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Time to Suicide and Suicide Attempt among Army Enlisted Soldiers’ First Year of Service

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\textbf{ABSTRACT}

A soldier’s first year of military service is a critical period of transition where the risk of suicidal behavior may be increased. This study described time to initial suicide attempts and death by suicide among U.S. Army soldiers in their first year of service. Between Fiscal Year (FY) 2013 and FY 2016, a retrospective cohort (n = 407,401) included 376 soldiers who attempted suicide and 29 soldiers who died by suicide in their first service year. Suicide attempt and suicide cases were identified through the Department of Defense Suicide Event Report (DoDSER). The median time to event was 6.4 months for soldiers who attempted suicide and 9 months for soldiers who died by suicide. Approximately 10% of the suicide attempts occurred during the first month, and most suicides (97%) occurred after the first three months of the study period. These results highlight an opportunity for early behavioral healthcare intervention among new soldiers. The implementation of a tailored means reduction strategy for new soldiers after the initial training period may be beneficial. Future research, including a longer follow-up period, is needed to elucidate further the characteristics and unique stressors among new soldiers and how these stressors impact suicidal behavior within this population.

\textbf{KEYWORDS} Suicide; suicide attempt; military; service member; new soldier

Suicidal behavior is a significant public health concern within the U.S. Army (Army). Among the Regular Army, the suicide rate began to increase in 2004 and surpassed the age and sex-adjusted U.S. general population rate in 2008, with a peak in 2012 (Nock et al., 2013; Ursano et al., 2015a). From 2013 to 2017, the rate began to decline. However, recent surveillance reports suggest the 2018 Regular Army suicide rate increased to a point which may be similar to the 2012 peak rate (Department of Defense, 2018). While the bulk of current research on suicidal behavior has focused on Regular Army soldiers during the 2004–2009 time period, Army National Guard and Army Reserve soldiers have recently received more attention (Naifeh et al., 2019). In its annual suicide report for calendar year (CY) 2018, the Department of Defense reported a statistical increase in the suicide rate for the Army National Guard and a steady rate for the Army Reserve between CY 2013 and CY 2018 (Department of Defense, 2018).

A prior suicide attempt is one of the strongest predictors of current suicidality (Joiner et al., 2005). Additionally, being of a younger age, younger age at first suicide attempt, experiencing relief from a “terrible state of mind” after the attempt, and not being admitted to a hospital or treatment program may increase the likelihood of subsequent suicide attempts (Bryan et al., 2016). Behavioral health screening of Army recruits prior to accession relies on self-reported medical history and has proven challenging, as described in a 2017 report: United States Military Entrance Processing Command (USMEPCOM) (United States Congress House Committee on Armed Services, 2015). “USMEPCOM medical is currently unable to access objective historical data about an applicant’s medical, behavioral, law enforcement or school encounters, or pharmaceutical history as this information is limited to what is voluntarily disclosed by candidates” (United States Congress House Committee on Armed Services, 2015, p. 15). Adequately assessing an Army applicant’s behavioral health status prior to accession is difficult; currently, only when a recruit’s behavioral health background is...
determined to be medically significant is background information used in the assessment of the recruit (United States Congress House Committee on Armed Services, 2015).

Previous research by the Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS) has identified the first year of military service as a critical point when soldiers are at heightened risk of suicide attempt or suicide, highlighting the opportunity for behavioral healthcare intervention during this time period (Ursano et al., 2015b, 2016). Data from 2004–2009 indicate suicide attempts were more likely among younger, female, and enlisted soldiers in the first 2 years of service, with a peak at approximately 2 months of service (Ursano et al., 2018). Additionally, the likelihood of a suicide attempt by enlisted soldiers was greatest when a behavioral health diagnosis was present in the previous month (Ursano et al., 2015b). A follow-up study investigating suicide attempt cases without a prior mental health diagnosis found those soldiers were six times more likely to attempt suicide within the first year of service compared to those who had served for 5 to 10 years, and the odds decreased with each subsequent year of service (Ursano et al., 2018).

Current military suicidal behavior research from the Army STARRS is primarily focused on two time periods: 2004–2009 and 2011–2012. The Army STARRS New Soldier Study (NSS) helps to better understand the population of soldiers new to the Army; the primary focus is on soldiers who attempt suicide and express suicidal ideation. The first year of service includes multiple transitions and changes for a new soldier (e.g., moving away from family and a known support system, transitioning out of basic training, or moving to a first duty station, etc.). Better understanding the time period in which soldiers die by suicide or attempt suicide during the first year is critical to developing strategies for prevention initiatives within this population. The purpose of this paper is to describe the demographic characteristics and length of time between a soldier’s first training course date and subsequent suicidal behavior (i.e., suicide attempt or suicide) for first-year enlisted soldiers across the three Army components.

Methods

Study population

This study is related to a large retrospective, longitudinal, parent study and includes Regular Army, Army National Guard, and Army Reserve enlisted soldiers (Schaughency et al., 2020). Soldiers were included if their Basic Combat Training (BCT) or One Station Unit Training (OSUT) began between 01 October 2012 and 30 September 2016 (i.e., FY 2013–FY 2016) as recorded by the Army Training Requirements and Resource System (ATRRS). BCT and OSUT are the introductory training programs all new enlisted Army soldiers must complete before attending Advanced Individual Training (AIT) for skills development or transferring to their first duty station, respectively. ATRRS is an online database designed to assist with coordinating training session information for Army personnel.

The Department of Defense Suicide Event Report (DoDSER, Defense Suicide Prevention Office (DSPO), 2015) was used to identify soldiers who attempted suicide or who died by suicide during their first year of enlisted service. During the study time period, DoDSERs were required to be submitted for suicides within 60 days of confirmation from the Armed Forces Medical Examiner System (AFMES) and within 30 days for any suicide attempts resulting in hospitalization or evacuation from a military theater of operations, per Department of Defense Instruction (DoDI) 6490.16 (Department of Defense, 2017). Soldiers with a documented history of prior military service, those in non-enlisted military pay grades (i.e., officers, warrant officers, and cadets), Department of the Army civilians, and contractors were excluded from this analysis. Further details on the study population selection may be found elsewhere (Schaughency et al., 2020).

Descriptive Analysis

For each soldier, the study period was defined from the start date of the first ATRRS recorded class (Day 0) to the end date of the first year (Day 365). A case was defined as a suicide or initial suicide attempt, as documented by the DoDSER. If a soldier experienced an attempt and a suicide during the first year, the soldier was included as a suicide. Additionally, if a soldier had multiple documented attempts, only the first attempt date was used to calculate the time to initial suicide attempt. Descriptive statistics were calculated for demographic and military characteristics (component, sex, pay grade, and age group), time to each event, and the method of suicidal event (e.g., firearm, drugs, etc.). All analyses were conducted using SAS statistical software (version 9.4; SAS Institute, 2014).

Results

Among the cohort of 407,401 new enlisted soldiers, there were 376 soldiers with at least one suicide
attempt and 29 soldiers who died by suicide during the study period (Table 1). No soldiers who died by suicide had a documented prior suicide attempt within their military service. Soldiers in the overall cohort were typically Regular Army (58%), male (80%), 17–24 years of age (87%), and in the E1–E2 pay grade (Private rank) (74%) (Table 1). There were no demographic differences between the overall cohort and those with no DoDSER-documented suicidal behavior (Table 1). Most soldiers with at least one suicide attempt were Regular Army (84%), male (70%), 17–24 years of age (95%), and in the E1–E2 pay grade (87%) (Table 1).

Most (97%) soldiers who died by suicide did so after the first three months of service and 58% occurred at or after eight months of service (Figure 1). The proportion of soldiers who attempted suicide were more evenly distributed throughout the year compared to those who died by suicide. However, the highest proportions (10-13%) occurred in the first month, sixth month, eleventh month, and twelfth month (Figure 1). This finding is similar to research by Ursano et al. (2016). The demographic characteristics of soldiers who died by suicide were similar to those of soldiers who attempted suicide, with two exceptions. The suicide group included a greater proportion of 25–35 year-olds than the suicide attempt group (17% vs. 5%), and the suicide attempt group included a greater proportion of females than the suicide group (30% vs. 14%) (Table 1). Among the 376 soldiers who attempted suicide, 369 (98%) attempted suicide once during the study period. Seven (7)

Table 1. Demographic and military characteristics of enlisted army soldiers in the first year of service between FY 2013 and FY 2016 (N = 407,401).

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>No Suicidal Behavior</th>
<th>Suicide</th>
<th>Overall</th>
<th>One Attempt</th>
<th>&gt;1 Attempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>406,996</td>
<td>29</td>
<td>376</td>
<td>369</td>
<td>7</td>
</tr>
<tr>
<td>Component</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regular Army</td>
<td>235,743 (58%)</td>
<td>23 (79)</td>
<td>317 (84)</td>
<td>313 (85)</td>
<td>4 (57)</td>
</tr>
<tr>
<td>National Guard</td>
<td>124,235 (31%)</td>
<td>2 (7)</td>
<td>40 (11)</td>
<td>38 (10)</td>
<td>2 (29)</td>
</tr>
<tr>
<td>Reserve</td>
<td>47,018 (12%)</td>
<td>4 (14)</td>
<td>19 (5)</td>
<td>18 (5)</td>
<td>1 (14)</td>
</tr>
<tr>
<td>Pay Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E1</td>
<td>158,652 (39%)</td>
<td>15 (52)</td>
<td>194 (52)</td>
<td>192 (52)</td>
<td>2 (29)</td>
</tr>
<tr>
<td>E2</td>
<td>141,641 (35%)</td>
<td>13 (45)</td>
<td>133 (35)</td>
<td>129 (35)</td>
<td>4 (57)</td>
</tr>
<tr>
<td>E3</td>
<td>76,541 (19%)</td>
<td>1 (3)</td>
<td>39 (10)</td>
<td>38 (10)</td>
<td>1 (14)</td>
</tr>
<tr>
<td>E4</td>
<td>29,491 (7)</td>
<td>–</td>
<td>10 (3)</td>
<td>10 (3)</td>
<td>–</td>
</tr>
<tr>
<td>E5+</td>
<td>671 (&lt;1)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>327,266 (80%)</td>
<td>25 (86)</td>
<td>262 (70)</td>
<td>258 (71)</td>
<td>4 (57)</td>
</tr>
<tr>
<td>Female</td>
<td>79,730 (20%)</td>
<td>4 (14)</td>
<td>114 (30)</td>
<td>111 (29)</td>
<td>3 (43)</td>
</tr>
<tr>
<td>Age Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17–24</td>
<td>354,005 (87%)</td>
<td>24 (83)</td>
<td>358 (95)</td>
<td>351 (95)</td>
<td>7 (100)</td>
</tr>
<tr>
<td>25–34</td>
<td>51,541 (13%)</td>
<td>5 (17)</td>
<td>17 (5)</td>
<td>17 (5)</td>
<td>–</td>
</tr>
<tr>
<td>35–42</td>
<td>1,416 (&lt;1)</td>
<td>–</td>
<td>1 (&lt;1)</td>
<td>1 (&lt;1)</td>
<td>–</td>
</tr>
<tr>
<td>43–64</td>
<td>26 (&lt;1)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>&lt; 17 or &gt; 64</td>
<td>8 (&lt;1)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

Figure 1. Monthly Proportion of Suicide Attempts and Suicides Among Enlisted Army Soldiers in the First Year of Service Between FY 2013 and FY 2016 (N = 405).
soldiers attempted suicide more than once; of these, two soldiers attempted suicide three times during the study period.

Overall, the median time between the first ATRRS class date and the first suicide attempt was 6.4 months (range: 0–12) (Table 2). For soldiers with multiple suicide attempts (n = 7), the median time to the first suicide attempt was longer (8.9 months) compared to soldiers with one suicide attempt (6.4 months) (Table 2). Eighty-six percent (86%) of the suicide cases occurred when the soldiers were estimated to no longer be in training (median: 9 months; range: 3–12 months). This percentage was higher than the estimated 70% of suicide attempt cases who were no longer in training when the attempt occurred.

For suicide attempt cases, the primary method used was drugs (n = 188; 49%), followed by hanging/asphyxiation (n = 69; 18%), sharp or blunt object (n = 52; 14%) and other (n = 70; 19%). “Other” included but was not limited to drowning; jumping from a high place; ingesting solvents, pesticides, or other agricultural chemicals; being struck by a moving object; and one missing cause. Hanging/asphyxiation was the most common method among the soldiers who attempted suicide during the first month of training. After the first month of training, attempted drug overdose became a more prevalent method (e.g., 16% of suicide attempt cases in the first month compared to 49% across the entire first year). Among soldiers who died by suicide, the most common method was firearm/gun (primarily other than military issue) (n = 15; 52%), followed by hanging/asphyxiation (n = 10; 34%), and other (n = 4; 14%). “Other” included drugs, jumping from a high place, data unavailable, and other non-specified methods. Notably, the first death by firearm did not occur until the end of the fourth month.

Discussion

The first year of Army service presents unique transitions. Following their induction, soldiers typically spend less than 3 months of service in BCT and then either transition to AIT for the next several months or remain in OSUT for the duration of training before being assigned to their first permanent duty station (approximately 6 months after the onset of their initial training). The duration of training varies based on the soldier’s military occupational specialty. For some soldiers, these periods of transition may be stressors precipitating behavioral health concerns and suicidal behavior.

Joiner’s (2005) Interpersonal Theory of Suicide (ITS) illustrates potential causal processes which may lead to suicidal behavior through thwarted belongingness, perceived burdensomeness, and acquired capability (Joiner, 2005; Van Orden et al., 2010). Thwarted belongingness, as defined by “feelings of loneliness and a lack of reciprocally positive relationships,” in conjunction with negative feelings of being a burden or liability to others, may present a greater risk of suicidal ideation compared to either perceived burdensomeness or acquired capability (Joiner, 2005; Joiner et al., 2012). Active suicidal ideation may develop when thwarted belongingness and perceived burdensomeness occur concurrently with relative stability (hopelessness) (Joiner, 2005; Joiner et al., 2012). Suicidal action is likely to occur when the acquired capability or fearlessness about pain, injury, or death is elevated (Joiner, 2005; Joiner et al., 2012). Klonsky et al. (2016) suggest suicide capacity is additionally reflective of qualities an individual may be born with (e.g., genetic); habituation to pain, fear, injury, or death; and practical factors, such as ready access to firearms. Lastly, for serious suicidal behavior to occur, the desire to die by suicide must be accompanied by the acquired capability to do so (Joiner, 2005; Joiner et al., 2012).

Prior research has described the time period around the move to the first duty station as a high-intensity environment where soldiers struggle with isolation from previously established social support, their new status as a soldier, and self-esteem (Novaco et al., 1989). These may engender feelings of both thwarted belongingness and perceived burdensomeness as described by Joiner’s ITS. Given the

Table 2. Time between first ATRRS course and subsequent suicidal behavior among enlisted army soldiers in the first year of service between FY2013 and FY2016 (N = 405).

<table>
<thead>
<tr>
<th>Time to Subsequent Suicide Attempt</th>
<th>Time Between First ATRRS Course and Initial Suicide Event (Months)</th>
<th>Time Between First Suicide Attempt and Second Suicide Attempt (Months)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Median</td>
</tr>
<tr>
<td>Suicide Attempt</td>
<td>376</td>
<td>6.4</td>
</tr>
<tr>
<td>One Attempt</td>
<td>369</td>
<td>6.4</td>
</tr>
<tr>
<td>&gt;1 Attempt a</td>
<td>7</td>
<td>8.2</td>
</tr>
<tr>
<td>Suicide</td>
<td>29</td>
<td>9.0</td>
</tr>
</tbody>
</table>

a Multiple attempts were collapsed with suicide attempts.
compilation of stressors from civilian life and transition into the military, it is crucial for new soldiers to integrate into their unit, build social connections, and gain confidence in their skills as a soldier. Leaders should also ensure participation in unit sponsorship programs to assist new soldiers in acclimating to their new work environment and duties during this important transition period.

In our results, 97% of the enlisted soldiers who died by suicide did so after the first three months of service. During this time, most soldiers would still be in the initial training environment. The potential lack of opportunity to engage in suicidal behavior (e.g., constant supervision by a drill sergeant or connection with a battle buddy) as well as lethal means safety (e.g., limited access to weapons outside of the training environment) could explain this notable finding (Stanley et al., 2017). Acquired capability, the last component of Joiner’s ITS, is minimized during BCT and OSUT because of the factors listed above. One goal of the Defense Strategy for Suicide Prevention is to “promote efforts within the Department of Defense to reduce access to lethal means among individuals with identified suicide risk” (DOD, 2017, p. i).

Effective interventions for means reduction include incorporating bridge barriers, reducing access to firearms, over-the-counter and prescription medications, hanging apparatuses, pesticides, and razors, among others (Mann et al., 2005; Van der Feltz-Cornelis et al., 2011). Ensuring opportunities for means safety are maintained after transition to a first duty station should be further prioritized (DSPO, 2018). The Counseling on Access to Lethal Means (CALM) program should be considered as a mandatory training requirement among key personnel (Barber & Miller, 2014; Johnson et al., 2011). CALM is a means safety training for mental healthcare providers (clinical and nonclinical) to implement counseling strategies to help clients at risk for suicide and their families (Barber & Miller, 2014; Johnson et al., 2011).

Our results suggest that in the first year of service, the transition to suicidal behavior (attempt or suicide) may occur more rapidly in those who attempt suicide compared to those who die by suicide. However, due to sample size constraints, it was difficult to compare characteristics between these two groups in this analysis. Demographically, the groups were similar, with the exception of a greater proportion of females in the suicide attempt group as compared to the suicide group. Additionally, there was a greater proportion of 25–34 year-old soldiers in the suicide group compared to the suicide attempt group. These findings were consistent with previous observations (Ursano et al., 2015a). Thirty-nine (9.6%) of the suicide attempts in the first year of service occurred during the first month of training, which highlights the continued need to implement effective resiliency programs as soon as possible during BCT and OSUT to address foundational skills in managing life stressors early in the soldier’s military career (DOD, 2018). Notably, 90% of people who attempt suicide and survive do not attempt suicide again (DSPO, 2018). Therefore, strengthening resiliency and promoting the use of behavioral health care and other resources could be valuable.

While not available in this study, there are other factors such as adverse childhood experiences (ACEs), sleep disturbances, relationship problems, or financial problems which may contribute to suicidal behavior. ACEs have been associated with increased risk of suicidal behavior and some research suggests that men with military service report a higher proportion of ACEs when compared to their civilian counterparts (Blosnich et al., 2014). Promoting the use of support services provided by organizations, such as Military OneSource, Military Families Learning Network, USO Centers, and Army Community Services are mechanisms that may be used to support new soldiers and build resilience. Sleep disturbances may also prospectively predict some suicidal behaviors, as well as exasperate other behavioral health conditions (Liu et al., 2020). Army Wellness Center resources which provide education on sleep habits and stress management may benefit new soldiers as they adjust to their new environment. More severe sleep problems may require referral to clinical care.

In this cohort of trainee soldiers, other suicidal behaviors or a suicide attempt may have occurred prior to enlistment. Soldiers with prior NSSI, suicidal ideation, or attempts may not have been identified by healthcare professionals at a Military Entrance Processing Station because objective historical data are not accessible beyond that which the recruit provides or discloses (United States Congress House Committee on Armed Services, 2015). To increase their likelihood of being selected for enlistment, recruits may purposefully omit details related to objective historical data which could disqualify them. This context is important and could partially explain the occurrence of suicide attempts or suicides within the first year of service. As previously mentioned, a history of self-harm is a risk factor for death by suicide. In the Army STARRS New Soldier Study, Ursano et al. (2015) reported lifetime prevalence...
estimates of pre-enlistment suicide attempts were 1.9%, with most suicide plans and attempts occurring within the first year after the onset of ideation. Furthermore, one study of Regular Army service members with suicidal ideations found nearly 20% of the sample had attempted suicide pre-enlistment; the odds of a subsequent attempt were over four times greater compared to those who made an initial attempt after enlistment (Comtois et al., 2016). In this analysis, the time to subsequent events was shorter than it was for the first attempt, which may suggest significant stressors or a lack of coping mechanisms. For example, the occurrence of multiple-suicide attempt events within a 1-day period highlights the need for further research to heighten understanding of behaviors among soldiers who are potentially at the highest risk for suicide. In addition, further exploration is needed to better characterize prior suicidal behavior of recruits entering military service. Research by Fazel and Runeson (2020) suggests that in addition to the occurrence of prior suicidal behavior, information relating to the prevalence of social health indicators such as healthy behaviors, social loss, and substance use should also be considered during the initial entry clinical assessment. The use of tools and/or techniques to reduce the likelihood of social desirability bias is also important because the information obtained will allow providers to make a more appropriate recommendation about fitness for military duty. Among those who are deemed fit, the development of targeted interventions may decrease the likelihood of a subsequent event post-entry. Medical and unit in-processing are important opportunities for new soldiers to learn about the behavioral healthcare and community resources available to them.

One of the primary strengths of our study was the assessment of Army soldiers from their point of entry into the military, a time when their exposure to military-related protective factors (e.g., resilience) and many military-related stressors (e.g., deployment and geo-dispersion) were unlikely to influence suicidal behavior. The study population was identified through two robust administrative data sources. The ATRRS is the gold standard for training information, and the DoDSER is considered a comprehensive, standardized suicide registry. The time period included soldiers in calendar year 2012, the peak year for Army suicide rates. This study is generalizable to soldiers in their first year of service.

There are several limitations which should be considered in the interpretation of the results. First, the suicidal behavior data were obtained from the DoDSER, which includes only those suicidal behaviors requiring hospitalization or evacuation per Army Regulation 600–63 (Department of the Army, 2015). The DoDSER is used as the standard reporting mechanism for suicidal behavior per DoDi 6490.16. International Classification of Disease, Clinical Modifications (ICD-CM) ninth and tenth revision codes were not used to identify possible additional suicide attempts which may have not been present in the DoDSER. Prior Army STARRS work noted some “medical codes related to suicidal behavior (e.g., E95x) do not automatically trigger completion of a DoDSER form, and vice versa, because the codes are not monitored as part of the determination for a DoDSER” (Ursano et al., 2015a, p. 4). However, across the U.S. military, the DoDSER is the standardized suicide surveillance web-based system for collecting, organizing, and securing case-level data relating to suicide and suicide attempts among service members through trained military health system or command-level appointees (DOD, 2018). Second, suicidal behavior could have occurred prior to military service, and prior suicidal behavior is a known risk factor for suicide (Klonsky et al., 2016; Ursano et al., 2015b). Third, the small number of suicide behavior events limited statistical power and precluded adjustments for known confounding variables such as age, sex, race, military occupational specialty, deployment history, and behavioral health history.

Little is known about first-year soldiers beyond the 2011–2012 time period and any interventions which could target risk factors to help prevent suicidal behavior events (Nock et al., 2013; Ursano et al., 2015c). Future research should consider incorporating a longer follow-up period or a longer time period for enrollment to both increase the sample size and control for other known confounding variables. Expanding the study period to the first 2 years of service may also be beneficial because other research has suggested this time period reflects a heightened risk for soldiers with less prolonged exposure to military culture (Ursano et al., 2015b). A better mechanism for obtaining important pre-enlistment contextual information is also important. In addition to the more common clinically-related stressors associated with suicidal behavior, information collected on social health indicators may present a more comprehensive view of risk for suicidal behavior among new soldiers. Other researchers have focused on NSSI and suicidal ideation, both of which typically occur before a suicide or suicide attempt. The development of a tool or survey to capture the occurrence of these behaviors
within the first year of service are worthy of investigation given the difficulty identifying this information using military administrative data sources (Bryan et al., 2015). Conducting interviews and/or focus groups or designing a prospective study among new soldiers with a previous history of suicidal behavior and following their progression through the military may also prove beneficial. The use of a mixed-methods approach (combining qualitative and quantitative metrics) to characterize this population may assist the development of new interventions and prevention initiatives.

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**Human participant protection**

The Public Health Review Board of the US Army Public Health Center approved this study as Public Health Practice under number 17-550.

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**Disclaimers**

The views expressed in this publication are those of the authors and do not necessarily reflect the official policy or position of the U.S. Department of the Army, U.S. Government. The views expressed in this publication are those of the authors and do not necessarily reflect the official policy or position of the U.S. Department of Defense, or the U.S. Government.

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