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Suicide acceptability among U.S. Veterans with active duty experience: Results from the 2010 General Social Survey

John Blosnich, PhD and

Department of Psychiatry, University of Rochester, Box PSYCH, 300 Crittenden Blvd. Rochester, NY 14642, USA, (p) 724-344-8504, (f) 585-276-2065

Robert Bossarte, PhD

Department of Psychiatry, University of Rochester, Box PSYCH, 300 Crittenden Blvd. Rochester, NY 14642, USA

John Blosnich: john_blosnich@urmc.rochester.edu

Abstract

Objectives—To examine whether U.S. Veterans more frequently indicate suicide acceptability than non-Veterans.

Methods—The 2010 General Social Survey, which employed a probability-based sample of U.S. adults, was analyzed by self-reported Veteran status on suicide acceptability in four, separate hypothetical situations regarding ending one's life (i.e., incurable illness, bankruptcy, bringing dishonor/shame upon family; tired of living and ready to die).

Results—Veterans were no more likely to endorse suicide as acceptable than their non-Veteran counterparts.

Conclusions—Results suggest that attitudes approving of suicide are not different among Veterans in general and non-Veterans. However, future research may need to examine if subpopulations of Veterans with elevated risk for suicide may report differential attitudes about suicide.

Keywords

suicide; veterans health

Introduction

As a leading cause of death in the United States, suicide is a public health priority warranting etiologic research to inform prevention and intervention strategies. Cognitive antecedents of suicidal behavior are complex, and individual attitudes about suicide have been associated with suicide and suicide attempts, such that endorsing suicide as acceptable (i.e., suicide acceptability) has been positively related with suicidal planning (Joe, Romer, & Jamieson, 2007) and suicide ideation and attempt (Gibb, Andover, & Beach, 2006; Lee, Tsang, Li, Phillips, & Kleinman, 2007; Renberg & Jacobsson, 2003). Although the directionality of this association has not been established, researchers continue to explore suicide acceptability and the role it may play in suicide risk (Agnew, 1998; Stack & Kposowa, 2011).

Correspondence to: John Blosnich, john_blosnich@urmc.rochester.edu.

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Suicidal actions typically are not thought of as health behaviors. However it has been suggested that theories of health behavior provide a useful framework for understanding suicide; particularly the associations between use of mental health services and suicide risk (Gipson & King, 2012). One health behavior framework that helps in understanding the association of suicide acceptability associated with suicide risk is the Theory of Planned Behavior. In this model, attitudes about behaviors – along with subjective norms and perceived behavioral control – are the three key foundations undergirding intentions, which lead to behaviors (Ajzen, 1991). Thus, suicide acceptability may represent one measure in the attitudinal component contributing to intention leading to suicidal behavior. However, suicide acceptability has not been examined among subgroups of the U.S. population that may have higher risk of suicide, such as Veterans.

Some segments of the Veteran population have elevated risk for suicide, such as recent Veterans of conflicts in Iraq and Afghanistan, women Veterans, and Veterans using Veterans Health Administration (VHA) services (Kang & Bullman, 2008; McCarthy et al., 2009; McFarland, Kaplan, & Huguet, 2010). However, literature remains discordant about whether Veteran status, itself, is a marker of increased risk (Gibbons, Hendricks Brown, & Hur, 2012). Factors identified among Veterans that may contribute uniquely to suicide risk include access to firearms and exposure to combat (Bryan, Cukrowicz, West, & Morrow, 2010; Kaplan, McFarland, & Huguet, 2009). It is unclear if suicide acceptability may be another risk factor differentially occurring among Veterans compared with non-Veterans.

Using secondary analysis of survey data, the purpose of this investigation is to test the hypothesis that Veterans with a history of active duty service will report greater acceptability of suicide than the general non-Veteran population.

Methods

Data are from the cross-sectional, computer-assisted personal interview segment of the General Social Survey (GSS), which was conducted February-April of 2010 with a probability-based sample of non-institutionalized U.S. adults over the age of 18 (Smith, Marsden, Hout, & Kim, 2011). Data are publicly available from the GSS website (<http://www3.norc.umd.edu/GSS+Website/>). The total sample consisted of 2,044 respondents across three sample splits, in which core items were asked in all three splits, while topical modules were asked differentially across the splits. In two of the three splits, suicide acceptability was ascertained with four items: “Do you think a person has the right to end his or her own life if this person... 1) has an incurable disease; 2) has gone bankrupt; 3) has dishonored his or her family, and 4) is tired of living and is ready to die.” Each of the four scenarios were read separately with response options: yes, no, don’t know, refuse to answer. These GSS measures have been used in previous studies of suicide acceptability (see Agnew, 1998). Since suicide acceptability is the principle outcome, the analytic sample was limited to the two splits that received these items (n=1,430).

Veteran status was derived from the item “Have you ever been on active duty for military training or service for two consecutive months or more?” Affirmative responses were asked a follow-up question: “What was your total time on active duty?” The responses were coded: No active duty (n=1,275); Yes, less than 2 years (n=31); Yes, 2–4 years (n=78); Yes, more than 4 years (n=44). Answers were recoded into “no active duty” (which includes non-Veterans) versus Veterans who had at least some active duty experience (i.e., less than 2 years through 4 or more years). Demographic characteristics included age (in years), race/ethnicity (white, black, other), sex, educational attainment (number of years of education), and religious attendance (0=never attend through 8=attend several times a week).

Differences by Veteran status were examined with chi-square tests of independence. Significant bivariate differences were examined with multivariate logistic regression models adjusted for demographic and selected covariates. Percentages and odds ratios were reported with 95% confidence intervals. All analyses were conducted with Stata/SE version 12 and were weighted using a GSS-derived weight (i.e., WTSSNR) to account for sampling design and area-level non-response. All included variables were missing 4% of their values, thus missing data were handled with listwise deletion. This study was approved by the University of Rochester IRB.

Results

Among the analytic sample, the weighted prevalence of self-identified Veterans who experienced active duty was 10.2% (95%CI: 8.7–11.7). Significantly more Veterans were white, older and male (see Table 1). Veterans were no more likely than the non-Veteran general population to endorse suicide acceptability across any of the four scenarios. As a respondent's number of years of education increased, s/he had increased odds of suicide acceptability. Religious attendance exhibited an inverse association with suicide acceptability.

Discussion

In this nationally representative sample of U.S. adults, Veteran status did not associate with suicide acceptability, suggesting that Veterans are more similar to than different from the general population in terms of this particular suicide risk factor. Although previous research has documented associations between suicide acceptability and suicidal behaviors (Joe et al., 2007; Lee et al., 2007; Renberg, Hjelmeland, & Koposov, 2008), without an explicit measure of suicidal behavior in the GSS, it was not possible to examine such a relation among these data.

Importantly, these data suggest that Veterans *in general* did not differ from the U.S. general non-Veteran population on suicide acceptability. However, specific Veteran subpopulations have higher prevalence of suicide, suicide attempt, and suicide ideation, such as VHA Veterans (McCarthy et al., 2009), younger Veterans (Rudd, Goulding, & Bryan, 2011), and lesbian, gay, and bisexual Veterans (Blosnich, Bossarte, & Silenzio, 2012). Future research is needed to explore if high-risk subpopulations of Veterans may differ on suicide acceptability and how this construct relates with poor mental health and suicide-related outcomes among said subpopulations.

Although Veteran status did not associate with acceptability as measured in the GSS, different scales have been used to gauge attitudes about suicide (e.g., see Renberg, Hjelmeland, & Koposov, 2008 for Attitudes Towards Suicide Scale). Thus, a different measure of attitudes about suicide may have produced different results. Moreover, there is a theoretical framework that suggests some Veterans may endorse suicide acceptability through a phenomenon deemed “acquired capability” (Bryan, Clemans, & Hernandez, 2012; Bryan & Cukrowicz, 2011; Selby et al., 2010). Acquired capability is a component of the Interpersonal Theory of Suicide, which posits that both physical acclimation to pain and mental acclimation to loss of fear of death interact with perceived burdensomeness and thwarted belongingness, which together contribute to suicidal behavior (Van Orden et al., 2010). Among a sample of active duty military personnel, Bryan and Cukrowicz (2011) found that combat exposure was associated with acquired capability after adjusting for numerous covariates, such as previous suicidal behavior and number of deployments. Since Veterans may have been exposed to combat during active duty, they may also have habituation to pain and diminished fear of death. Specifically in terms of the latter, if one

has a loss of fear of death, then one also may be more likely to view suicide as acceptable. However, it is unclear how suicide acceptability as asked in the GSS relates with the concept of acquired capability. Future research is needed to explore if suicide acceptability may be related with or constitute a component of acquired capability.

Several limitations must be noted. First, the measure of Veteran status was limited in that it was an unverifiable self-report of active duty, which may also be prone to recall bias. Additionally, information about Veteran status (e.g., conflict era and combat exposure) was not ascertained in the survey. Second, although a representative sample of the U.S. population, the sample of Veterans was small and may have limited statistical power. Third, although used in previous research gauging suicide acceptability, the scenarios used second-person rather than first-person referents, which may have affected responses in terms of respondents not indicating if they, themselves, would consider suicide acceptable in the hypothetical situations.

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Table 1

Demographics and Bivariate and Multivariate Analyses of Suicide Acceptability

	Bivariate Analyses		Multivariate Analyses for 4 Items of Suicide Acceptability									
	Veteran (n=153)		Non-Veteran ^I (n=1,275)		SA1 (n=1,367)		SA2 (n=1,394)		SA3 (n=1,390)		SA4 (n=1,376)	
	Mean (SE)		Mean (SE)		AOR (95%CI)		AOR (95%CI)		AOR (95%CI)		AOR (95%CI)	
Age	59.4 (1.5) [*]		45.0 (0.5)		1.00 (0.99–1.01)		0.98 (0.97–0.99) [*]		0.98 (0.97–1.00)		1.00 (0.99–1.01)	
Years of education	13.6 (0.2) [*]		13.4 (0.1)		1.15 (1.10–1.21) [*]		1.15 (1.08–1.24) [*]		1.18 (1.10–1.27) [*]		1.18 (1.11–1.24) [*]	
Religious Attendance	3.6 (0.3)		3.5 (0.1)		0.79 (0.75–0.83) [*]		0.88 (0.81–0.95) [*]		0.88 (0.81–0.96) [*]		0.86 (0.81–0.92) [*]	
	% (95%CI)		% (95%CI)									
Veteran	-		-		1.27 (0.75–2.16)		0.88 (0.45–1.74)		0.93 (0.44–1.96)		1.01 (0.57–1.78)	
Sex												
Male	89.6 (83.5–95.7) [*]		38.6 (35.5–41.7)		1.38 (1.02–1.85) [*]		1.87 (1.24–2.83) [*]		1.53 (1.00–2.33)		1.49 (1.05–2.12) [*]	
Female ^I	10.4 (4.2–16.5) [*]		61.4 (58.3–64.4)		-		-		-		-	
Race												
White ^I	83.5 (77.3–89.8) [*]		73.4 (70.5–76.3)		-		-		-		-	
Black	10.9 (5.8–15.9)		15.7 (13.3–18.0)		0.65 (0.45–0.94) [*]		1.11 (0.57–2.19)		1.01 (0.48–2.13)		1.26 (0.76–2.10)	
Other	5.6 (1.6–9.5)		10.9 (8.8–13.0)		0.92 (0.56–1.51)		1.02 (0.52–2.02)		1.46 (0.77–2.79)		0.97 (0.53–1.78)	
Suicide Acceptability (SA1–4)												
Incurable disease (SA1)	68.9 (60.0–76.6)		60.2 (57.0–63.3)		-		-		-		-	
Bankruptcy (SA2)	9.7 (5.8–15.9)		10.3 (8.5–12.4)		-		-		-		-	
Dishonor family (SA3)	8.8 (4.9–15.2)		10.0 (8.2–12.0)		-		-		-		-	
Tired of living (SA4)	19.0 (13.1–26.7)		17.1 (14.9–19.6)		-		-		-		-	

Note: AOR=adjusted odds ratio; CI=confidence interval

¹ reference category for multivariate analyses^{*} p<.05