Decision Brief: Examination of Mental Health Accession Screening: Predictive Value of Current Measures and Processes
August 7, 2020
Overview

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• Recruits Become Service Members: The Mental Health Continuum
• Paradigm Shift: From Deficit Approach to Leveraging Potential
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• Findings and Recommendations
Neurological/Behavioral Health Subcommittee Membership

- Sonia Alemagno, PhD
- Jonathan Friedman, MD
- Jeremy Lazarus, MD
- Brigid McCaw, MD, MPH, MS
- Stephanie Reid-Arndt, PhD
- Steven Sharfstein, MD, MPA
- CAPT (Ret.) Thomas Uhde, MD
- Alex Valadka, MD
On July 29, 2019, the Assistant Secretary of Defense for Manpower and Reserve Affairs, Performing the Duties of the Under Secretary of Defense for Personnel and Readiness, directed the Defense Health Board (“the Board”) to provide recommendations to the DoD in order to improve mental health accession measures/processes.
The Board should address and develop findings and recommendations on the policies and practices in place to:

- Determine factors, to include historical or current diagnoses or symptoms, that predispose or promote a person to/from poor outcomes under stress of military service including PTSD and suicide.

- Evaluate the predictive validity and effectiveness of psychiatric/psychological assessments and applicability to accession screening.

- Identify stressors and risks inherent in military service that can both positively and negatively influence Service member mental health morbidity.

- Optimize ways to support recruits’ mental fitness.
## Summary of Activities (1/3)

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
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<tbody>
<tr>
<td>September 20, 2019</td>
<td>Kick-off meeting in Falls Church, VA</td>
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<tr>
<td>November 12, 2019</td>
<td>Briefing from Dr. John Oldham on screening for personality disorders</td>
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<tr>
<td>December 9, 2019</td>
<td>DHB support staff visited the Baltimore Military Entrance Processing Station (MEPS), toured the facility, and interviewed staff</td>
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<tr>
<td>December 10, 2019</td>
<td>Briefings from Dr. Diane Williams, Research Psychologist, Naval Health Research Center</td>
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## Summary of Activities (2/3)

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
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| December 13, 2019 | Teleconference with briefings from:  
• Service Medical Waiver Review Authority personnel  
• Ms. Stephanie Miller, Director of Accession Policy for the Office of the Under Secretary of Defense for Personnel and Readiness |
| January 14, 2020 | Briefing on the U.S. Air Force “Behavioral Evaluation and Screening of Trainees (BEST)” Program at Lackland Air Force Base by Dr. Howard Garb and Maj Jeremy Pallas |
| March 10, 2020  | Teleconference to discuss development of background sections                                                                                |
| April 14, 2020  | Half-day teleconference focused on Service resilience programs                                                                            |
## Summary of Activities (3/3)

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
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<tbody>
<tr>
<td>May 12, 2020</td>
<td>Half-day teleconference focused on suicide prevention and restriction of lethal means</td>
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<tr>
<td>May 26, 2020</td>
<td>Teleconference to discuss report development</td>
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<tr>
<td>June 9, 2020</td>
<td>Briefings from SMEs on the use of AI for:</td>
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<tr>
<td></td>
<td>• Health outcome mapping</td>
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<tr>
<td></td>
<td>• Suicide prevention</td>
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<tr>
<td>June 25-26, 2020</td>
<td>Two half-day Teleconference to discuss report development and findings and recommendations</td>
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<tr>
<td>July 14, 2020</td>
<td>Teleconference to discuss report development</td>
</tr>
<tr>
<td>July 28, 2020</td>
<td>Teleconference to discuss report development</td>
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Guiding Principles
• Mental health conditions do not uniformly create risks to readiness.

• DoD requires attention to potential risks to readiness posed by treated vs. unidentified or untreated mental health conditions.

• Organizational policies and culture could be improved to encourage mental health wellness, prevention, and treatment.
Guiding Principles (2/2)

- Determination of success is multifactorial. An approach that is focused only on recruitment but not the career life course of the recruit may be limiting.

- Admissions and retention methodology and strategy have changed in many sectors; there is benefit in evaluating state of the art practices.

- Institutional beliefs and values should be considered when evaluating outcome metrics and incentives.
Background
Today’s recruiting environment is challenging:

• ~33% of 18 year olds meet enlistment standards
• <20% want to serve
• 17% of enlisted Active duty Service members attrite within the first three years of service
  - 2/3 of attrition occurs by the end of the first year
  - ½ within the first 70 days of service
Mental Health Accession

- Mental health accession screening currently takes a “deficit-minded” approach.

- The relationship of mental health conditions to military success is much more complicated than this approach can accommodate.

- Challenges in accession screening make it difficult to identify with confidence those recruits who do not meet the standards.

- Mental health conditions do not uniformly impact readiness. Current accession standards lack this nuance.
Recruits become Service members, yet accession medicine is not integrated with retention medicine. Integration is essential to support the mental health of the force, particularly given the increasing suicide rate in DoD despite dedication of significant resources.
• Given instances of mental-health related career repercussions, which reflect real mission-related safety considerations, Service members are incentivized to keep their mental health needs out of sight.

• Untreated mental health conditions are a potential threat to readiness.

• DoD must do more to determine which mental health conditions, in what circumstances, are likely threats to readiness, and what conditions may be mitigated by other individual or organizational factors.
Accessions Process
MEPS Processing Flow

**Before MEPS**
- PRE-SCREEN: Requests For Medical Records
- Medical Disqualification
- Not Referred to MEPS and Not Accessed

**At MEPS**
- MEDICAL EVALUATIONS: Requests For Additional Information
- Medical Qualification Determination
- Medical Disqualification
- Not Medically Qualified and Not Accessed

**After MEPS**
- ACCESSED
- SMWRA Approves Waiver
- Medical Waivers For Disqualified Applicants
- SMWRA Denies Waiver And Not Accessed

*SMWRA: Service Medical Waiver Review Authority*
## MEPS Mental Health Screening

### Resource

- **DD Form 2807-2** “Accessions Medical Prescreen Report”
- **DD Form 2807-1** “Report of Medical History”
- **Supplemental Health Screening Questionnaire (SHSQ)**
- **Applicant Behavioral Health Interview (the “Omaha-5”)**
Medical Waiver Process

MEDICAL WAIVER PROCESS

MEPS
• Chief Medical Officer (CMO) determines medical qualification IAW DoD6130.03 & UMR 40-1
• Completes DD Form 2808
Submits form to Service liaisons

Service Liaison
• Works directly with applicant on next step if medically disqualified
• May or may not submit waiver recommendation to SMWRA

Service Medical Waiver Review Authority (SMWRA) (RC)
• Evaluates waiver request
• Determines approval of waiver or not for medically disqualifying condition
Accessions Challenges & Complexities
Challenges

• Applicant Self-reporting

• Predicting outcomes based on static measures

• Limited time with mental health providers

• Inconsistent feedback between training commands and USMEPCOM
• Adverse Childhood Experiences (ACEs) are common
• Applicants may not report behavioral health history or diagnoses
• Some do well despite ACEs or diagnosis, others do not
• Waiver research suggests specific diagnoses are not an impediment to readiness in those admitted on a waiver
Recruits Become Service Members: The Mental Health Continuum
In 2018:

- 8.3% of Service members had a behavioral health disorder
- 1.8 million outpatient encounters for behavioral health conditions

Prevalence of Behavioral Health Disorders by Sex and Age, Active Duty Service Members, 2018

N=1,295,000

Age

<table>
<thead>
<tr>
<th>Total</th>
<th>&lt;25</th>
<th>25-34</th>
<th>35-44</th>
<th>45+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>12.8</td>
<td>16.8</td>
<td>11.3</td>
<td>7.7</td>
</tr>
<tr>
<td>Men</td>
<td>7.5</td>
<td>8.7</td>
<td>6.8</td>
<td>7.1</td>
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Annual and Lifetime Prevalence of Behavioral Health Disorders by Sex and Condition, 2018

- Any BH Disorder
- Adjustment Disorder
- Alcohol-related Disorder
- Substance-related Disorder
- Anxiety Disorder
- Bipolar Disorder
- Depressive Disorder
- Psychoses
- PTSD

DoD Health of the Force 2018
Suicide in the Military

- From CY 2013 to 2018, the Active Component suicide rate was 18.5 to 24.8 suicides per 100,000 Service members.

- The greatest proportion of Active Component decedents were enlisted (91.1%), male (93.5%), and less than 30 years of age (67.1%).

- The majority of Active Component decedents died by firearm (60%).

- Less than 3% of all suicide deaths in CY 2018 were attributable to drugs and/or alcohol.

Department of Defense Under Secretary of Defense for Personnel and Readiness, Annual Suicide Report, Calendar Year 2018.
Of the 278 suicide deaths across the Services in Calendar Year 2018:

- 123 occurred in the decedent’s own residence
- 168 suicide deaths involved the use of a firearm
- A personally-owned firearm was used in 155 of the 168 suicide deaths that involved a firearm

Source: Department of Defense Suicide Event Report Calendar Year 2018 Annual Report
## Military Suicide Misconceptions

<table>
<thead>
<tr>
<th>Misconceptions</th>
<th>Facts</th>
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</thead>
<tbody>
<tr>
<td>Deployment increases military suicide risk.</td>
<td>Several studies have shown that being deployed (including combat, length of deployment, and number of deployments) is not associated with suicide risk among Service members.</td>
</tr>
<tr>
<td>The majority of Service members who die by suicide had a mental illness.</td>
<td>The majority of Service members who die by suicide were not diagnosed with mental illness.</td>
</tr>
<tr>
<td>If you remove access to one lethal method of suicide, someone at risk for suicide will replace it with another.</td>
<td>When one method for suicide is removed, someone at risk is unlikely to substitute with a different method.</td>
</tr>
<tr>
<td>Talking about suicide will lead to and encourage suicide.</td>
<td>Talking about suicide provides the other person with an opportunity to express thoughts and feelings about something they may be keeping secret, and/or obtain help and support.</td>
</tr>
<tr>
<td>The military suicide rate is higher than the U.S. general population.</td>
<td>Suicide rates are roughly equivalent for all Components, except the National Guard, after controlling for age and sex (CY 2018).</td>
</tr>
</tbody>
</table>
Common suicide prevention methods focus on:

- Delaying or permanently abandoning the suicide attempt after ideation
- Physically restricting access to lethal means
- Reducing the toxicity of a given method
- Reducing “cognitive access” to suicide
Paradigm Shift: From Deficit Approach to Leveraging Potential
Elements of a Paradigm Shift

- Shift to a “person-ready institution”
- Life course approach to accession
- Enterprise-wide readiness outcomes
- Individual and organizational mediators of readiness
The “Person-Ready Institution”

- A paradigm shift occurring in higher education provides direction for moving beyond the “deficit” approach to applicant success

- “Person-ready Institution”

- Identifying organizational factors that enable or inhibit recruit success
“Rather than study accession medical standards in isolation, medical standards across the continuum of a Service member’s career, including medical standards for retention and deployment, should be analyzed using evidence-based principles.”

-Accession Medical Standards Analysis and Research Activity (AMSARA)
Enterprise-Wide Readiness Outcomes

• Early attrition

• Failure to deploy or complete a deployment

• Receipt of a positive reenlistment indicator

• Career progression
Potential Individual Mediators of Service Member Readiness

- Psychiatric/behavioral health diagnoses at accession
- Measures of individual resilience
### Potential Organizational Mediators of Service Member Readiness

#### Socioecological Model of Resilience

<table>
<thead>
<tr>
<th>Level</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual-level</strong></td>
<td>Positive coping: Positive affect, Positive thinking, Realism, Behavioral control</td>
</tr>
<tr>
<td><strong>Family-level</strong></td>
<td>Emotional ties, Communication, Support, Closeness, Nurturing, Adaptability</td>
</tr>
<tr>
<td><strong>Unit-level</strong></td>
<td>Positive command climate, Teamwork, Cohesion, Belongingness</td>
</tr>
<tr>
<td><strong>Community-level</strong></td>
<td>Belongingness, Cohesion, Connectedness, Collective efficacy</td>
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**Note:** This table presents potential organizational mediators that influence service member readiness. Each level includes specific factors that contribute to resilience at various scales.
### Total Force Fitness Domains

<table>
<thead>
<tr>
<th>Domain</th>
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<tbody>
<tr>
<td>Physical Fitness</td>
</tr>
<tr>
<td>Environmental Fitness</td>
</tr>
<tr>
<td>Medical and Dental Preventive Care Fitness</td>
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<tr>
<td>Nutritional Fitness</td>
</tr>
<tr>
<td>Ideological &amp; Spiritual Fitness</td>
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<tr>
<td>Psychological Fitness</td>
</tr>
<tr>
<td>Social Fitness</td>
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<tr>
<td>Financial Fitness</td>
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Supplement Current Processes
Improving Assessment of Fit

• Leverage the 180-day entry level period for bi-directional evaluation of fit
  • Off-ramp

• Expand second-round screening during Basic Military Training from the Air Force to the Enterprise

• Assess validity and reliability of current screening tools
Improving Prevention of Suicide

- Means restriction
- Personal firearm safety
Findings and Recommendations
• Mental health accession screening takes a “deficit-minded” approach: a recruit with a specific mental health history, condition, or diagnosis fails to meet the qualification standards that define the acceptable recruit.

• Evidence suggests that the relationship of mental health conditions to military success is more complicated than this approach can accommodate.

• The impact of this discrepancy is less noticeable in a robust recruiting environment. Today, however, only one in three 18 year olds can meet the enlistment standards and fewer than one in five wants to serve.
1. Work to redefine the current paradigm of mental health readiness, using examples from other organizations, to incorporate both individual and organizational correlates of success. Consider DoD’s socio-ecological model of resilience as a starting point and develop an organizational version of Total Force Fitness to identify and track organizational variables.
Finding 2

• Challenges and complexities inherent in accession screening make it difficult to identify with confidence those recruits who do not meet the standards.

• There is a “wide zone of clinical uncertainty” within the recruit population. Some recruits may have a history of mental or behavioral health conditions, trauma, and/or ACEs and do well, while others do poorly.

• Some of these recruits enter the military on a behavioral health medical waiver and do well, while others do not. Waiver studies are not systematically conducted on all disqualifying diagnoses, but a small number of studies show that the majority of Service members who are admitted on a waiver are successful in the military.
2. Develop a mental health research strategy that includes a set of Enterprise-wide, measureable readiness outcomes that are tracked as a function of individual and organizational mediators across a Service member’s career, beginning at accession. The Department should include an evaluation of the reliability and validity of current disqualification criteria to determine the relationship between specific diagnoses and career outcomes and conduct waiver studies on all disqualifying diagnoses. Recommendations 9, 10, and 11 discuss additional variables for inclusion in a comprehensive research strategy.
• Current screening methods are beset by challenges and complexities.

• Screening tools used at accession are thought to be clinically useful, but are not scientifically validated.

• Co-located mental health expertise at Military Entrance Processing Stations (MEPS) has been shown to improve detection of applicant mental or behavioral health issues during screening.
• There is interest in finding ways to access more objective applicant data.

• Contextual and environmental factors affect applicant and recruit disclosure. The time at which a screening tool or test is administered during the accessions process appears to be an important factor affecting predictive validity.
3. Supplement static prediction with existing opportunities for real-time observation. Utilize the first 180 days of a Service member’s career for enhanced screening for pre-existing mental health disorders and common disqualifying conditions. Include embedded mental health providers in training units for closer observation during the training period.

4. Further scientific validation of screening tools, including the Omaha-5, should be done to determine the extent to which they are predictive of future mental health diagnoses and related career outcomes.
5. Create opportunities for on-site psychiatric and/or mental health staff at MEPS who can conduct applicant mental health assessments where possible, or innovative solutions to better integrate mental health providers who provide assessments in complex situations, such as a centralized mental health team accessible via telemedicine that are available to all MEPS locations.

6. Replicate the Air Force’s BEST Program across the Services. DoD should conduct a second round of mental health screening during the first 72 hours of Basic Military Training (BMT) across all Services.
Recommendation 7

7. Prior to instituting opportunities to obtain objective information on an Enterprise scale, further evaluate the risks and benefits of allowing access to an applicant’s pediatric health record data, specifically related to mental health conditions.
Finding 4

- Current quota-based recruiting incentives impact the mental health accessions process.
8. Revise recruiting metrics and incentives to encourage retention. A pilot program of revised evaluation metrics would inform effectiveness of this revision. For example, evaluate performance based on number of recruits retained through a period, instead of number of recruits successfully entering the Armed Forces. Consider innovative recruiting strategies to boost likelihood of obtaining healthy applicants.
Finding 5

• No formal feedback loops currently exist between recruiters, MEPS personnel, and the Services to communicate outcomes of the recruiting, accession, and waiver processes.
Recommendation 9

9. Establish a feedback loop of outcome data to better inform recruiters, MEPS personnel, and waiver authorities on the results of their methods and processes. This data should include early attrition, mental health diagnoses during the entry-level period, and deployability. Data should be obtained as part of the research strategy recommended above.
• Seventeen percent of enlisted Active duty Service members attrite within the first three years, with approximately 64% attriting by the end of the first year and 52% within the first 70 days of service. Comprehensive data on the reasons why Service members separate from service during the entry-level period is currently unavailable.

• Adjustment Disorder is the most frequent behavioral health diagnosis given to active duty Service members. However, the context(s) in which this diagnosis is given is not well understood.
10. Study the reasons why people separate from service during the entry-level period and use these findings to inform enhanced mental health screening and evaluation of personal characteristics that may contribute to attrition in this period. Data should be obtained as part of the research strategy recommended above.
11. Study the context in which the Adjustment Disorder diagnosis is made. If poor fit drives a significant portion of Adjustment Disorder diagnoses, consider whether it is more cost-effective and beneficial to ease the burden of separation for recruits with this diagnosis. Data should be obtained as part of the research strategy recommended above. Easing the burden of separation for DoD could entail extending the period in which entry-level separation can occur. Easing the burden for recruits could also include instituting an “off-ramp” mechanism allowing them to leave during a certain time period.
The scientific literature overwhelmingly demonstrates that lethal means restriction is the most effective method to prevent suicide in both civilian and military populations. The Israeli Defense Force’s (IDF) Suicide Prevention Program provides evidence of the effectiveness of firearm restrictions in the prevention of suicide by military personnel. The majority of Service member suicides are carried out using a personally-owned firearm.
• Very little data is available on risk factors related to personal firearm ownership or safety practices.

• Commanders are able to restrict personal firearms to a certain extent by requesting a Service member surrender their personal firearm or restricting them from leaving post during a mental health crisis and can initiate a command-directed behavioral health evaluation to assess the Service member’s current risk level.
12. Address access to firearms as a manageable health risk factor equivalent to tobacco, automobile use, and alcohol use.

13. Add firearm ownership and safety questions to the annual Periodic Health Assessment.

14. Consider registration of personal firearms of military personnel to provide additional information about possible lethal means restriction.
15. Maximize the ability and training of Commanders to intervene to separate lethal means from suicidal Service members.

16. Implement a consistent approach across the DoD to train and support Commanders’ ability to restrict personal firearms when there is concern that a Service member is a threat to themselves or others.
Questions ?