REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. REPORT DATE *(DD-MM-YYYY)*	2. REPORT TYPE	3. DATES COVERED *(From - To)*
10-08-2020	Master of Military Studies (MMS) thesis	AY 2020-2021

4. TITLE AND SUBTITLE
Suicide in the Military

5a. CONTRACT NUMBER
N/A

5b. GRANT NUMBER
N/A

5c. PROGRAM ELEMENT NUMBER
N/A

6. AUTHOR(S)
Da Silva, Jason M. (Major)

5d. PROJECT NUMBER
N/A

5e. TASK NUMBER
N/A

5f. WORK UNIT NUMBER
N/A

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
USMC Command and Staff College
Marine Corps University
2076 South Street
Quantico, VA 22134-5068

8. PERFORMING ORGANIZATION REPORT NUMBER
N/A

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)
N/A

10. SPONSOR/MONITOR'S ACRONYM(S)

11. SPONSOR/MONITOR'S REPORT NUMBER(S)
N/A

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release, distribution unlimited.

13. SUPPLEMENTARY NOTES

14. ABSTRACT

Active duty service members and veterans are committing suicide at an alarming rate, and the methods and criteria currently used to diagnose suicidal indicators seem to be lacking. More focus needs to be put on finding effective ways of analyzing and identifying these indicators. Studies have shown that a precision medicine model can effectively aid in assessing suicide risk, and more emphasis needs to be applied in establishing a precision medicine model. Additionally, the current six method process used in screening applicants before acceptance to service needs to include a psychological evaluation by a medical professional.

15. SUBJECT TERMS
Military suicide; suicide prevention in the military; effectiveness of military suicide prevention techniques; recognizing suicidal indicators in the military

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			USMC Command and Staff College
Unclass	Unclass	Unclass	UU		19b. TELEPHONE NUMBER *(Include area code)* (703) 784-3330 (Admin Office)

United States Marine Corps
Command and Staff College
Marine Corps University
2076 South Street
Marine Corps Combat Development Command
Quantico, Virginia 22134-5068

MASTER OF MILITARY STUDIES

Suicide in the Military

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MILITARY STUDIES

Major Jason M. Da Silva, United State Marine Corps

AY 2020-21

MMS Mentor Team and Oral Defense Committee Member:
Lauren Mackenzie
Approved: _____
Date: 8 Apr 21

MMS Mentor Team and Oral Defense Committee Member:
Owen Nuci
Approved: _____
Date: 4-08-21

United States Marine Corps
Command and Staff College
Marine Corps University
2076 South Street
Marine Corps Combat Development Command
Quantico, Virginia 22134-5068

MASTER OF MILITARY STUDIES

Suicide in the Military

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MILITARY STUDIES

Major Jason M. Da Silva, United State Marine Corps

AY 2020-21

MMS Mentor Team and Oral Defense Committee Member:
_____
Approved: _____
Date: _____

MMS Mentor Team and Oral Defense Committee Member:
_____
Approved: _____
Date: _____

Executive Summary

Title: Suicide in the Military

Author: Major Jason M. Da Silva, United States Marine Corps

Thesis: Active duty service members and veterans are committing suicide at an alarming rate, and there does not seem to be an effective mitigation strategy. In many instances, suicidal members underwent psychological evaluations within the military and other agencies and were not deemed as threats to themselves. The methods and criteria currently used to diagnose suicidal indicators seem to be lacking, and more focus needs to be on finding effective ways of analyzing and identifying these indicators.

Discussion: Throughout this paper, the following research questions will be addressed in order to gain a better understanding of suicide prevention: What are the current techniques used in recognizing and addressing suicidal indicators in active duty members? To date, how effective have these techniques been in recognizing and addressing suicidal indicators in active duty members? How might the military improve its effectiveness in recognizing and addressing suicidal indicators in active duty members? The overarching goal in addressing these questions is to assess what methods could be improved and avenues that might be explored to decrease the existing suicide rate. Numerous scholarly works have been published concerning suicide among active duty and military veterans that have attempted to improve our understanding of what might be leading to these tragic statistics. Unfortunately, suicide continues to plague not just military personnel, but society at large, and it seems as though it is not slowing down.

Conclusion: Suicide amongst active-duty military and veterans continues to rise. Though numerous attempts to try and address this unfortunate fact have been made, there has yet to be a decrease in suicide. Studies have shown that a precision medicine model can effectively aid in assessing suicide risk, and more emphasis needs to be applied in establishing a precision medicine model. Additionally, the current six method process used in screening applicants before acceptance to service needs to include a psychological evaluation by a medical professional. These individuals are trained and equipped with the tools to properly assess the potential for someone to harm themselves. Though it has been noted that the time and money associated with establishing a capability like this at Military Entrance Processing Stations is quite costly, the advantages potentially outweigh the costs.

DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

Illustrations

Page

Preface

I would like to thank Dr. Lauren Mackenzie and Mr. Owen Nucci for their guidance, mentorship and continued assistance throughout this journey. You both have been great to work with, thank you!

So why am I writing about suicide? Suicide has unfortunately touched me in more ways than one. As a teenager and young adult, I lost two friends to suicide. The pain and suffering that I saw their families go through was sickening, and I remember not even being able to imagine what it must be like. With so many unanswered questions, those family members were left hurt, helpless and forever damaged. I had no idea at the time that my association with this pandemic was only just beginning.

I have conducted two suicide command investigations and I found that one of the victims was receiving out-patient mental health treatment. Even with treatment, this Marine took his own life. What are we missing that could improve our ability to prevent these atrocities? What could the health care system have done better? These are questions that we have yet to effectively answer. Little did I know, I was about to come closer to suicide than I could have ever imagined.

On October 17th, 2019, my youngest brother, former Marine Sergeant Sean David Da Silva, took his own life. An Arabic Linguist with 2D Radio Battalion while on active duty, Sean joined the Defense Intelligence Agency (DIA) after being honorably discharged in the fall of 2018. He seemed to have his life in order. He was a stellar performer with the DIA and regularly told me how much he loved his job. What led him to decide one morning before work that life was no longer livable? He had numerous psych evals within the military and the Department of Defense in order to receive a top-secret clearance. What was missed? I have received suicide prevention training yearly, how did I not see this coming? Is the suicide training that I received even effective?

Though I know I could not have changed this outcome, these are questions that I have asked myself. I quickly realized that my family and I were now just like the family members that I encountered at the funerals of my friends and during the command investigations I had previously conducted. We were lost, hurt, and in search of answers that we would never get. Like them, our lives were forever changed.

I know that this paper will not curb the ongoing suicide pandemic within the military and its veterans. I only hope that there is a continued focus on figuring out how we can be more effective in reducing suicide.

Lastly, to my brother Sean. Beloved son, brother and uncle, you are loved and forever missed. Top, bottom, bottom!

Table of Contents

Page

I. INTRODUCTION

Active duty service members and veterans are committing suicide at an alarming rate, and there does not seem to be an effective mitigation strategy. In many instances, suicidal members underwent psychological evaluations within the military and other agencies and were not deemed as threats to themselves. The methods and criteria currently used to diagnose suicidal indicators seem to be lacking, and more focus needs to be on finding effective ways of analyzing and identifying these indicators.

Throughout this paper, the following research questions will be addressed in order to gain a better understanding of suicide prevention: What are the current techniques used in recognizing and addressing suicidal indicators in active duty members? To date, how effective have these techniques been in recognizing and addressing suicidal indicators in active duty members? How might the military improve its effectiveness in recognizing and addressing suicidal indicators in active duty members?

The overarching goal in addressing these questions is to assess what methods could be improved and avenues that might be explored to decrease the existing suicide rate. In the most recent Department of Defense (DOD) Annual Suicide Report for Calendar Year 2019, it was noted that there were 498 confirmed or pending deaths by suicide among the active, reserve, and National Guard service members, the report notes that active duty suicides are increasing, reserve suicides decreasing, and National Guard suicides neither increased nor decreased.[1] Though the data does show a cumulative decrease in suicide across the three classifications of military service, there continues to be an increase in suicide among active-duty members. The United States Department of Veterans Affairs (VA) 2020 National Veteran Suicide Prevention Report analyzed calendar year 2018, noting that 6,435 veterans committed suicide in 2018, an increase

of 0.6% from 2017.[2] These staggering numbers equate to 17.6 veterans committing suicide each day, an increase from 17.5 veterans per day the previous year.[3] It is also noted that since 2008 veteran suicides have increased each year, and that there has been a 6.3% increase in veteran suicide from 2005, despite a veteran population that has decreased by more than 4 million during the same period.[4]

Numerous scholarly works have been published concerning suicide among active duty and military veterans that have attempted to improve our understanding of what might be leading to these tragic statistics. Unfortunately, suicide continues to plague not just military personnel, but society at large, and it seems as though it is not slowing down. This paper will address the aforementioned questions, focusing on the theme of effectiveness, analyzing what is working and what is not. If the current approaches are not working and are proving to be ineffective, other means of attacking this ugly reality need to be established. This paper will also bring attention to the potential to pinpoint suicidal indicators during the screening of a service member before accepting them to serve in the armed forces. This paper will close with recommendations to increase the effectiveness of suicide prevention and possible ways forward to reduce this national problem.

II. LITERATURE REVIEW

The following literature review is designed to examine the complexity surrounding suicide and is organized into three categories. It begins with a summary of the major scholarly works devoted to understanding suicide. Next, a thorough review of current studies and techniques used in recognizing suicidal indicators is provided. The section concludes with a discussion of the effectiveness of these techniques.

Scholarly Works

Thomas Joiner is one of the most renowned experts on suicide alive today – and the majority of scholarly articles devoted to suicide reference his work. In his book, *Why People Die by Suicide*[5] Joiner discusses suicide and the unfortunate circumstances within his own life that have led him to take such a vested interest in it. He highlights that to commit the act of suicide, one must have the ability, or an acquired capability, to inflict severe harm to oneself. He states: "The truth about suicide may prove unsettling-it is not about weakness, it is about the fearless endurance of a certain type of pain."[6] Joiner points out several themes that are common throughout much of the research devoted to suicide. Those that desire to die by suicide lack a sense of belongingness and they feel as though they are a burden. He writes that "the desire for death is composed of two psychological states-perceived burdensomeness and failed belongingness."[7] Research devoted to the psychological characteristics of those with suicidal tendencies regularly reference Joiner's work. See, for example, "How Is the Presence of Company Related to Thwarted Belongingness in Real Time."[8]

In *Myths About Suicide*,[9] Joiner uses his theory about a lack of belongingness and perceived burdensomeness to address myths and misunderstandings related to suicide and their relevance in the final action taken. As an example, Joiner addresses the myth that "Suicide is selfish, a way to show excessive self love."[10] Joiner conversely argues that those that do commit suicide are not being selfish. It is not that they don't think of loved ones or those that care about them, but instead, a victim of suicide sees their death as a result of burdensomeness, rationalizing the act to be a good thing. "Those who die by suicide certainly do consider the impact of their deaths on others, but instead they see it differently-as a positive instead of a negative."[11]

The book *Night Falls Fast*[12] takes a deep dive into the psychological aspects of suicide and the important role of mental health in those that commit and do not commit suicide. As a

Professor of Psychiatry at Johns Hopkins University and survivor of a suicide attempt, Kay Jamison attempts to unravel the suicidal thought process and build a stronger understanding of factors that may present themselves in high-risk individuals. While focusing on mental health and the importance of seeking help, Jamison offers theories as to what the best way forward is for those who are diagnosed with depression and manic depression (mental illnesses that Jamison argues makes a person a higher risk for suicide).[13] As we try to understand how mental illness may drive someone to commit suicide, the focus needs to be placed on studies and techniques that are currently being used and/or have been used to try and curb the final act of someone taking their own life.

Current Studies and Techniques

With many different measures developed to try and predict suicidal indicators, experts continue to evaluate better ways to reduce suicide. In "Improving the detection and prediction of suicidal behavior among military personnel by measuring suicidal beliefs: An evaluation of the Suicide Cognitions Scale,"[14] researchers analyzed the Suicide Cognitions Scale (SCS) and assess its validity in the military healthcare setting. The SCS was developed to, "measure suicide-specific beliefs,"[15] like burdensomeness, belongingness, unlovability, unbearability, and hopelessness, and their effect on predicting suicidal ideations and attempts. The results of the study concluded that the SCS was effective in predicting suicidal ideation and attempts, focusing on two suicide-specific beliefs: unlovability (the perception that one is worthless, defective, and fundamentally flawed) and unbearability (the perception that one is incapable of tolerating distress).[16] Though the study is constrained with subjects self-reporting, it was deduced that the SCS is more effective in predicting suicidal attempts and ideations than many of the other risk factors deemed to be reliable indicators.

With many medical professionals highlighting the effectiveness of the SCS with those patients that answer questions honestly and self-report ideations/attempts, another study was done which determined that unsolvability (a feeling as though there are no answers to one's problems, making them unsolvable) should also be added to the two-factor system within the SCS. The article "A Psychometric Study of the Suicide Cognitions Scale With Psychiatric Inpatients" reinforces the determination that SCS is effective in predicting suicidal ideations and attempts, but concludes that a third factor, unsolvability, provides a more consistent preventative result.[17] It was also noted in the study that, "Incremental validity beyond depression and hopelessness was demonstrated in the prediction of suicidal ideation."[18] As depression and hopelessness have been thought to be the driving measures in suicide, the SCS has shown that the unlovability, unbearability, and unsolvability factors have produced positive results and can aid in the prediction of suicidal ideation and attempt. By pinpointing these factors, with the aid of the SCS model, the analysis of these characteristics can transition to the prevention efforts in the military and may assist in understanding why suicide in the military is so high.

Understanding Suicide in the Military

The article *Understanding Suicidal Behavior in the Military: An Evaluation of Joiner's Interpersonal-Psychological Theory of Suicidal Behavior in Two Case Studies of Active Duty Post-Deployers* presents case studies of two active duty service members that seemed to have been on the verge of suicide and analyzed common traits and feelings both subjects experienced.[19] The authors examined Joiner's assertion that a feeling of thwarted belongingness, a feeling of burdensomeness, and an acquired capability for violence were the three factors that would lead to one committing suicide. Though the article did not conclude that Joiner's factors

were the sole players in suicide, it did deduce that "If these variables do not elevate, suicidal behavior would not be expected, regardless of military status."[20] The authors also referred to how the subjects' past (concerning physical abuse and sexual abuse experienced in the early years of life) played a role in their decision making.

Additionally, the article *Firearms Matter: The Moderating Role of Firearm Storage in the Association Between Current Suicidal Ideation and Likelihood of Future Suicide Attempts Among United States Military Personnel* focuses on how service members (National Guard Soldiers were used during this study) store their personal weapons.[21] The authors emphasized the point that whether unsecured and loaded or secured and unloaded, the storage of firearms affects a service member's ideation of suicide and the likelihood of an actual suicide attempt. The article also hypothesized that fearlessness of death played an indirect role in the relationship between suicidal ideation and the likelihood of a self-reported suicide attempt, but the results of the study did not support that. In contrast, the study showed that fearlessness plays a direct role in bridging ideation to an attempt. "Specifically, the relationship between suicidal ideation and likelihood of a future suicide attempt was greater among those who stored their guns loaded and unsecured relative to those who stored their guns unloaded and/or secured. Likewise, individuals who kept their firearms loaded and unsecured reported heightened fearlessness about death."[22]

Furthermore, the article *Overcoming the Fear of Lethal Injury: Evaluating Suicidal Behavior in the Military through the Lens of the Interpersonal-Psychological Theory of Suicide* points out the fact that the US wars in Afghanistan and Iraq have had negative effects on US service members and have increased the number of suicides.[23] The authors discuss the Interpersonal-Psychological Theory of Suicide and the role that these factors have in suicidal thoughts and actions. "This theory proposes that three necessary factors are needed to complete suicide:

feelings that one does not belong with other people, feelings that one is a burden on others or society, and an acquired capability to overcome the fear and pain associated with suicide."[24] Through their studies, it is noted that military training and combat experience directly influence a service-members ability to overcome fear. In turn, this may reduce a service-members fear of actual death by suicide.

Effectiveness of Techniques

The article *Predicting suicides after outpatient mental health visits in the Army Study to Assess Risk and Resilience in Servicemembers* (Army STARRS) illustrates how the current clinician-based procedures used to identify suicidal indicators are failing.[25] This article examines the relationship between those service members that had inpatient mental health treatment, those that received outpatient mental health treatment, and the resultant potential to commit suicide. The article further considered whether some sort of model could be developed to assist in assessing these patients. The authors state that: "Given that clinician-based assessments are known not to be strong predictors of suicide, we investigated whether a precision medicine model using administrative data after outpatient mental health specialty visits could be developed to predict suicides among outpatients."[26] Surprisingly, those with inpatient treatment had a lower rate of suicide than those without. This data shows that those patients that are in need of the benefits offered by inpatient care are instead being categorized as outpatient, reinforcing the hypothesis expressed in the article that medical professionals are getting it wrong. The authors highlight the point that: "Given the much higher suicide rate among outpatients seen by mental health providers than exclusively by general medical providers, we focused analysis on the former…"[27] In order to find the right target demographic, it was concluded through the examination of the suicides that occurred in the Army from 2004-2009 that the study would focus on non-deployed

males, who received outpatient mental health treatment within 6 months of committing suicide, which accounted for 148 of the total suicides in the Army from 2004-2009. "The majority (61.6%; 101/164) of suicide deaths in this group occurred within 5 weeks of mental health specialist outpatient visits (145.2, 96.3, 123.6, 116.5, and 115.1 suicides/100,000 person-years, respectively, in those weeks), with a 57.4/100,000 person-years rate during the remainder of the first 6 months (28.7% [47/164] of suicide deaths over the 12 months after the index visit) and 31.3/100,000 person-years over the subsequent 6 months."[28] Additionally, "Based on these results, we limited model-building to the 26 weeks after the index visit (148 suicides)."[29] The goal of this study was to prove whether or not the development of a "precision medicine model" (precision medicine targets similar demographics of people that share certain characteristics to aid in the establishment of follow-on treatment) would aid in determining suicide risk.[30,31] The precision medicine model explored during the study showed that "The 5% of visits with highest predicted risk include only 0.1% of soldiers with very high suicide risk (1047.1/100,000 person-years in the 5 weeks after the visit)."[32] There were 14 predictors used in the model construction for those with prior hospitalization and 10 predictors in the model for those without prior hospitalization. Those models were then used to analyze past suicides in the Army to try and determine the suicide risk of patients, with the direst being considered high risk.

This data collection and assessment procedures from this study informed the subsequent recommendations of this paper. There are a vast amount of scholarly articles devoted to techniques addressing suicidal ideations and probability. Unfortunately, the effectiveness of these techniques has proven to be questionable at best.

III. EFFECTIVENESS OF CURRENT TECHNIQUES

As medical professionals, both military and civilian, continuously try to find ways to curb the onslaught of suicides in the US, it seems as though the current techniques are lacking in

some manner. Unfortunately, it is not possible to gauge the majority of the success stories in suicide prevention (unless those contemplating suicide came forward and expressed what drove them not to take their own life or in cases of a failed suicide attempt), but with a consistent rise in suicides, one can deduce that what is currently being done is not working. So how do service members contemplating suicide get the help that they need and how do providers determine whether or not a service member or veteran is at risk for suicide?

As discussed earlier, current techniques used in identifying those at risk for suicide are faulty. To analyze past practices and to establish a tool to assist health care providers in determining those at risk, the DoD and VA established an Evidence-Based Practice Work Group (EBPWG).[33] This EBPWG then developed clinical practice guidelines (CPG), aids given to providers to assist in care. The intended goal of the CPG developed at this working group was to "provide healthcare providers with a framework by which to evaluate, treat, and manage the individual needs and preferences of patients at risk for suicide, thereby leading to improved clinical outcomes."[34] Though not inclusive, this CPG laid out three algorithms, from A to C, to aid in the assessment of suicidal risk. Algorithm A, Identification of Risk for Suicide, Algorithm B, Evaluation by Provider, and Algorithm C, Managing of Patients at Acute Risk for Suicide.[35] Like a checklist, these algorithms work in a sequence that is determined by the providers' understanding and analysis of the potential patient (see Figures 1., 2., and 3.).

Figure 1. Algorithm A - Identification of Risk for Suicide.[36]

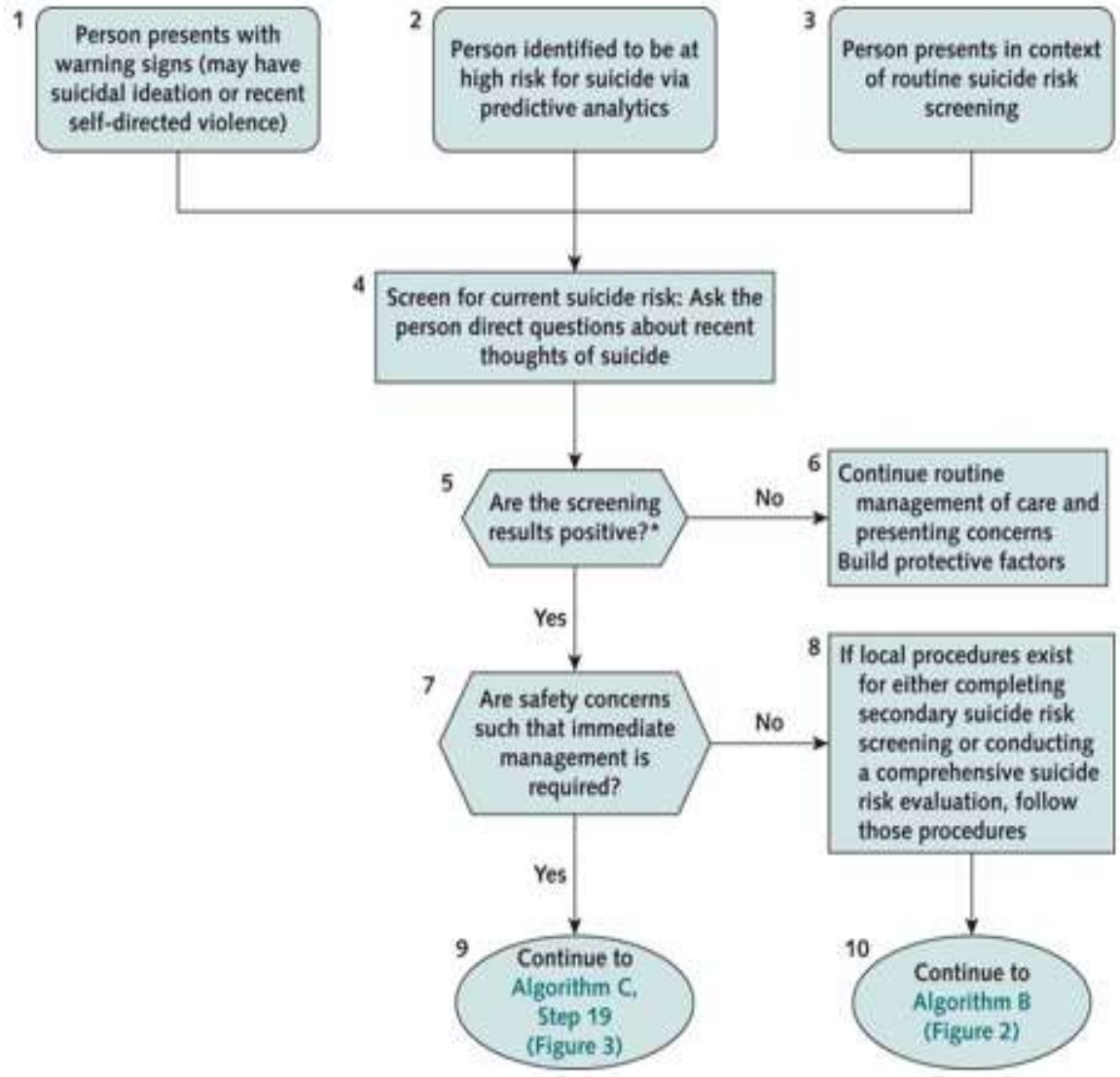


Figure 2. Algorithm B - Evaluation by Provider.[37]

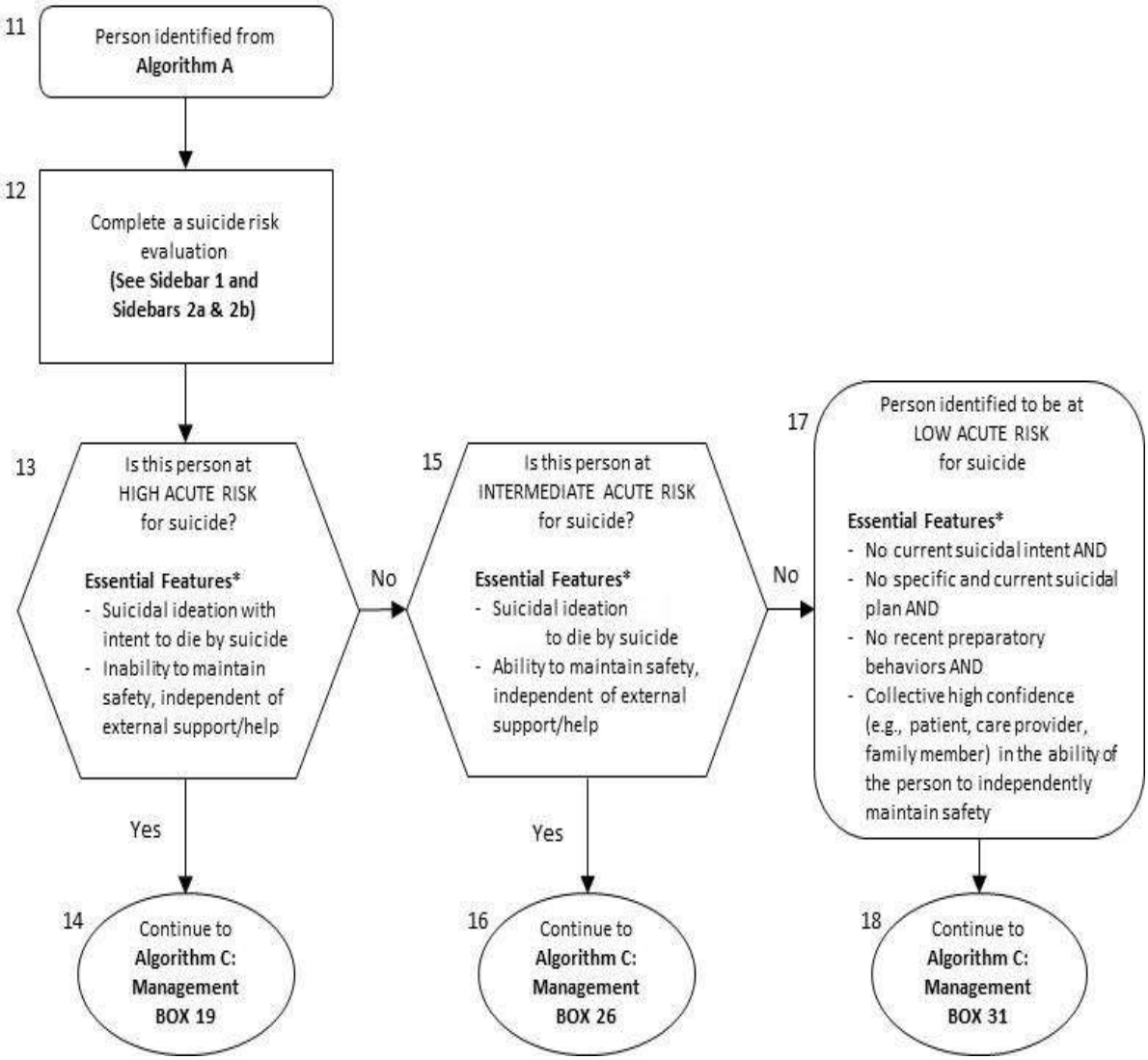
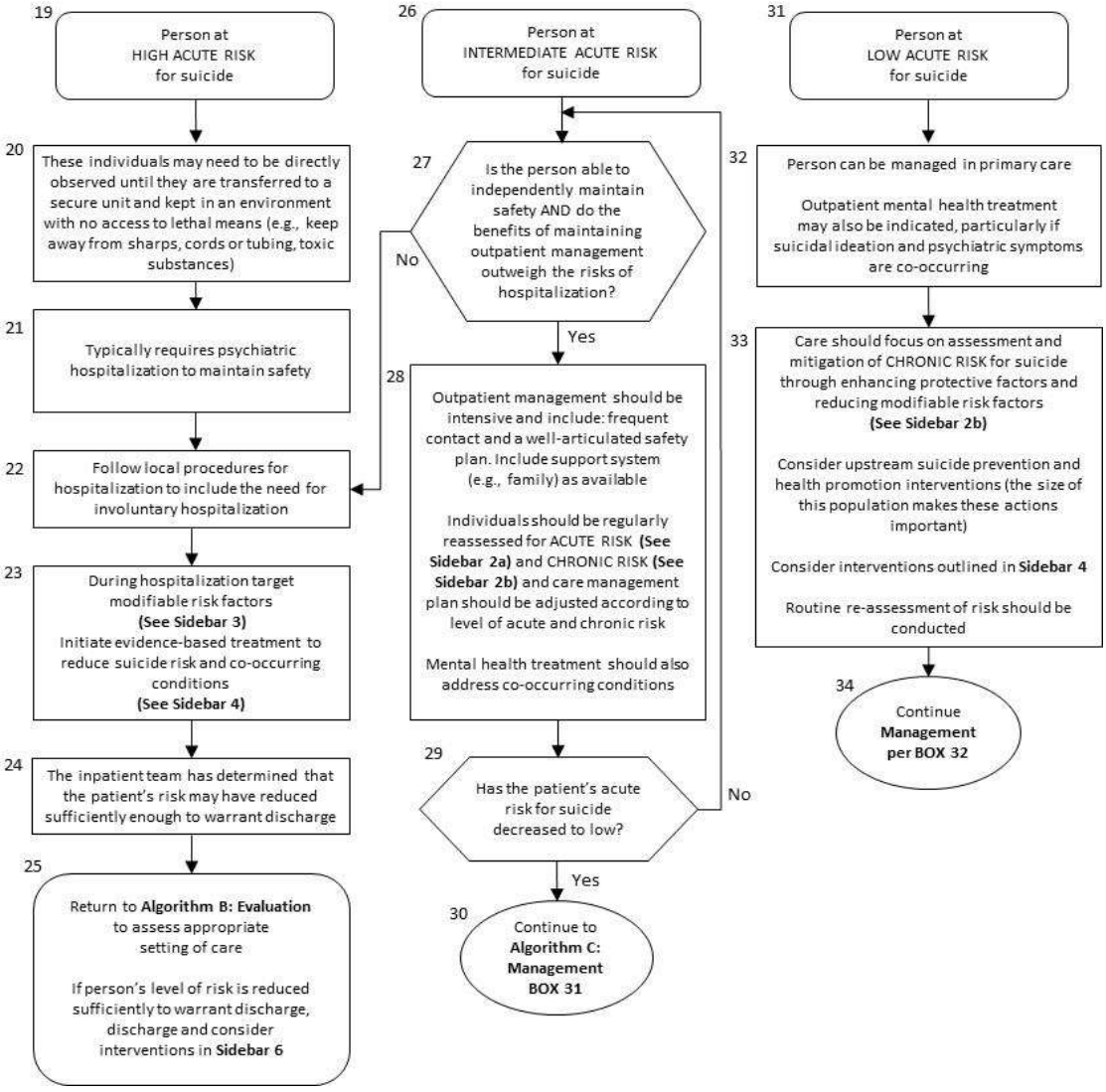


Figure 3. Algorithm C - Management of Patients at Acute Risk for Suicide.[38]



Upon the establishment and publishing of the CPG relating to suicide prevention, it noted within the guidance that, "Although the Work Group recognizes that not all clinical practices are linear, the simplified linear approach depicted through the algorithm and its format allows the provider to assess the critical information needed at the major decision points in the clinical process."[39] Still in its infancy, the effectiveness of these algorithms to reduce suicide has not been quantified, but it was noted in the review that current assessment techniques were not working.

"Consistent with previous reviews of the evidence base related to the identification of those who are at elevated risk of dying by suicide, the systematic review found that most screening tools do not accurately predict risk of suicide."[40] There is also a reliance on the patient to be forthcoming with information, which may sway the outcome of recommended steps to be taken within the algorithms.

The EBPWG did find promise in the use of "Patient Health Questionnaire-9 (PHQ-9)" as a universal screening instrument to identify suicide risk.[41] Used to assess a patient's level of depression, which has been shown to be a possible indicator of one's possible death by suicide, there has been clinical evidence that supports this model can be successful in predicting suicidal intentions. Structured as a checklist, the questionnaire asks the patient nine questions relating to their mood during the two weeks prior to their medical visit.[42] These nine questions are focused on, "Assessing symptoms and functional impairment to make a tentative depression diagnosis," and patients are given the option to answer either, "not at all, several days, more than half of the days, or nearly every day," with the scoring of each answer ranging from 0 (not at all) to 3 (nearly every day).[43,44] See Appendix A for an example of a PHQ-9.[45]

As the analysis of the effectiveness of the PHQ-9 is ongoing, a focus of emphasis within this questionnaire has been question #9, which asks the patient if they had, "Thoughts that you would be better off dead or of hurting yourself."[46] A very upfront question that targets the patient's past thoughts of self-harm, answers to question #9 have been proven to predict suicide risk. In an article titled, "Does Suicidal Ideation as Measured by the PHQ-9 Predict Suicide Among VA Patients,"[47] it was concluded that, "Higher levels of suicidal ideation, indicated by item #9 of the PHQ-9, were associated with increased risk of suicide among patients in the VHA system."[48] The data revealed that 18.2% of the individuals that responded "nearly every day" to

question #9 died by suicide within the first 30 days of taking the PHQ-9.[49] The results of the study aimed at projecting the increased risk of suicide compared to the answers given for question #9 of the PHQ-9. The professionals analyzing the study deduced that a response of "several days" for item #9 led to a 75% increase in suicide risk, a response of "more than half the days" led to a 115% increase in suicide risk, and a response of "nearly every day" led to a 185% increase in risk of suicide.[50] This data supports the conclusion that question #9 of the PHQ-9 can assist in predicting suicide death. Again, like the algorithm method discussed previously, there is a reliance on the patient to be honest and forthcoming when answering the questions within the PHQ-9, which has the potential to impede follow on care. How are the individual service branches addressing suicide within their ranks?

Each branch of service within the DoD has suicide prevention guidance and tactics offering avenues for those either contemplating suicide or those that know someone who may be contemplating suicide. One informal method used by the United States Marine Corps (USMC) is the Marine Corps DSTRESS line.[51] Manned 24/7, Marines in distress or Marines who know of someone in distress can call this number while remaining anonymous and immediately be connected to Marine veterans, former Fleet Marine Force Navy corpsman, Marine family members and spouses, and licensed medical providers.[52] This program emphasizes that discussing problems is extremely relevant and helpful in curbing personal issues before they become too overwhelming to handle.

Like the USMC, the United States Army utilizes the Army Suicide Prevention Program (ASPP) to target those in need or able to assist someone in need by offering immediate help. As expressed on their website, the goal of the ASPP is to "prevent suicides and lower the probability that an individual engages in self-injurious behavior."[53] The website provides links to assist in

seeking help, including the "Military Crisis Line" and the "Real Warriors Campaign."[54] The Real Warriors Campaign, like the USMC DSTRESS line, focuses on finding help for those in need. "The campaign links service members, veterans, and their families with care and provides free, confidential resources including online articles, print materials, videos and podcasts."[55]

The United States Air Force (USAF) uses the Air Force Suicide Prevention Program (AFSPP). Similar in concept to the previous services programs, the AFSPP harnesses its focus on 11 core elements. "Built on 11 overlapping core elements stressing leadership and community involvement in the prevention of suicides," the AFSPP offers personnel and their families many different avenues in addressing suicide.[56] The core elements of the AFSPP are: Leadership Involvement; Addressing Suicide Prevention through Professional Military Education; Guidelines for Commanders; Unit-based Preventive Services; Wingman Culture; Investigative Interview Policy; Postvention; Integrated Delivery Systems and Community Action Information Board; Limited Privilege Suicide Prevention Program; Commanders Consultation Assessment Tool; and Suicide Event Tracking and Analysis.[57] Along the same lines as the aforementioned services, the AFSPP offers prevention tools, intervention tools, postvention tools, suicide prevention training, Military One Source and the Military Crisis Line.[58]

The United States Navy (USN) Suicide Prevention Program, or 1 Small Act, is structured like the other armed forces. The Navy Suicide Prevention Handbook focuses on key tenants that aid in suicide prevention, intervention, and follow-on actions to combat suicide, with a goal, "to minimize suicide risk by enhancing Sailor psychological health and resilience to fortify a mission-effective force through unrelenting individual & team responsibility and prevention practices."[59] Another tool used by the USN is Sailor Assistance and Intercept for Life (SAIL). Geared like previously discussed prevention programs, SAIL "is an evidence-based approach to

intervention that provides rapid assistance, ongoing risk assessment, care coordination and reintegration assistance for service members identified with a suicide related behavior (SRB).[60]

In an article published by the Rand Corporation in 2011, a comparison and assessment of suicide prevention techniques was conducted.[61] Focusing on six components of a comprehensive suicide prevention program, potential shortfalls in policy were noted, specifically in the service program's ability to: facilitate access to quality care; deliver quality care; and restrict access to lethal means.[62]

Figure 4. Assessment of Suicide-Prevention Activities Across Services.[63]

<table>
<tr><th>Goal</th><th>Army</th><th>Navy</th><th>Air Force</th><th>Marines</th></tr>
<tr><td>Raise awareness and promote self-care</td><td colspan="4">Primarily awareness campaigns, with fewer initiatives aimed at promoting self-care</td></tr>
<tr><td>Identify those at risk</td><td>Expansive but rely mostly on gatekeepers</td><td>Mostly rely on gatekeepers</td><td>Investigation policy</td><td>Mostly rely on gatekeepers</td></tr>
<tr><td>Facilitate access to quality care</td><td colspan="4">Stigma addressed primarily by locating behavioral health care in nontraditional settings</td></tr>
<tr><td></td><td>No policy to assuage privacy or professional concerns</td><td colspan="2">Limited privilege</td><td>No policy</td></tr>
<tr><td></td><td colspan="4">No education about benefits of accessing behavioral health care</td></tr>
<tr><td>Deliver quality care</td><td>Not considered in domain of suicide prevention</td><td colspan="2">Past efforts exist with a sustainment plan</td><td>Past efforts exist, but not sustained</td></tr>
<tr><td>Restrict access to lethal means</td><td>No current policies exist</td><td colspan="2">Limited guidance</td><td>No policy</td></tr>
<tr><td>Respond appropriately</td><td colspan="4">Personnel/teams available, but limited guidance</td></tr>
</table>

The authors of the article concluded with 14 recommendations to assist the services in improving their suicide prevention programs, two of which were overarching recommendations that focused on surveillance and evaluation, while the remaining 12 recommendations focused on the six components of a comprehensive suicide program.[64] Though this assessment was published in 2011, it still highlighted the fact that suicide prevention techniques needed refinement.

Even with the unwavering support offered throughout the DoD and VA, suicides are still on the rise in the active-duty component and within the veteran population. In the most recent

annual suicide report published by the DoD, it documented that there continues to be an increase in active-duty suicide (see Figure 4.).

Figure 5. Annual Suicide Counts and Rates per 100,000 Service Members by Military Population and Service, CY 2017–CY 2019.[65]

Military Population / Service	CY 2017		CY 2018		CY 2019	
	Count	Rate	Count	Rate	Count	Rate
Active Component	**287**	**22.1**	**326**	**24.9**	**344**	**25.9**
Army	116	24.7	141	29.9	142	29.8
Marine Corps	43	23.4	57	30.8	47	25.3
Navy	65	20.1	68	20.7	72	21.5
Air Force	63	19.6	60	18.5	83	25.1
Reserve	**93**	**25.7**	**81**	**22.9**	**65**	**18.2**
Army Reserve	63	32.1	48	25.3	36	18.9
Marine Corps Reserve	10	--	19	--	9	--
Navy Reserve	9	--	11	--	7	--
Air Force Reserve	11	--	3	--	13	--
National Guard	**133**	**29.8**	**136**	**30.8**	**89**	**20.3**
Army National Guard	121	35.5	119	35.6	74	22.3
Air National Guard	12	--	17	--	15	--

As stated earlier, though there was a slight decline in the reserve and National Guard suicide rates, the active component is still on the rise. The calendar year 2020 suicide rates have not been published, making the analysis of the most recent data concerning the effectiveness techniques unmeasurable at this time.

Many factors can influence someone to commit suicide, not just military service, and some of these factors may present themselves prior to one being accepted into the DoD. Are there any measures taken before acceptance to service that focus on suicidal indicators? Does the DoD have the capability to conduct some sort of pre-service screening to attempt to catch these indicators before members take the oath to serve their country?

IV. PRE-SERVICE PSYCHOLOGICAL SCREENING

Though suicide is considered in some cases as an impulsive action, many professionals agree that pre-service conditions can play a significant role in someone taking their own life. If that is the case, what sort of screening is done before the accession of a member into the military to try and uncover or expose some of these conditions? Surprisingly, there is not much evidence supporting that comprehensive screening of any kind is done.

During the pre-entrance qualification, potential service members are screened using six different methods: DD Form 2807-2 "Accessions Medical Prescreen Report," DD Form 2807-1 "Report of Medical History," USMEPCOM Form 40-1-15-E, Medical History Provider Interview, Medical History Interview, Physical Screening Examinations, and Referral for Mental Health Consultation.[66] These six methods of screening are conducted during the entry process at the regional Military Entrance Processing Stations (MEPS).[67] How do these screening techniques attempt to address potential psychological and/or suicidal concerns?

DD Form 2807-2 "Accessions Medical Prescreen Report"

Completed before the physical examination at MEPS, this questionnaire is completed by the applicant to highlight possible disqualification criteria or issues that may require more attention by the screener. "This form asks the member to disclose whether they have (a) seen a psychiatrist, psychologist, social worker, counselor or other professional for any reason (inpatient or outpatient), (b) current or prior history of evaluation, treatment, or hospitalization for alcohol (or other substance) use/abuse, dependence, or addiction, or dependence."[68] It has been noted that this screening tool is only as effective as the information provided by the candidate. It does lend the ability for the applicant to withhold information that may subsequently disqualify them. However, it was noted that "While not standardized or subjected to reliability or validity testing, exploratory analyses have indicated that over time these interview focus areas have continued to

generate additional behavioral health disclosures."[69] The analysis did not provide any quantitative data to support this conclusion.

DD Form 2807-1 "Report of Medical History"

The Report of Medical History aims to have the applicant disclose any significant medical history that may restrict military service. This exam particularly focuses on, "past or present nervous trouble of any sort (anxiety or panic attacks) including trouble sleeping, depression or excessive worry, evaluation or treatment for a mental condition, counseling of any type, suicide attempts, and use of illegal drugs or abuse of prescription drugs."[70] As with the previous example, openness by the applicant is key to the success of this method. This is one of two methods that directly target suicide.

Medical History Provider Interview

This review is conducted with a medical provider and focuses on the applicant's ability to complete military service and training and attempts to identify possible areas of concern or behavioral issues. The other method that deliberately targets suicide, the Medical History Provider Interview attempts to address the following concerns or behaviors: "depression, self-injury, suicidal ideation and attempts, arrests, suspensions for school, termination of employment, kicked out of home, multiple traffic violations, sleep problems, and alcohol use."[71]

The other three methods continue along with the theme to address concerns associated with military service, continually offering the applicant the ability to divulge potential risk factors that may be issues of concern. It was noted in the report that, "No additional mental or physical health accession screen has yet been identified, or validated, to have adequate reliability or the ability to predict potential adverse behavioral health outcomes for the large and heteroge-

neous population of recruits."[72] Furthermore, the report states that "To date, efficient and appropriately validated predictive tools for use with military recruits motivated to gain entrance into military service do not exist."[73]

One consideration concerning this report that must be mentioned is that those persons conducting the interviews with the applicants are medical providers, not necessarily mental health professionals. Would there be any benefit in MEPS acquiring mental health professionals to conduct a psychological screening of applicants before approving them for service? Mental health professionals are more suited to conduct the psychological screening of applicants. It seems to have been considered as a recommendation prior to the publishing of this report, but it was concluded that "Given the uncertainty of the benefit of additional measures, and the added costs and time associated with administration of psychological and neuropsychological assessment measures as distinguished from the mental and physical screening currently in place, modifications to the current USMEPCOM screening process would not be advised."[74] This is an option that should be revisited.

Recommendations

As highlighted throughout this paper, suicide amongst active-duty military and veterans continues to rise. Though numerous attempts to try and address this unfortunate fact have been made, there has yet to be a decrease in suicide. Studies have shown that a precision medicine model can effectively aid in assessing suicide risk. With the support of this conclusion, more emphasis needs to be applied in establishing a precision medicine model geared towards assessing suicidal risk.

The current six method process used in screening applicants before acceptance to service needs to include a psychological evaluation by a medical professional. These individuals are

trained and equipped with the tools to properly assess the potential for someone to harm themselves. Though it was noted that the time and money associated with establishing a capability like this at MEPS is quite costly, the advantages potentially outweigh the costs.

V. CONCLUSION

This research has cast more light on the already known problem of suicide in the military. Numerous scholarly articles have addressed this pandemic, but there still is not an effective and efficient way to prevent suicide. With such a reliance on the open and honest disclosure of information relating to suicide indicators from those at risk, being able to prevent potential suicide of those truly wanting to take their own life is extremely problematic. Some of the data contained in this paper has reinforced some principles and methods that can assist in reducing suicide.

Some limitations were encountered during the writing of this paper. There is a lack of evidence in support of techniques that work in the realm of suicide prevention. The data gathered on suicide is compiled as a result of the final act, not from those actions that prevented someone from committing suicide. This makes it difficult to quantify what actually works.

It is recommended that future research focus on the kinds of methods and techniques that work outside of the US. Though suicide is a global crisis, the research in this paper was mostly drawn from domestic sources. An analysis into suicide prevention techniques outside the continental US may offer additional avenues, methods, and preventive measures that have not been employed here. A further limitation of the current paper is that it did not analyze suicide prevention techniques employed by the armed forces of other countries. Comparing their data and preventive measures could have provided valuable resources for the current paper.

Future research should also look into the ways, if any, in which mental health professionals are used in allied nation armed forces during the pre-service selection process to attempt to

address suicidal indicators prior to service. As highlighted in the recommendation section, these medical providers play a pivotal role in suicide prevention efforts and may be able to get these individuals much-needed help before bringing them into a military setting.

---

1. US Department of Defense, "Annual Suicide Report Calendar Year 2019," *Under Secretary of Defense for Personnel and Readiness,* August 20, 2020, pg.10, accessed at https://www.dspo.mil/asr/

2. US Department of Veterans Affairs, "2020 National Veteran Suicide Prevention Annual Report," *Office of Mental Health and Suicide Prevention.* November 2020. Accessed at https://www.mentalhealth.va.gov/docs/data-sheets/2020/2020-National-Veteran-Suicide-Prevention-Annual-Report-11-2020-508.pdf

3. Ibid, pg. 3.

4. Ibid, pg. 3.

5. Joiner, Thomas E., *Why People Die By Suicide,* Cambridge, Massachusetts: Harvard University Press, 2005.

6. Ibid, pg. 9.

7. Ibid, pg. 136.

8. Hallensleben, Nina, Heide Glaesmer, Thomas Forkmann, Dajana Rath, Maria Strauss, Anette Kersting, and Lena Spangenberg, "How Is the Presence of Company Related to Thwarted Belongingness in Real Time? Taking a Closer Look at the Conceptualization of the Construct of the Interpersonal Theory of Suicide," *International Journal of Environmental Research and Public Health.* 2020, 17, 4873. 6 July 2020.

9. Joiner, Thomas E., *Myths About Suicide,* Cambridge, Massachusetts: Harvard University Press 2010.

10. Ibid, pg. 42.

11. Ibid, pg. 44.

12. Jamison, Kay R. *Night Falls Fast: Understanding Suicide,* New York, New York: Random House Inc, 1999.

13. Ibid.

14. Bryan, Crag J., MM. David Rudd, Evelyn Wertenberger, Neysa Etienne, Bobbie N. Ray-Sannerud, Chad E. Morrow, Alan L. Peterson, and Stacey Young-McCaughon, "Improving the detection and prediction of suicidal behavior among military personnel by measuring suicidal beliefs: An evaluation of the Suicide Cognitions Scale," *Journal of Affective Disorders,* Vol. 159, 15–22, 19 February 2014.

15. Ibid.

16. Ibid.

17. Ellis, Thomas E., and Katrina A. Rufino, "A Psychometric Study of the Suicide Cognitions Scale With Psychiatric Inpatients," *American Psychological Association,* 2015, Vol. 27, No. 1, 82– 89.

18. Ibid.

19. Anestis, Michael D., Craig J. Bryan, Michelle M. Cornette, and Thomas E. Joiner, "Understanding Suicidal Behavior in the Military: An Evaluation of Joiner's Interpersonal-Psychological Theory of Suicidal Behavior in Two Case Studies of Active Duty Post-Deployers," *Journal of Mental Health Counseling*; Jan 2009; 31, 1; ProQuest Central pgs. 60-75.

20. Ibid.

21. Khazem, Lauren R., Claire Houtsma, Kim L. Gratz, Matthew T. Tull, Bradley A. Green, and Michael D. Anestis, "Firearms Matter: The Moderating Role of Firearm Storage in the Association Between Current Suicidal Ideation and Likelihood of Future Suicide Attempts Among United States Military Personnel," *Military Psychology*, 2016, Vol. 28, No. 1, 25–33.

22. Ibid.

23. Selby, Edward A., Michael D. Anestis, Theodore W. Bender, Jessica D. Ribeiro, Matthew K. Nock, M. David Rudd, Craig J. Bryan, Ingrid C. Lim, Monty T. Baker, Peter M. Gutierrez, and Thomas E. Joiner Jr., "Overcoming the Fear of Lethal Injury: Evaluating Suicidal Behavior in the Military through the Lens of the Interpersonal-Psychological Theory of Suicide," *Clin Psychol Rev*., 2010 April; 30(3): 298–307.

24. Ibid.

25. Kessler, Ronald C, Murray B. Stein, MD, Maria V. Petukhova, Paul Bliese, and Robert M. Bossarte, "Predicting suicides after outpatient mental health visits in the Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS)," *Mol Psychiatry*. 2017 April; 22(4): 544–551.

26. Ibid.

27. Ibid.

28. Ibid.

29. Ibid.

30. Ibid.

31. Kim, Stephen, "What is Precision Medicine," *Magellan Health Insights,* October 28, 2019, accessed December 16, 2020, https://magellanhealthinsights.com/2019/10/28/what-is-precision-medicine/

33. Kessler, Ronald C, Murray B. Stein, MD, Maria V. Petukhova, Paul Bliese, and Robert M. Bossarte, “Predicting suicides after outpatient mental health visits in the Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS),” *Mol Psychiatry*. 2017 April; 22(4):

33. US Department of Veterans Affairs and US Department of Defense, “Clinical Practice Guideline for the Assessment and Management of Patients at Risk for Suicide,” 2019, pg.5, accessed at https://www.healthquality.va.gov/guidelines/MH/srb/VADoDSuicideRiskCPGProviderSummaryFinal5088212019.pdf

34. Ibid.

35. Ibid.

36. Ibid, pg. 21.

37. Ibid, pg. 22.

38. Ibid, pg. 25.

39. US Department of Veterans Affairs and US Department of Defense, “Clinical Practice Guideline for the Assessment and Management of Patients at Risk for Suicide,” 2019, pg. 20, accessed at https://www.healthquality.va.gov/guidelines/MH/srb/VADoDSuicideRiskFullCPGFinal5088212019.pdf

40. Ibid, pg. 29.

41. Ibid, pg. 29.

42. National Council for Osteopathic Research, "Patient Health Questionnaire (PHQ-9), accessed on February 15, 2021, at https://www.ncor.org.uk/wp-content/uploads/2012/12/Patient-Health-Questionnaire.pdf

43. Ibid.

44. Ibid.

45. Patient Health Questionnaire 9 (PHQ-9), accessed at https://med.stanford.edu/fastlab/research/imapp/msrs/_jcr_content/main/accordion/accordion_content3/download_256324296/file.res/PHQ9%20id%20date%2008.03.pdf

46. Ibid.

47. Louzon, Samantha A., Robert Bossarte, John F. McCarthy and Ira R. Katz, "Does Suicidal Ideation as Measured by the PHQ-9 Predict Suicide Among VA Patients," *Psychiatric Services*, May 2016, accessed at https://ps.psychiatryonline.org/doi/pdf/10.1176/appi.ps.201500149

48. Ibid, pg. 517.

49. Ibid, pg. 520.

50. Ibid, pg. 517.

51. Marine Corps Community Services, "DSTRESS Line," accessed at https://www.usmc-mccs.org/services/support/dstress-line/

52. Ibid.

53. Army Public Health Center, "Suicide Prevention," last edited on August 17, 2020, accessed at https://phc.amedd.army.mil/topics/healthyliving/bh/Pages/SuicidePrevention.aspx

54. Ibid.

55. Real Warriors Campaign, "Tell Me about," accessed on February 15, 2021 at https://www.realwarriors.net/

56. Air Force Resilience, "Department of the Air Force Resilience," access on February 15, 2021, at https://www.resilience.af.mil/Suicide-Prevention-Program/

57. Ibid.

58. Ibid.

59. Navy Personnel Command, "Navy Suicide Prevention Handbook," accessed on February 15, 2021, at https://www.public.navy.mil/bupers-npc/support/21st_Century_Sailor/suicide_prevention/Documents/2019%20Navy%20Suicide%20Prevention%20Handbook.pdf

60. Navy Personnel Command, “Sailor Assistance and Intercept for Life (SAIL),” accessed on February 15, 2021, at https://www.public.navy.mil/bupers-npc/support/21st_Century_Sailor/suicide_prevention/command/Pages/SAIL.aspx

61. Ramchand, Rajeev, Joie Acosta, Rachel M. Burns, Lisa H. Jaycox and Christopher G. Pernin, “The War Within: Preventing Suicide in the U.S. Military,” *RAND Corporation*, 2011, accessed at https://www.rand.org/pubs/monographs/MG953.html

62. Ibid.

63. Ibid.

64. Ibid.

65. US Department of Defense, “Annual Suicide Report Calendar Year 2019,” *Under Secretary of Defense for Personnel and Readiness,* August 20, 2020, accessed at https://www.dspo.mil/asr/

66. Office of the Under Secretary of Defense, “Report on Section 593 of the National Defense Authorization Act for Fiscal Year 2016, (Public Law 114-92),” *Report on Preliminary Mental Health Screenings for Individuals Becoming Members of the Armed Forces,* January 11, 2017.

67. Ibid.

68. Ibid, pg. 20.

69. Ibid, pg. 6.

70. Ibid, pg. 20.

71. Ibid, pg. 20.

72. Ibid, pgs. 5-6.

73. Ibid, pg. 11.

74. Ibid, pg.4.

APPENDIX A

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

ID #: _____ DATE: _____

Over the last 2 *weeks*, how often have you been bothered by any of the following problems?
(use "✓" to indicate your answer)

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite — being so figety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3
	add columns		+	+

(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card). TOTAL:

10. If you checked off *any problems*, how *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?

- Not difficult at all _____
- Somewhat difficult _____
- Very difficult _____
- Extremely difficult _____

A2663B 10-04-2005

PHQ-9 Patient Depression Questionnaire

For initial diagnosis:

1. Patient completes PHQ-9 Quick Depression Assessment.
2. If there are at least 4 ✓s in the shaded section (including Questions #1 and #2), consider a depressive disorder. Add score to determine severity.

Consider Major Depressive Disorder

- if there are at least 5 ✓s in the shaded section (one of which corresponds to Question #1 or #2)

Consider Other Depressive Disorder

- if there are 2-4 ✓s in the shaded section (one of which corresponds to Question #1 or #2)

Note: Since the questionnaire relies on patient self-report, all responses should be verified by the clinician, and a definitive diagnosis is made on clinical grounds taking into account how well the patient understood the questionnaire, as well as other relevant information from the patient.
Diagnoses of Major Depressive Disorder or Other Depressive Disorder also require impairment of social, occupational, or other important areas of functioning (Question #10) and ruling out normal bereavement, a history of a Manic Episode (Bipolar Disorder), and a physical disorder, medication, or other drug as the biological cause of the depressive symptoms.

To monitor severity over time for newly diagnosed patients or patients in current treatment for depression:

1. Patients may complete questionnaires at baseline and at regular intervals (eg, every 2 weeks) at home and bring them in at their next appointment for scoring or they may complete the questionnaire during each scheduled appointment.
2. Add up ✓s by column. For every ✓: Several days = 1 More than half the days = 2 Nearly every day = 3
3. Add together column scores to get a TOTAL score.
4. Refer to the accompanying **PHQ-9 Scoring Box** to interpret the TOTAL score.
5. Results may be included in patient files to assist you in setting up a treatment goal, determining degree of response, as well as guiding treatment intervention.

Scoring: add up all checked boxes on PHQ-9

For every ✓ Not at all = 0; Several days = 1;
More than half the days = 2; Nearly every day = 3

Interpretation of Total Score

Total Score	Depression Severity
1-4	Minimal depression
5-9	Mild depression
10-14	Moderate depression
15-19	Moderately severe depression
20-27	Severe depression

A2662B 10-04-2005

BIBLIOGRAPHY

Air Force Resilience. "Department of the Air Force Resilience." Accessed on February 15, 2021 at https://www.resilience.af.mil/Suicide-Prevention-Program/

Anestis, Michael D., Craig J. Bryan, Michelle M. Cornette, and Thomas E. Joiner. "Understand ing Suicidal Behavior in the Military: An Evaluation of Joiner's Interpersonal-Psycholog ical Theory of Suicidal Behavior in Two Case Studies of Active Duty Post-Deployers." *Journal of Mental Health Counseling.* Jan 2009; 31, 1; ProQuest Central pgs. 60-75.

Army Public Health Center. "Suicide Prevention." Last edited on August 17, 2020. Accessed at https://phc.amedd.army.mil/topics/healthyliving/bh/Pages/SuicidePrevention.aspx

Bryan, Crag J., MM. David Rudd, Evelyn Wertenberger, Neysa Etienne, Bobbie N. Ray-San nerud, Chad E. Morrow, Alan L. Peterson, and Stacey Young-McCaughon. "Improving the detection and prediction of suicidal behavior among military personnel by measuring suicidal beliefs: An evaluation of the Suicide Cognitions Scale." *Journal of Affective Dis orders.* Vol. 159, 15–22, 19 February 2014.

Ellis, Thomas E., and Katrina A. Rufino. "A Psychometric Study of the Suicide Cognitions Scale With Psychiatric Inpatients." *American Psychological Association.* 2015, Vol. 27, No. 1, 82– 89.

Hallensleben, Nina, Heide Glaesmer, Thomas Forkmann, Dajana Rath, Maria Strauss, Anette Kersting, and Lena Spangenberg. "How Is the Presence of Company Related to Thwarted Belongingness in Real Time? Taking a Closer Look at the Conceptualization of the Con struct of the Interpersonal Theory of Suicide." *International Journal of Environmental Research and Public Health.* 2020, 17, 4873. 6 July 2020.

Jamison, Kay R. *Night Falls Fast: Understanding Suicide.* New York, New York: Random House Inc, 1999.

Joiner, Thomas E. *Myths About Suicide.* Cambridge, Massachusetts: Harvard University Press, 2010.

Joiner, Thomas E.. *Why People Die By Suicide.* Cambridge, Massachusetts: Harvard University Press, 2005.

Kessler, Ronald C, Murray B. Stein, MD, Maria V. Petukhova, Paul Bliese, and Robert M. Bossarte. "Predicting suicides after outpatient mental health visits in the Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS)." *Mol Psychiatry*. 2017 April; 22(4):

Khazem, Lauren R., Claire Houtsma, Kim L. Gratz, Matthew T. Tull, Bradley A. Green, and Michael D. Anestis. "Firearms Matter: The Moderating Role of Firearm Storage in the Association Between Current Suicidal Ideation and Likelihood of Future Suicide At tempts Among United States Military Personnel." *Military Psychology.* 2016, Vol. 28, No. 1, 25–33.

Kim, Stephen. "What is Precision Medicine." *Magellan Health Insights.* October 28, 2019. Ac cessed December 16, 2020. https://magellanhealthinsights.com/2019/10/28/what-is-preci sion-medicine/

Louzon, Samantha A., Robert Bossarte, John F. McCarthy, and Ira R. Katz. "Does Suicidal Idea tion as Measured by the PHQ-9 Predict Suicide Among VA Patients." *Psychiatric Ser-vices.* May 2016. Accessed at https://ps.psychia-tryonline.org/doi/pdf/10.1176/appi.ps.201500149

Marine Corps Community Services. “DSTRESS Line.” Accessed at https://www.usmc-mccs.org/services/support/dstress-line/

National Council for Osteopathic Research. “Patient Health Questionnaire (PHQ-9).” Accessed on February 15, 2021, at https://www.ncor.org.uk/wp-content/uploads/2012/12/Patient-Health-Questionnaire.pdf

Navy Personnel Command. “Navy Suicide Prevention Handbook.” Accessed on February 15, 2021 at https://www.public.navy.mil/bupers-npc/support/21st_Century_Sailor/suicide_prevention/Documents/2019%20Navy%20Suicide%20Prevention%20Handbook.pdf

Navy Personnel Command, “Sailor Assistance and Intercept for Life (SAIL).” Accessed on Feb ruary 15, 2021 at https://www.public.navy.mil/bupers-npc/support/21st_Century_Sailor/suicide_prevention/command/Pages/SAIL.aspx

Office of the Under Secretary of Defense. “Report on Section 593 of the National Defense Au thorization Act for Fiscal Year 2016, (Public Law 114-92).” *Report on Preliminary Men tal Health Screenings for Individuals Becoming Members of the Armed Forces.* January 11, 2017.

Patient Health Questionnaire 9 (PHQ-9). Accessed at https://med.stanford.edu/fastlab/research/imapp/msrs/_jcr_content/main/accordion/accordion_content3/download_256324296/file.res/PHQ9%20id%20date%2008.03.pdf

Ramchand, Rajeev, Joie Acosta, Rachel M. Burns, Lisa H. Jaycox and Christopher G. Pernin, “The War Within: Preventing Suicide in the U.S. Military,” *RAND Corporation*, 2011, accessed at https://www.rand.org/pubs/monographs/MG953.html

Real Warriors Campaign. "Tell Me About." Accessed on February 15, 2021 at https://www.real warriors.net/

Selby, Edward A., Michael D. Anestis, Theodore W. Bender, Jessica D. Ribeiro, Matthew K. Nock, M. David Rudd, Craig J. Bryan, Ingrid C. Lim, Monty T. Baker, Peter M. Gutierrez, and Thomas E. Joiner Jr. "Overcoming the Fear of Lethal Injury: Evaluating Suicidal Behavior in the Military through the Lens of the Interpersonal-Psychological Theory of Suicide." *Clin Psychol Rev*. 2010 April; 30(3): 298–307.

US Department of Veterans Affairs. "2020 National Veteran Suicide Prevention Annual Report." *Office of Mental Health and Suicide Prevention.* November 2020. Accessed at https:// www.mentalhealth.va.gov/docs/data-sheets/2020/2020-National-Veteran-Suicide-Prevention-Annual-Report-11-2020-508.pdf

US Department of Defense. "Department of Defense Releases Second Annual Suicide Report." October 1, 2020. Accessed at https://www.defense.gov/Newsroom/Releases/Release/Article/2367917/department-of-defense-releases-second-annual-suicide-report/

US Department of Defense. "Annual Suicide Report Calendar Year 2019." *Under Secretary of Defense for Personnel and Readiness.* August 20, 2020. Accessed at https://www.dspo.mil/asr/

US Department of Veterans Affairs and US Department of Defense. "Clinical Practice Guideline for the Assessment and Management of Patients at Risk for Suicide." 2019. Accessed at https:// www.healthquality.va.gov/guidelines/MH/srb/VADoDSuicideRiskFullCPGFinal5088212019.pdf

US Department of Veterans Affairs and US Department of Defense. "Clinical Practice Guide line for the Assessment and Management of Patients at Risk for Suicide. Provider Summary" 2019. Accessed at https://www.healthquality.va.gov/guidelines/MH/srb/VA-DoDSuicideRiskCPGProviderSummaryFinal5088212019.pdf