Noncommissioned Officers' Perspectives on Identifying, Caring for, and Referring Soldiers and Marines at Risk of Suicide

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Objective: Noncommissioned officers (NCOs) in the U.S. Army and U.S. Marine Corps were surveyed to identify their ability and willingness to identify, intervene on behalf of, and refer fellow soldiers and marines at risk of suicide.

Methods: A total of 1,184 Army soldiers and 796 marines completed surveys. Descriptive statistics were collected, and regression analyses comparing the groups were conducted.

Results: Thirty-seven percent of marines and 40% of Army soldiers reported that they could use more suicide prevention training. Compared with trained civilians, NCOs reported greater efficacy to intervene with at-risk peers, but they also reported relatively more reluctance to intervene. Close to 40% of NCOs believed that they would be held responsible for a service member's suicide if they had

asked the service member about suicidal thoughts before the suicide occurred. Chaplains were the preferred referral source, primarily because of the confidentiality they

Conclusions: Suicide prevention training for NCOs should focus on strategies for asking about suicide risk, assuring soldiers and marines that they will not be blamed for the suicides of fellow service members, and encouraging referrals. These results can help improve suicide prevention programs in the Army and Marine Corps, including whether current policies may need to be changed to optimize NCOs' ability to identify, intervene on behalf of, and refer service members at risk of suicide.

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The U.S. Army's suicide rate has more than doubled since 2001, rising to 29.7 suicides per 100,000 in 2012. The U.S. Marine Corps (USMC) has historically had the highest suicide rate of all military branches, although since 2005 the USMC suicide rate has been comparable to—or even lower than—that of the Army (24.7 per 100,000 in 2012) (1,2). Both services have a multipronged approach to preventing suicide, but both rely heavily on programs that encourage and train soldiers and marines to take care of other service members by acting as gatekeepers (1). Gatekeepers are "individuals in a community who have face-toface contact with large numbers of community members as part of their usual routine" and who are trained to "identify persons at risk of suicide and refer them to treatment or supporting services as appropriate" (3). In both the Army and the USMC, noncommissioned officers (NCOs) are expected to serve as gatekeepers.

To train NCOs as gatekeepers, Army leaders are required to take Ask, Care, Escort (ACE) training for leaders annually. ACE covers suicide risk identification and early intervention skills, including how to refer subordinates to helping agencies and how to create command climates that reduce stigma and encourage help-seeking behavior. Although there are no published evaluations of ACE, it is listed in the best-practices registry of the Suicide Prevention Resource Center. The USMC's "Never Leave a Marine Behind" (NLMB) is an inperson course in gatekeeper training that marines are required to complete annually. NLMB training uses the RACE mnemonic: Recognize the warning signs associated with suicide; Ask about thoughts of suicide; Care for marines at risk of suicide; and Escort marines at risk of suicide to the appropriate professionals.

Although there is minimal research on ACE or NLMB specifically and none on gatekeeping in U.S. military populations, some studies have examined similar gatekeeper training programs in civilian settings (4-6). Gatekeeper training helps to increase knowledge about suicide warning signs and appropriate intervention behavior (7). It may also change beliefs and attitudes about suicide prevention, reduce gatekeepers' reluctance to intervene, and increase gatekeepers' confidence in their ability to intervene (self-efficacy) (7). There is little evidence to suggest that these benefits translate to improved intervention behavior.

Given the reliance in both service branches on using NCOs as gatekeepers, it is important to understand what might help or hinder NCOs in implementing their gatekeeper training. We examined the attitudes and perspectives of NCOs in the Army and the USMC; for those in the Army, we compared results by operational specialty, given that NCOs with various types of job training and responsibilities (for example, a health care specialist—commonly known as a "medic"—and infantryman) may have different views of suicide prevention and gatekeeping roles.

METHODS

Sample

We recruited our sample from leadership training courses for soldiers ranked E-4 through E-7. According to recent estimates, there are nearly 330,803 members of the activeduty Army and 74,043 active-duty marines with those ranks, and attendance at the leadership training courses is required for advancement (8). We sought to obtain a sample that represented the perspectives of a broad array of Army specialties and created subsamples that would allow us to compare the three major Army force divisions (maneuver and fires division [MFD]; operations and support division [OSD]; and force sustainment division [FSD], not including health care specialists) and health care specialists (members of the FSD with a military occupation specialty of 68W). Every soldier who took a leadership training course between August 1 and October 31, 2012, had a nonzero probability of being sampled. We selected four courses during this period; if a course had fewer than 200 soldiers in each division or fewer than 200 health care specialists, we repeated the process until finding 200 members of each subsample who satisfied all of our criteria. As a result, we made a total of seven visits to six different installations in the continental United States.

Similarly, we administered classroom-based surveys to NCOs in the USMC attending leadership training courses in the continental United States during the same period. In the USMC, all NCOs are required to attend these courses to advance in rank; however, there is a distance learning option for E5s and E6s. We sampled courses that would be attended by sergeants (E5), staff sergeants (E6), and gunnery sergeants (E7) at NCO training academies at three USMC bases.

Procedures

In both the Army and the USMC, course leaders introduced researchers to NCOs in designated classrooms. Verbal consent stated that participation in the study was voluntary and anonymous. RAND's Human Subjects Protection Committee and a Department of Defense Institutional Review Board approved all procedures.

Survey Instrument

The survey focused on the key domains outlined in Burnette and colleagues' (7) model of gatekeeper behavior. In addition

to providing demographic information and information on their military backgrounds, respondents were asked questions about gatekeeper training; gatekeeper reluctance (nine items), efficacy (seven items), and access to resources (three items) (6); perceived stigma related to seeking mental health services to address suicidal thoughts (seven items) (9); beliefs about whether they would be blamed or held responsible if a fellow soldier or marine died by suicide (two items); likelihood of using various gatekeeper intervention skills (nine items) (4); preferences for use of resources and the factors that influence their preferences (16 items); experiences talking with fellow soldiers and marines about suicide (two items adapted from four items from a study by Vieland and others [10]); having personally known anyone who had died by suicide (one item); and past intervention behaviors when they "suspected or knew that a service member might be at risk for suicide" (13 items) (4,11).

Analysis

We present descriptive characteristics of the sample across the domains listed above. For the Army, we examined differences among divisions and by years of military service by using logistic (binary variables), multinomial logistic (categorical variables), linear (continuous variables), and negative binomial (count variables) regression models. In all comparisons, the OSD was the reference group.

RESULTS

In both samples, most respondents who were handed a survey accepted and completed it, yielding a nearly perfect response rate. The Army sample consisted of 1,184 respondents. Thirtythree (3%) respondents did not provide information on their division, 42% were from the MFD, 25% were from the OSD, 12% were from the FSD (not including health care specialists), and 17% were health care specialists. As shown in Table 1, relative to the OSD, males in the MFD were overrepresented compared with females (odds ratio [OR]=.23, 95% confidence interval [CI]=.12-.46), but males in the FSD were underrepresented compared with females (OR=4.07, CI=2.40-6.92). Members of the FSD and health care specialists were older compared with members of the other divisions. Members of the FSD had higher levels of education and also had a higher proportion of members from racial-ethnic minority groups (non-Hispanic African Americans and Hispanics) compared with members of other divisions (data available upon request).

The USMC sample consisted of 796 respondents. Ninety percent were male, 54% were non-Hispanic white, and most were between 26 and 33 years old. Fifty-six percent had completed some college or an associate's degree.

The military background of the samples is shown in Table 2. In the Army, 93% of respondents (although fewer members of FSD [OR=.06, CI=.03-.15]) had deployed at least once in support of Operations Iraqi Freedom, Enduring Freedom, or New Dawn or in support of another contingency; in the USMC, 88% of respondents had deployed at least once.

Training in Suicide Prevention

Sixty-four percent (N=754) of Army and 74% (N=586) of USMC NCOs reported having received between one and ten hours of suicide prevention training within the past year, while 34% (N=406) of NCOs in the Army and 24% (N=192) of NCOs in the USMC had received 11 or more hours of training. In the Army, fewer soldiers in the MFD versus OSD reported receiving 11 or more hours of training (OR=.62, CI=.46-.84). Forty percent (N=476) of Army soldiers and 37% (N=298) of marines felt that they could use more suicide prevention training; respondents from the OSD were less likely than those from other divisions to want more training.

Respondents also reported the topics covered in their suicide prevention training. Almost all reported being trained to recognize suicide warning

signs (Army: 95%, N=1,130; USMC: 96%, N=761). Slightly fewer reported that their training covered suicide risk factors (Army: 92%, N=1,086; USMC: 87%, N=692), resources for referring suicidal service members (Army: 88%, N=1,047; USMC: 90%, N=713), listening skills (Army: 82%, N=975; USMC: 78%, N=624), and how to ask someone about his or her suicidal thoughts (Army: 82%, N=972; USMC: 78%, N=618).

Fewer still reported that their training covered how to refer a suicidal person for treatment (Army: 73%, N=859; USMC: 70%, N=558) and how to persuade someone to seek help for suicidal thoughts (Army: 66%, N=782; USMC: 57%, N=455). Only 38% (N=446) of Army soldiers and 30% (N=238) of marines reported that their training covered how to provide behavioral treatment for someone with suicidal thoughts; in the Army this was reported less often by health care specialists (29%, N=59) than by members of OSD (43%, N=130; OR=.53, CI=.36-.78). Onethird of respondents in the MFD (N=174) and the OSD (N=99) and around half of respondents in the FSD (N=73) and of health care specialists (N=101) reported using skills from their suicide prevention training in the past year, which was also endorsed by 35% (N=281) of marines.

Attitudes and Experiences With Suicide

Sixty-two percent (N=734) of soldiers across all Army divisions and 60% (N=482) of marines reported knowing

TABLE 1. Demographic characteristics of noncommissioned officers in the Army and United States Marine Corps (USMC)

	Army ^a											
	Total (N=1,184)		MFD (N=502)		OSD (N=300)		FSD (N=145)		Health care specialists (N=204)		USMC (N=796)	
Characteristic	N	%	N	%	N	%	N	%	N	%	N	%
Sex												
Female	114	10	12	2	28	9	43	30	25	12	52	7
Male	1,045	88	486	97	260	87	98	68	176	86	720	90
Age												
18-21	2	0	2	0	0	_	0	_	0	_	1	0
22-25	83	7	31	6	37	12	8	6	6	3	136	17
26-29	338	29	139	28	95	32	33	23	58	28	253	32
30-33	391	33	176	35	95	32	43	30	66	32	219	28
34-37	184	16	86	17	34	11	32	22	28	14	121	15
≥38	159	13	63	13	26	9	26	18	42	21	40	5
Race-ethnicity												
White	682	58	329	66	173	58	56	39	115	56	428	54
Black	188	16	65	13	39	13	45	31	33	16	85	11
Hispanic	162	14	55	11	40	13	24	17	34	17	182	23
Other	117	10	46	9	32	11	17	12	17	8	69	9
Education												
High school diploma or GED	144	12	7	17	87	13	40	2	3	3	260	33
Some college or associate's degree	824	70	17	69	348	71	213	68	98	73	449	56
Bachelor's degree	132	11	3	8	42	9	27	20	29	15	46	6
Graduate degree	29	2	3	2	8	1	4	7	10	2	8	1

^a MFD, maneuver and fires division; OSD, operations support division; FSD, force sustainment division, excluding health care specialists (military occupation specialty of 68W). Thirty-three soldiers did not report a division

someone who died by suicide, and of those, 483 soldiers (66%) and 306 marines (63%) reported that the individual was in the military. Seventy-three percent (N=869) of soldiers and 70% (N=555) of marines reported that since their basic active service date (BASD), they had suspected that a service member was considering suicide, and this proportion did not differ by their length of service. Fortyeight percent (N=564) of soldiers and 40% (N=317) of marines indicated that since their BASD, a service member had told them that he or she was considering suicide.

Reluctance to Intervene

Respondents rated their agreement with nine intervention statements regarding their willingness to intervene with atrisk service members. Scores ranged from 1, low reluctance, to 7, high reluctance. Soldiers and marines' average score was the same (mean±SD=3.4±1.1). Army NCOs in the FSD reported less reluctance compared with those in the OSD $(\beta=-.28, p=.01).$

Efficacy

Participants rated their agreement with seven intervention statements regarding their ability to intervene with atrisk service members. Scores ranged from 1, low efficacy, to 7, high efficacy. Respondents' average efficacy score was

TABLE 2. Military service characteristics of noncommissioned officers in the Army and U.S. Marine Corps (USMC)

		Army ^a										
	Total (N=1,184)		MFD (N=502)		OSD (N=300)		FSD (N=145)		Health care specialists (N=204)		USMC (N=796)	
Characteristic	N	%	N	%	N	%	N	%	N	%	N	%
Component												
Active duty	1,117	94	476	95	293	98	133	92	187	92	781	98
Reserves	21	2	5	1	5	2	4	3	7	3	15	2
National Guard	40	3	21	4	2	1	8	6	8	4	na	na
Years of service												
0-4	18	2	10	2	5	2	1	1	0	_	17	2
5-8	381	32	138	27	129	43	46	32	63	31	290	36
9-12	498	42	225	45	112	37	55	38	92	45	269	34
≥13	282	24	128	25	54	18	43	30	49	24	219	28
Rank												
E7	303	26	213	42	34	11	22	15	29	14	195	24
E6	604	51	233	46	175	58	75	52	107	52	281	35
E5	271	23	55	11	91	30	48	33	68	33	318	40
E4	1	0	1	0	0	_	0	_	0	_	0	_
Has deployed	1,105	93	493	98	288	96	107	74	191	94	703	88

^a MFD, maneuver and fires division; OSD, operations support division; FSD, force sustainment division, excluding health care specialists (military occupation specialty of 68W). Thirty-three soldiers did not report a division.

the same for both Army soldiers and marines (mean=5.2 \pm 1.0). Among Army soldiers, those in the MFD (β =-.16, p=.03) and health care specialists (β =-.17, p=.05) reported significantly less efficacy compared with those in the OSD.

Stigma

Respondents indicated how much they agreed with seven statements related to the stigma attached to accessing mental health care, with 1 indicating strongly disagree; 2, somewhat disagree; 3, somewhat agree; and 4, strongly agree (Table 3). Fifty percent or more of NCOs in the Army and the USMC reported that people who seek

TABLE 3. Perceived stigma among NCOs regarding service members who seek mental health treatment for suicidal thoughts^a

	Arn (N=1,	,	USMC ^b (N=796)	
Item	N	%	N	%
It would be embarrassing for him or her	616	52	503	63
It would harm the person's reputation	589	50	453	57
It would not be kept confidential	584	49	431	54
The person's peers might treat him or her differently	846	71	596	75
The person's peers would blame him or her for the problem	360	30	257	32
The person would be seen as weak	635	54	468	59
People important to the person would think less of them	396	32	260	33

^a Noncommissioned officers (NCOs) reported responses of "somewhat agree" or "strongly agree" to each survey item.

mental health treatment might be treated differently by their peers, be seen as weak, feel embarrassed, and believe that seeking treatment would harm their reputations and not be kept confidential.

Perceived Responsibility

Thirty-six percent of NCOs in both the Army (N=421) and the USMC (N=289) agreed with the statement that they would be held responsible if they had talked to a service member about suicide before the person died by suicide. Slightly more Army NCOs compared with marine NCOs agreed that they would be held responsible if a soldier or marine under their leadership died by suicide, re-

gardless of whether they spoke to that person about suicide (40%, N=472, and 34%, N=273, respectively). There were no differences in perceived responsibility across the Army divisions.

Perceived Access to Suicide Prevention Resources

Respondents overwhelmingly agreed that they had easy access to resources for learning about suicide (Army: 90%, N=1,065; USMC: 93%, N=743), that there was an adequate number of resources or people for referring service members thinking about suicide (Army: N=1,074, 91%; USMC: N=735, 92%), and that they could identify where to refer another service member for care (Army: 90%, N=1,071; USMC: 93%, N=742). There was no difference in perceived access to resources across Army divisions.

Intervention Behavior

Respondents indicated how likely they would be to perform nine intervention actions "if a service member shows signs that they might be thinking about suicide," with 1 indicating not at all likely; 2, unlikely; 3, likely; and, 4, very likely. Ninety percent or more of NCOs endorsed most actions as likely or very likely (Table 4). The exceptions were disabling a person's weapon (endorsed as likely or very likely by 85% of Army NCOs and 81% of USMC NCOs) and calling a crisis line (77% of both Army and USMC NCOs). Compared with soldiers in the OSD, a slightly greater proportion of soldiers in the MFD reported that they would likely encourage the person to get help (OR=2.40, CI=1.16–4.97). A slightly lower proportion of soldiers in the OSD compared with other divisions reported that they would call a crisis line (MFD: OR=1.51, CI=1.09–2.09; FSD:

^b U.S. Marine Corps

OR=2.16, CI=1.31-3.57; and health care specialists: OR=1.81, CI=1.18-2.78).

Respondents were presented with 15 referral options (including an "other" write-in option) and asked to rank the top three resources to which they would refer someone they "thought was suicidal." Across all divisions in the Army and also in the USMC, chaplains were the most preferred referral source. In the Army, behavioral health clinics located on post were ranked second. Military OneSource, a confidential Department of Defense-funded program providing comprehensive information on every aspect of military life, was ranked third by soldiers in the MFD and the OSD. It was ranked fourth, behind emergency rooms and hospitals, by soldiers in the FSD and health care specialists. In the USMC, Military OneSource was ranked second and a suicide hotline or crisis line was ranked third.

When presented with six reasons (including an "other" write-in option) for their choice of most preferred referral source, NCOs in both the Army and USMC ranked confidentiality as the primary reason, followed by quality of care, convenience, length of time to get an appointment, and "it is what I have been told to do."

Respondents reported how often they had performed specific actions when they "suspected or knew that a service member might be at risk for suicide" in the past. The mean ratings (0, never; 1, hardly ever; 2, most of the time; and 3, always) for each option are presented in Table 5. Notably, asking about suicidal thoughts, a critical component of gatekeeper training, was reported to have been used most of the time but not always (Army, 1.96±.91; USMC, 1.93±.98). Across Army divisions, the FSD reported escorting a service member to a chaplain (β =-.33, p=.01) or talking to a supervisor about the person (β =-.25, p=.04) less frequently than the OSD, whereas the FSD (β =.21, p=.03) and health care specialists (β =-.19, p=.03) were significantly more likely to spend time listening to the service member. In both the Army and the USMC, adverse behaviors, such as keeping a soldier's suicide risk a secret or leaving a person alone until he or she feels better, were used least frequently.

DISCUSSION

Most NCOs reported receiving several hours of suicide prevention training in the past year, but 40% of Army NCOs and 37% of USMC NCOs believed that they could use additional training. This suggests that a considerable proportion of NCOs may not feel adequately prepared to serve as gatekeepers for their fellow soldiers. The results suggest that suicide prevention preparedness could be improved by providing additional training in several content areas. For example, NCOs may need more training on how to ask fellow service members if they feel suicidal and how to refer or persuade at-risk soldiers to seek help. Training that incorporates didactic and interactive exercises (for example, role playing) can help NCOs master listening skills, risk assessment skills, and strategies for intervening and referring their

TABLE 4. Interventions that NCOs were likely to use for service members showing signs of thinking about suicidea

	Arm (N=1,1		USMC ^b (N=796)	
Item	N	%	N	%
Raise the question of suicide with the person	1,063	90	721	91
Want to get more information from the person about whether they have a plan to commit suicide	1,064	90	712	89
Encourage the person to get help	1,137	96	770	97
Call a crisis line ^c	909	77	613	77
Take the person to get help ^d	1,100	93	741	93
Encourage the person to talk about their problems and suicidal thoughts	1,107	93	745	94
Tell a supervisor in the person's chain of command	1,070	90	699	88
Take weapons away from the person	1,074	91	716	90
Disable the person's weapon	1,006	85	647	81

^a Noncommissioned officers (NCOs) reported being "likely" or "very likely" to use the intervention.

colleagues. Although listening to at-risk soldiers and encouraging them to seek help were the most frequent gatekeeper behaviors, the NCOs reported receiving less training on how to listen to and intervene with at-risk peers than on recognizing risk factors and warning signs.

NCOs reported greater efficacy in intervening with at-risk individuals compared with trained civilians. The mean efficacy score among the NCOs (5.2 ± 1.0) was higher than scores for other populations, including scores for college students serving as resident advisors (RAs) (3.9±.6) (4) and school staff (4.6 ± 1.1) (6) after the RAs and staff received training in suicide prevention. Most NCOs reported having access to the resources they need to intervene with at-risk individuals. When actually confronted with a fellow service member in crisis, soldiers and marines spent time listening to the service member, providing the service member with resources, and encouraging him or her to seek help. Although these results indicate that many NCOs are effective gatekeepers, a reluctance to intervene may hinder some behaviors. NCOs reported higher levels of reluctance to intervene compared with their trained civilian counterparts. The mean reluctance score among the NCOs (3.4±1.1) was higher than scores for other samples, including those of RAs $(2.3\pm.7)$ after the RAs received training in suicide prevention (4).

This increased reluctance to intervene could be due, in part, to beliefs about repercussions from accessing behavioral health care. It could also be due to a belief that NCOs who ask about suicidal thoughts could later be held responsible if the at-risk service member dies by suicide. Suicide prevention training programs and policies should be reviewed and communicated to ensure that perceptions of personal responsibility do not hinder gatekeeping behavior. One strategy may be to stress that NCOs should be

^b U.S. Marine Corps

^c Examples are 911 and Military OneSource

^d Sources of help include a hospital, mental health center, counselor, or

TABLE 5. Gatekeeper behaviors used by noncommissioned officers in the Army and USMC for service members at risk of suicide^a

	Army ^b											
	Total (N=1,184)		MFD (N=502)		OSD (N=300)		FSD (N=145)		Health care specialists (N=204)		USMC (N=796)	
Item	М	SD	М	SD	М	SD	М	SD	М	SD	М	SD
Spent time listening to them	2.46	.82	2.43	.81	2.37	.89	2.58	.76	2.56	.77	2.51	.80
Convinced them to seek help	2.18	.89	2.14	.92	2.17	.91	2.25	.89	2.25	.79	2.16	.96
Provided them with information, for example, about how to get help for suicidal thoughts	2.07	.97	2.05	.99	2.06	.96	2.08	.93	2.11	.95	2.11	.98
Talked to a supervisor about the person	1.99	1.02	2.03	1.01	2.07	1.01	1.81	1.02	1.91	1.06	1.97	1.08
Asked the person about suicidal thoughts	1.96	.91	1.90	.93	1.99	.94	1.96	.90	2.05	.84	1.93	.98
Reported the information to the person's chain of command	1.88	1.07	1.91	1.09	1.96	1.03	1.74	1.11	1.79	1.06	1.88	1.10
Escorted them to a counselor or other resource	1.84	1.06	1.83	1.07	1.78	1.08	1.83	1.11	1.96	.99	1.86	1.12
Escorted them to a chaplain	1.74	1.07	1.79	1.08	1.84	1.03	1.51	1.09	1.66	1.08	1.77	1.15
Got advice from a peer	1.69	1.03	1.69	.99	1.74	1.09	1.66	1.00	1.64	1.07	1.73	1.06
Notified referral resources, for example, a psychologist	1.56	1.10	1.51	1.10	1.52	1.09	1.70	1.14	1.64	1.05	1.45	1.11
Other	1.31	1.23	1.00	1.13	1.64	1.28	1.25	1.50	1.20	1.30	1.20	1.26
Kept it a secret	.65	1.01	.66	1.01	.64	1.00	.55	.89	.70	1.10	.62	.98
Left the person alone until he or she felt better	.29	.62	.30	.62	.33	.71	.28	.59	.25	.51	.29	.62

^a Possible scores range from 0 to 3, with 0 indicating never; 1, hardly ever; 2, most of the time; and 3, always. USMC, U.S. Marine Corps

responsible to fellow comrades but are not responsible for ultimate outcomes. Fears about being held responsible can lead to two potential adverse consequences: one, NCOs may increase referrals inordinately, thereby reducing availability of behavioral health care providers for the minority of individuals that truly need help; and two, service members may cease voluntarily sharing information with an NCO if they fear that mentioning even the smallest problem will result in an automatic referral.

NCOs selected chaplains as their preferred referral resource for at-risk service members, primarily because of the confidentiality chaplains provide. Training programs and policies regarding suicide prevention activities by both NCOs and chaplains may need to be adjusted to reflect this preference. If chaplains are relied upon heavily to care for suicidal soldiers, they should receive the training and preparation necessary to provide this care. Behavioral health providers, who cannot guarantee the same level of confidentiality as chaplains (12), were the second-ranked referral resource. To increase comfort with referring to a behavioral health provider, it may be necessary to either change people's perceptions about the roles and the efficacy of these resources for suicide prevention or change policies to allow more confidential access.

NCO responses about gatekeeper attitudes, perceptions, and behaviors were largely consistent across Army divisions, despite demographic differences among the divisions. However, several important differences emerged, particularly with

respect to health care specialists. Heath care specialists were the least likely to report that their training included guidance on how to provide behavioral treatment for someone with suicidal thoughts, which may be attributed to their interpreting "behavioral health care" more formally than soldiers in other divisions. Health care specialists also reported lower levels of efficacy compared with soldiers in the OSD and the FSD. Targeted suicide prevention training for health care specialists may increase their confidence in encouraging fellow soldiers to seek help. This could be particularly important given that health care specialists may be optimally positioned to identify and refer soldiers at risk of suicide.

The study had several limitations. To minimize interruption of training activities, we designed the survey to be very brief; it was impossible to measure every construct that might be related to gatekeeping. Our data collection strategy targeted primarily active-duty soldiers and marines, so members of the reserves were not accurately represented. Also, the sample was selected partly on the basis of convenience; we recruited from the training academies that were offering courses during our data collection time frame. These sampling choices may limit the generalizability of our findings. We also collected only selfreported data, which may be biased or inaccurate. Many of the measures we collected were not developed specifically for service members; there is a great need for development of measures and testing in gatekeeper studies, particularly in military populations. Furthermore, our measure of gatekeeper training was purposely generic, and future studies seeking to

b MFD, maneuver and fires division; OSD, operations support division; FSD, force sustainment division, excluding health care specialists (military occupation specialty of 68W)

understand factors that best predict gatekeeping behavior should develop more thorough, nuanced measures. Finally, our study did not identify which training programs, behaviors, attitudes, and characteristics were related to effective suicide prevention. A different study design, such as an experimental design, would be needed to answer such questions.

CONCLUSIONS

As the Army and the USMC continue to work to prevent suicides, NCOs will play a critical role. Findings from this study on how NCOs are currently equipped to serve in this capacity can be used by the military to improve suicide prevention.

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REFERENCES

1. Ramchand RN, Acosta J, Burns RM, et al: The War Within: Preventing Suicide in the US Military. Santa Monica, Calif, RAND, 2011

- 2. Smolenski DJ, Reger MA, Alexander CL, et al: Department of Defense Suicide Event Report: Calendar Year 2012 Annual Report. Washington, DC, Department of Defense, 2013
- 3. Office of the Surgeon General and National Action Alliance for Suicide Prevention: 2012 National Strategy for Suicide Prevention: Goals and Objectives for Action. Washington, DC, US Department of Health and Human Services, 2012
- 4. Tompkins TL, Witt J: The short-term effectiveness of a suicide prevention gatekeeper training program in a college setting with residence life advisers. Journal of Primary Prevention 30:131-149,
- 5. Tompkins TL, Witt J, Abraibesh N: Does a gatekeeper suicide prevention program work in a school setting? Evaluating training outcome and moderators of effectiveness. Suicide and Life-Threatening Behavior 40:506-515, 2010
- 6. Wyman PA, Brown CH, Inman J, et al: Randomized trial of a gatekeeper program for suicide prevention: 1-year impact on secondary school staff. Journal of Consulting and Clinical Psychology 76:104-115, 2008
- 7. Burnette C, Ramchand R, Ayer L: Gatekeeper Training for Suicide Prevention: A Theoretical Model and Review of the Empirical Literature. RR-653-OSD. Santa Monica, Calif, RAND, 2015
- 8. 2012 Demographics: Profile of the Military Community. Washington, DC, Office of the Deputy Under Secretary of Defense. Available at download.militaryonesource.mil/12038/MOS/Reports/2012_ Demographics_Report.pdf
- 9. Britt TW, Greene-Shortridge TM, Brink S, et al: Perceived stigma and barriers to care for psychological treatment: implications for reactions to stressors in different contexts. Journal of Social and Clinical Psychology 27:317-335, 2008
- 10. Vieland V, Whittle B, Garland A, et al: The impact of curriculumbased suicide prevention programs for teenagers: an 18-month follow-up. Journal of the American Academy of Child and Adolescent Psychiatry 30:811-815, 1991
- 11. Shaffer D, Garland A, Vieland V, et al: The impact of curriculumbased suicide prevention programs for teenagers. Journal of the American Academy of Child and Adolescent Psychiatry 30:588-596,
- 12. Acosta JD, Becker A, Cerully JL, et al: Mental Health Stigma in the Military. Santa Monica, Calif, RAND, 2014