-9/11	158	73.42	26.58	-	-	-
Pre-9/11	26	88.46	11.54	-	-	-

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	<i>n</i>	Did Not Cause Harm		Caused Harm		<i>p</i>
		%	%	%	%	
Military Status						0.196
Discharged/Retired/Medically Retired	184	76.09	-	23.91	-	-
Active Duty/Reserves/Inactive Ready Reserve/National Guard	41	85.37	-	14.63	-	-

Note.

* $p < 0.05$,

*** $p < 0.001$.

Table 2

Chi-square analyses of trauma exposure by those who did or did not endorse causing harm, injury, or death to others on deployment.

Trauma Type	Among those who did not cause harm ^a	Among those who caused harm ^b	$\chi^2(df)$	<i>p</i>
Natural Disaster	-	-	0.93(1)	0.335
No, <i>n</i> (%)	123 (69.89)	32 (62.75)	-	-
Yes, <i>n</i> (%)	53 (30.11)	19 (37.25)	-	-
Fire or Explosion	-	-	30.22(1)	<0.001 ***
No, <i>n</i> (%)	101 (57.39)	7 (13.73)	-	-
Yes, <i>n</i> (%)	75 (42.61)	44 (86.27)	-	-
Transportation Accidents	-	-	0.80(1)	0.371
No, <i>n</i> (%)	53 (29.94)	12 (23.53)	-	-
Yes, <i>n</i> (%)	124 (70.06)	39 (76.47)	-	-
Other Serious Accident	-	-	1.08(1)	0.299
No, <i>n</i> (%)	87 (49.43)	21 (41.18)	-	-
Yes, <i>n</i> (%)	89 (50.57)	30 (58.82)	-	-
Chemicals/Radioactivity	-	-	24.81(1)	<0.001 ***
No, <i>n</i> (%)	116 (68.24)	14 (28.57)	-	-
Yes, <i>n</i> (%)	54 (31.76)	35 (71.41)	-	-
Beaten or Physically Assaulted	-	-	0.07(1)	0.799
No, <i>n</i> (%)	76 (43.18)	21 (41.18)	-	-
Yes, <i>n</i> (%)	100 (56.82)	30 (58.82)	-	-
Assaulted with Weapon	-	-	23.28(1)	<0.001 ***
No, <i>n</i> (%)	99 (55.93)	9 (17.65)	-	-
Yes, <i>n</i> (%)	78 (44.07)	42 (82.35)	-	-
Danger of Death or Injury During Military Service	-	-	27.73(1)	<0.001 ***
No, <i>n</i> (%)	72 (41.14)	1 (1.96)	-	-
Yes, <i>n</i> (%)	103 (58.86)	50 (98.04)	-	-
Severe Injury During Military Service	-	-	4.94(1)	0.026 *
No, <i>n</i> (%)	125 (71.84)	27 (55.10)	-	-
Yes, <i>n</i> (%)	49 (28.16)	22 (44.90)	-	-
Danger of Death or Injury to Self Outside of Military Service	-	-	3.11(1)	0.078
No, <i>n</i> (%)	105 (60.00)	23 (46.00)	-	-
Yes, <i>n</i> (%)	70 (40.00)	27 (54.00)	-	-
Witnessed Serious Injury or Death	-	-	29.34(1)	<0.001 ***
No, <i>n</i> (%)	675 (42.61)	1 (1.96)	-	-
Yes, <i>n</i> (%)	101 (57.39)	50 (98.04)	-	-
Violent or Accidental Death of Close Friends or Family	-	-	3.56(1)	0.059
No, <i>n</i> (%)	62 (35.63)	11 (21.57)	-	-
Yes, <i>n</i> (%)	112 (64.37)	40 (78.43)	-	-

Trauma Type	Among those who did not cause harm ^a	Among those who caused harm ^b	$\chi^2(df)$	<i>p</i>
Other Situation of Danger of Death or Injury	-	-	4.18(1)	0.041 [*]
No, <i>n</i> (%)	85 (48.30)	16 (32.00)	-	-
Yes, <i>n</i> (%)	91 (51.70)	34 (68.00)	-	-
Held in Captivity	-	-	0.26(1)	0.607
No, <i>n</i> (%)	161 (94.15)	47 (92.16)	-	-
Yes, <i>n</i> (%)	10 (5.85)	4 (7.84)	-	-
Saw or Handled Dead Bodies (not funeral)	-	-	23.68(1)	<0.001 ^{***}
No, <i>n</i> (%)	70 (40.00)	2 (3.92)	-	-
Yes, <i>n</i> (%)	105 (60.00)	49 (96.08)	-	-
Witnessed Severe Human Suffering	-	-	15.37(1)	<0.001 ^{***}
No, <i>n</i> (%)	142 (80.23)	27 (52.94)	-	-
Yes, <i>n</i> (%)	35 (19.77)	24 (47.06)	-	-
Sexually Molested Under Force or Threat	-	-	0.47(1)	0.495
No, <i>n</i> (%)	129 (73.71)	40 (78.43)	-	-
Yes, <i>n</i> (%)	46 (26.29)	11 (21.57)	-	-
Sexually Assaulted	-	-	5.41(1)	0.020 [*]
No, <i>n</i> (%)	126 (72.41)	45 (88.24)	-	-
Yes, <i>n</i> (%)	48 (27.59)	6 (11.76)	-	-
Other Forced Sexual Contact	-	-	4.26(1)	0.039 [*]
No, <i>n</i> (%)	151 (85.31)	49 (96.08)	-	-
Yes, <i>n</i> (%)	26 (14.69)	2 (3.92)	-	-
Life-Threatening Illness	-	-	4.39(1)	0.036 [*]
No, <i>n</i> (%)	136 (76.84)	46 (90.20)	-	-
Yes, <i>n</i> (%)	41 (23.16)	5 (9.80)	-	-

^aThis column represents the proportion of individuals who experienced other traumatic events among those who did not endorse causing harm.

^bThis column represents the proportion of individuals who experienced other traumatic events among those who endorsed causing harm.

* $p < 0.05$,

*** $p < 0.001$

Mental health differences between individuals who did or did not endorse causing harm, injury, or death to others on deployment.

Table 3

	Did Not Cause Harm <i>n</i> = 177		Caused Harm <i>n</i> = 51		
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>p</i>
PTSD	38.52	1.64	50.51	2.67	11.99 (3.39) <.001
Depression	16.79	0.92	21.20	1.70	4.41 (1.93) 0.023
Anxiety	13.98	0.77	15.70	1.59	1.72 (1.66) 0.303
Stress	20.18	0.85	24.37	1.49	4.19 (1.76) 0.018
Alcohol Use	3.62	0.24	4.16	0.43	0.53 (0.50) 0.283
Drug Use	1.63	0.14	2.14	0.33	0.51 (0.31) 0.102
Expressive Anger	9.36	0.40	11.94	0.78	2.58 (0.84) 0.002

Note. *N* = 228. Means, standard errors, and simple linear regressions were calculated using the *mi estimate* command with multiple imputations (*n* = 25) using chained equations. *T*-tests were not conducted because they are not permitted using the *mi estimate* command.

Table 4

Multiple regressions predicting mental health problems.

Predictor	PTSD		Depression		Stress		Explosive Anger	
	<i>B</i> (<i>SE</i>)	<i>p</i>	<i>B</i> (<i>SE</i>)	<i>p</i>	<i>B</i> (<i>SE</i>)	<i>p</i>	<i>B</i> (<i>SE</i>)	<i>p</i>
Marine	-	-	4.64 (2.04)	0.024	-	-	-	-
Other Lifetime Trauma Exposure	2.08 (0.35)	<.001	0.83 (0.22)	<.001	0.93 (0.19)	<.001	0.36 (0.09)	<.001
Caused Harm in the Military	5.81 (3.34)	0.083	1.04 (1.98)	0.602	1.43 (1.78)	0.424	1.50 (0.86)	0.083

Note. *N* = 228. Multiple regressions were conducted using the *mi estimate* command with multiple imputation (*n* = 25) using chained equations.