

THE HEALTH OF THE FORCE: MENTAL HEALTH CARE  
IMPLICATIONS FOR READINESS & STRATEGIC PLANNING

by  
Kathryn Grant

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## **Abstract**

This thesis examines the current state of mental health care in the military and makes recommendations for new policymaking strategies. First, it investigates the financial cost and cost in military readiness associated with mental health issues among service members – specifically depression and Post-traumatic Stress Disorder – and finds that an inadequate plan for preventing, identifying, and treating mental health issues poses a national security risk. Second, it examines the effectiveness of the Embedded Behavioral Health Provider program and finds it promising, if unproven. Third, it analyzes the data on mental health among remote piloted aircraft units in the United States Air Force in order to make recommendations relevant to future service members who will likely operate in a combat environment that is designed to physically remove them from harm's way. Data in all three lines of inquiry are limited and insufficient, so further study will be required to make high confidence assessments. However, this paper does recommend integrating consideration of mental health care into military strategic planning because it will be to the benefit of service members, their commanding officers, and the Department of Defense to account for and counter inevitable mental, emotional, and behavioral health issues on the front end of future missions.

**Thesis Committee:** Dr. Mark Stout, Dr. Sarah O'Byrne

**Thesis Readers:** Dr. Robert Haffa, Dr. Kevin Woods

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## **Introduction**

Threats to personnel and readiness constitute a major challenge to the U.S. military today and shoring up the health of the force is an increasingly important way to strengthen the military's effectiveness and resiliency. One major threat to the health of the force is the failure to adequately address mental, behavioral, and emotional health issues among U.S. active duty and reserve components. For the purposes of this paper, we will define mental health issues as neuroses and psychoses such as conditions like PTSD, behavioral health issues will encompass both mental health issues as well negative actions like substance abuse, and emotional health issues are feelings and attitudes that impede a high quality of life. The Afghanistan and Iraq Wars have strained service members by exposing them to trauma – often through frequent, repeated deployments – which has manifested in a higher rate of Post-Traumatic Stress Disorder (PTSD), depression, substance abuse, and a range of related conditions, all of which affect individuals' ability to serve effectively and are detrimental to the organization. New technologies have failed to mitigate the trauma of combat, and physical medicine has outpaced our ability to treat mental health issues.

PTSD has been a problem as long as wars have been fought. Historical and religious works such as the Book of Job and texts by the Greek historian Herodotus reference afflictions most likely akin to what we now call PTSD.<sup>1</sup> In the 1600s and 1700s it was called “Nostalgia” and “Homesickness”; Spaniards termed it “estar roto” – to be broken.<sup>2</sup> In the American Civil War, men were diagnosed with “Soldier's Heart”

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<sup>1</sup> Anders, Charlie Jane, “From ‘Irritable Heart’ to ‘Shellshock’: How Post-Traumatic Stress Became a Disease,” *io9.com*: April 4, 2012, <http://io9.com/5898560/from-irritable-heart-to-shellshock-how-post-traumatic-stress-became-a-disease>, accessed May 2, 2015.

<sup>2</sup> Ibid.

on account of the feelings of anxiety and accompanying racing of the heart.<sup>3</sup> In World War I the condition became known as “Shell Shock” and by World War II (WWII) the diagnosis was “Combat Fatigue.”<sup>4</sup> During the Korean and Vietnam Wars we called it “Stress Response Syndrome,” and as of 1980 PTSD became the term recognized in the *Diagnostic and Statistical Manual of Mental Disorders*.<sup>5</sup> While the manifestations of PTSD have changed based on the way men and women deploy and the technology of warfare, it has been part of the military experience as a human response to trauma dating back to the beginnings of civilization.

Modern day service members face different challenges than just a few decades ago; for example, a service member deploying during WWII would almost always stay at or near the front until combat ended in their theater, unless they were injured, unlike today where units are scheduled to serve tours in combat areas and then return home, perhaps to redeploy to the front again when their replacements come home. During WWII, 73% of service members were deployed overseas, for an average of 16 months.<sup>6</sup> Similarly, by 2011 the U.S. Army, which has provided more service members for deployment to Iraq and Afghanistan than the other services combined, had deployed 74% of active duty soldiers to one of those combat zones.<sup>7</sup> The average length of deployment to Iraq and Afghanistan across the services and components was 7.67 months, with active

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<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

<sup>6</sup> “By the Numbers: The US Military,” The National WWII Museum, New Orleans, <http://www.nationalww2museum.org/learn/education/for-students/ww2-history/ww2-by-the-numbers/us-military.html>, accessed December 1, 2015.

<sup>7</sup> Dave Baiocchi, “Measuring Army Deployments to Iraq and Afghanistan,” The RAND Corporation, [http://www.rand.org/content/dam/rand/pubs/research\\_reports/RR100/RR145/RAND\\_RR145.pdf](http://www.rand.org/content/dam/rand/pubs/research_reports/RR100/RR145/RAND_RR145.pdf), accessed December 1, 2015, 6. Note that it is difficult to integrate data across the services and reserve components; today’s U.S. Army active component data is more straightforward to compare with WWII era deployments based on percentage.

component U.S. Army deployments averaging 9.66 months, and shorter average deployments for those who deployed multiple times.<sup>8</sup> The total force size is much smaller today than in the 1940s when the draft was in full effect, but this comparison demonstrates that data drawn from the relevant military population in the WWII era has some pertinence to today's service members' experiences, while also differing in some key aspects.

The question of the technology of war also plays a role in the pervasiveness and severity of PTSD; close-up, personal experiences and bigger, louder explosions can all change a person's ability to process trauma. Sometimes distance is even insufficient to blunt that trauma; drone operators often bear witness to disturbing events and feel their impact "as though on the ground."<sup>9</sup>

Today, up to 20% of returning veterans are diagnosed with PTSD at the end of their deployment, however it is estimated that only 23-40% of those returning service members who screen positive for a probable mental health disorder seek help in a timely manner.<sup>10</sup> In order to maintain a ready force, it is necessary to address the gap between the number of service members and veterans who suffer "invisible wounds" and those who are treated for these injuries. Mental and emotional health can have just as much

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<sup>8</sup> Carolyn Fulco, et al, "Returning Home from Iraq and Afghanistan: Assessment of Readjustment Needs of Veterans, Service Members, and Their Families," Institute of Medicine of the National Academies, The National Academies Press, Washington, DC, 2013, [http://www.ncbi.nlm.nih.gov/books/NBK206864/pdf/Bookshelf\\_NBK206864.pdf](http://www.ncbi.nlm.nih.gov/books/NBK206864/pdf/Bookshelf_NBK206864.pdf), accessed December 1, 2015, 40.

<sup>9</sup> Sara Reardon, "I spy, with my faraway eye," *New Scientist*, January 26, 2013, Vol. 217, Issue 2901, 47.

<sup>10</sup> Beau Kilmer, et al, "Invisible wounds, visible savings? Using microsimulation to estimate the costs and savings associated with providing evidence-based treatment for PTSD and depression to veterans of Operation Enduring Freedom and Operation Iraqi Freedom," *Psychological Trauma: Theory, Research, Practice, And Policy* Vol. 3, no. 2 (June 2011): 201.



influence on force readiness as physical health and often its effects are hidden due to the difficulties of diagnosing and treating these hard to detect issues.

The U.S. military's ability to adapt its policies in response to the mental health challenges faced by service members will be critical to its capacity to respond to other threats. A military in which individuals cannot or do not seek medical care for mental health will be less ready to deploy and will undertake its tasks less effectively.

Additionally, while warfighting has changed to reflect the priority placed on minimizing casualties through the adoption of remote capabilities such as drone strikes and cyber attacks, this does not necessarily mitigate the emotional toll of combat. Despite the innovations meant to remove service members from harm's way, risks to their emotional health will persist in future operations. Projections place the percentage of drone pilots among all U.S. Air Force pilots growing to almost 13% by Fiscal Year 2017.<sup>11</sup>

This paper will examine the threat to national security posed by an inadequate strategy for preventing, identifying, and treating mental, behavioral, and emotional health issues in the military. The first chapter, "The Cost of Inaction," discusses the financial cost and the toll on military readiness exacted by the inability to decrease risks of mental health consequences and assist those service members with behavioral health issues. The second chapter, "The Case for Embedded Behavioral Health Providers," focuses on one policy that could improve access to mental health care for service members. The third chapter, "Challenges for the Force of the Future," considers military mental health in the

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<sup>11</sup> Based on September 2015 Air Force demographics via the Air Force Personnel Center, "Air Force Military Demographics," <http://www.afpc.af.mil/library/airforcepersonnel demographics.asp>, accessed December 1, 2015, and Colonel Bradley T. Hoagland, "Manning the Next Unmanned Air Force: Developing RPA Pilots for the Future," Center for 21st Century Security and Intelligence, The Brookings Institution, August 2013, [http://www.brookings.edu/~media/Research/Files/Papers/%202013/08/06%20Air%20Force%20Drone%20Pilot%20Development%20Hoagland/Manning%20Unmanned%20Force\\_FINAL\\_08052013.pdf](http://www.brookings.edu/~media/Research/Files/Papers/%202013/08/06%20Air%20Force%20Drone%20Pilot%20Development%20Hoagland/Manning%20Unmanned%20Force_FINAL_08052013.pdf), accessed December 1, 2015, iv.

context of modern trends in technology and tactics and demonstrates that it will be increasingly important to consider the mental health toll on service members as combat conditions continue to evolve.

These three chapters together build the case for adapting the Department of Defense (DOD) response to behavioral health challenges. Improving measures to identify those at risk, build resiliency, and diagnose and treat mental health issues in a timely manner will benefit the organization and the individual service members. The claim of this paper is straightforward but impactful: it is worth it for the DOD to invest in the organizational overhaul required to adequately address military psychological health challenges because it is fiscally prudent, it will protect readiness, and it will continue to be relevant even as the battlefield changes.

Much of the existing literature is written with a view to encourage further study. This is very much consistent with my analysis. Simply put, there are insufficient data available to properly quantify the problem, prescribe evidence based solutions, or evaluate the approaches being tested. The literature does point to two main problems: access to mental health care in military settings varies drastically, and the stigma associated with needing it is still pervasive. The DOD has, in recent years, recognized the importance of improving the treatment options available and the military culture's awareness and acceptance of these issues, but the effectiveness of these adjustments is difficult to measure.

Finding the ties between service members' mental health and military readiness is hardly novel, but I believe my work contributes to the existing scholarship by building a case for integrating mental health care into the organization both operationally and from a

planning perspective. The DOD would be better able to accomplish its missions if it equipped its service members with better tools for combatting mental health issues. Because the military is charged with providing a public good – the security of the nation – it makes sense to likewise equip those service members who transition to veteran status with the resources they need to overcome mental health challenges so they can leverage their skill sets to the benefit of society.

Current scholarship, while limited, is fairly unified in identifying stigma as a major barrier to mental health care. It is less unified in assessing whether current efforts by DOD to reduce the stigma associated with these conditions are effective. Military sources tout the new command emphasis on open discussion and making treatment available, while academic studies are hindered by the lag in available data and researchers still see a pervasive hesitance within the military to bring these issues to light. I believe strides have certainly been made in this area – for example, WWII’s veterans rarely, if ever, discussed the emotional toll of their service, so in comparison today’s relative openness represents progress – but the emphasis on stoicism in military culture is far from extinct, with all its benefits and drawbacks, and can be damaging to efforts to research, diagnose, and treat mental health conditions.

One major area of disagreement in research to date is the extent to which the operators of “remote-piloted aircraft” (RPAs, Unmanned Aerial Vehicles (UAVs), or drones) experience mental health problems related to their service. Most quantitative studies have thus far indicated that the incidence rate of PTSD in this group is significantly lower than in those returning from a theater of combat operations. However, many caution that there is an especially high disincentive to report such issues

within this community related to concerns about career progression and the possibility of being altogether disqualified from service with such a diagnosis. Some researchers posit that this is a self-compounding problem because it also manifests in a reluctance to seek help or to seek it from those who, like chaplains, may be able to give some aid but lack the full spectrum of treatment options that a medical professional would be able to access. While the incident rate of PTSD within the virtual warrior community is debatable, there is general consensus that psychological distress is a problem to varying extents for these operators and that the lifestyle of drone operators in the continental United States (CONUS) poses unique mental, behavioral, and emotional health challenges.

This paper is organized around the need to change a reactive stance to a proactive one. It begins with a discussion of why it is in DOD's interest to pursue solutions to the mental health issues that service members face today and will continue to face in the future. Of course this is important on the human level, but failing to address the problem is also financially costly and has a toll on readiness. After these organizational motivations for mitigating mental health issues through reducing stigma and increasing access to care are established, the Embedded Behavioral Health Providers (EBHP) program – a model in which mental health professionals are assigned to a specific unit to enhance accessibility and continuity of care – will be posed as one aspect of the solution. It was designed to tackle both major hurdles to improving military mental health care. Finally, we will consider the question of military mental health in the context of new technology and new warfighting techniques. Strategically, the use of drones and other technologies that keep operators out of the line of fire have many selling points, but the

remote nature of these capabilities may cause us to overlook the emotional cost of combat that remains even when the physical and financial costs are greatly diminished.

These three sections take on different facets of a broad and multidimensional problem. In addition to the previously identified barriers to care, there are also barriers to exposing and analyzing the issue. The dearth of quantitative data on more recent developments, such as the EBHP model and drone operator emotional health, makes it difficult to analyze the effectiveness of various policies. Yet this paper will argue that the information we have at hand is sufficient to support making certain adaptations in order to improve mental health outcomes among service members.

Another barrier to understanding the problem is that, alongside all the benefits of military culture such as the discipline and leadership qualities it builds, there is a downside to the emphasis on strength and stoicism. Mental and emotional health problems are difficult to diagnose unless severe, and so detection efforts often rely on the individual to self-identify. In a community where such a health problem may be perceived as weakness or have negative career implications, many will opt to deal with the issue silently. This is why initiatives aimed at reducing the stigma associated with mental health issues will be a critical part of the path forward. In one famous example, General George S. Patton actually slapped and berated two separate “cowards” who were in the hospital for combat fatigue. He sent a memo to his commanders saying that “[s]uch men are cowards and bring discredit on the army and disgrace to their comrades, whom they heartlessly leave to endure the dangers of battle,” and instructing them to court-martial those not willing to fight.<sup>12</sup> With that kind of precedent, it is no wonder that

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<sup>12</sup> Martin Blumenson, *The Patton Papers: 1940-1945*, Da Capo Press, 1996 (originally published by Houghton Mifflin, 1974), 333.

soldiers and other service members have not wished to inform their commanding officers of mental health issues.

What is clear is that there is no single or simple policy fix to the interrelated issues stemming from mental health issues and mental health care in the military, and this paper will not be able to offer a comprehensive solution. It will demonstrate the significance of the health of the force for readiness and national security, illustrate the impacts of addressing – or failing to address – the mental health issues facing service members, and examine the implications of the mental health toll of modern combat for strategy and planning. These considerations will show that the military must continue and augment its commitment to integrating access to mental and behavioral health care at the operational level in order to better fulfill its mission.

## **Literature Review**

### ***Complicated Variables***

One challenge with studying mental health is that it is difficult to isolate the factors that aggravate or alleviate a condition when various stressors tend to compound one another. Research led by Robert M. Bray calls these “cross-cutting domains”: multiple, interconnected and possibly inseparable issues that have individual and combined impacts on the health and effectiveness of the force.<sup>13</sup> For example, the effects of Traumatic Brain Injury (TBI) and Post-Traumatic Stress Disorder (PTSD) are often indistinguishable because there is such a high rate of comorbidity between the two and because the incidence of concussion seems to contribute to the likelihood of suffering from PTSD.<sup>14</sup> Substance abuse can be triggered by depression or stress, and it can be difficult to disaggregate the effects on productivity and readiness of behavioral health issues like this as well.<sup>15</sup>

As Bray notes, substance abuse and mental and physical health problems interact with military-specific challenges like deployment, combat experience, distance from loved ones, risk, and reintegration upon return in ways that impact the sufferers’ ability to do their jobs and therefore take a toll on the military’s overall productivity and readiness.<sup>16</sup> Modern combat conditions and the unique demands on the contemporary military workforce contribute to these issues and provide a unique background against

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<sup>13</sup>Robert M. Bray, Laurel L. Hourani, Jason Williams, Marian E. Lane, and Mary Ellen Marsden, *Understanding Military Workforce Productivity: Effects of Substance Abuse, Health, and Mental Health*, Springer Science+Business Media: New York, 2014, v.

<sup>14</sup>UPMC Press Release, “UPMC/Pitt Researchers Find PTSD-Concussion Link in Military,” August 16, 2012. <http://www.upmc.com/media/NewsReleases/2012/Pages/PTSD-Concussion-Link-in-Military.aspx>

<sup>15</sup>Bray et al, *Understanding Military Workforce Productivity: Effects of Substance Abuse, Health, and Mental Health*, 7.

<sup>16</sup>Ibid, v.

which to analyze them. Mental health and related stressors impact non-military organizations as well, but few work environments have comparable influence over total workforce fitness, nor do many work environments make comparable demands on their workers.

Another challenge is the difficulty in establishing a baseline for mental health issues among service members. The military uses three methods to screen incoming service members for “psychological abnormalities”: a test called “the Armed Service Vocational Aptitude Battery (ASVAB) which was introduced in 1968, the attainment of a high school diploma (significant predictor for finishing an enlistment term), and a general psychological evaluation in the Military Entrance Processing Station (MEPS).”<sup>17</sup> These test results could indicate that an incoming service member is unfit for duty and would ideally rule out service members with preexisting conditions that would impact their ability to perform their duties. Additionally, service members must fill out Pre-Deployment Health Assessments before they deploy, but the aggregate results are not publically accessible and they consist of short questionnaires in comparison to the more robust Post-Deployment Health Assessments, which include much more detailed questions on mental health.<sup>18</sup> Thus, no reliable baseline of mental health disorders has been established for those service members who have not deployed.

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<sup>17</sup> Todd C. Leroux, “U.S. Military Discharges and Pre-existing Personality Disorders: A Health Policy Review,” *Administration and Policy in Mental Health and Mental Health Services Research*, Springer Science + Business Media New York, November 7, 2014, <http://blogs.uw.edu/btrc/files/2014/12/Leroux-2014-US-military-discharges-for-PDs.pdf>, accessed December 3, 2015, 2.

<sup>18</sup> Army.mil News, “Deployment Health Assessment Builds Resilience,” <http://www.military.com/deployment/deployment-health-assessment-builds-resilience.html>, accessed December 3, 2015.



## ***Military Readiness***

According to the Chairman of the Joint Chiefs of Staff (CJCS) *Guide to the Chairman's Readiness System*, readiness is defined as, “the ability of U.S. military forces to fight and meet the demands of the [National Military Strategy (NMS)].”<sup>19</sup> The same document mentions Health of the Force issues as a readiness priority, saying, “People are the foundation of readiness,”<sup>20</sup> but neglects to elaborate on how problems pertaining to the health of the force are taken into account in any of the Department of Defense (DOD)’s measures of readiness. Presumably it would fall into several areas including operational or combat readiness, which requires that personnel are “available and qualified to perform assigned missions and functions,”<sup>21</sup> and the unit readiness and sustainability components of military capability – that is, “the ability to achieve a specified wartime objective”<sup>22</sup> – because both these aspects depend on “maintaining those levels of ready forces... necessary to support military effort.”<sup>23</sup> On a basic level, the health of service members clearly affects military readiness because any failure to meet physical and mental health standards results in fewer deployable or operational troops. However, these standards can be hard to enforce when diagnostic and detection capabilities are lacking, as they are in the field of mental health.

A situation in which those experiencing behavioral health difficulties remain part of the workforce without diagnosis and without receiving the care they need will impact productivity and readiness in a different way. For example, Steven Walker, who studied

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<sup>19</sup> CJCS, *CJCS Guide to the Chairman's Readiness System/CJCS Guide 3401D*, Department of Defense: 15 November 2010, accessed 13 July 2014, [http://www.dtic.mil/cjcs\\_directives/cdata/unlimit/g3401.pdf](http://www.dtic.mil/cjcs_directives/cdata/unlimit/g3401.pdf), 1.

<sup>20</sup> *Ibid*, 30.

<sup>21</sup> *Ibid*, A-2.

<sup>22</sup> *Ibid*, A-1.

<sup>23</sup> *Ibid*, A-2.

mental health consequences experienced by British troops who served in Iraq and Afghanistan, notes that “screening for mental health morbidity and vulnerability has been used in a number of contexts prior to recruitment, as well as pre- and post-deployment [but] the evidence suggests that it has limited value.”<sup>24</sup> Thus, even when efforts are made to identify and support (or exclude from active duty) vulnerable service members, current diagnostic methods are insufficient to identify those at risk or in need.

### ***Stigma***

One factor that impacts the military’s ability to identify at risk individuals, treat the issue, and shore up the workforce against a staffing-related decrease in readiness, is the stigma associated with mental health issues that discourages those affected from seeking treatment. Dror Ben-Zeev’s team examined this question and found that “the US military has a history of encouraging and modeling active label avoidance,” whereby an individual avoids treatment so as not to be perceived as crazy.<sup>25</sup> They concluded that stigma-change programs are needed to educate service members and encourage them to seek assistance when needed.<sup>26</sup> Additionally, Dawne Vogt led research to examine stigma as a barrier to mental health care for veterans, and noted that the possibility of “negative career consequences if supervisors or coworkers know about mental health problems is often a valid concern for military personnel, given that commanding officers

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<sup>24</sup> S. Walker, "Assessing the mental health consequences of military combat in Iraq and Afghanistan: a literature review," *Journal Of Psychiatric & Mental Health Nursing* 17, no. 9 (November 2010), 793.

<sup>25</sup> Ben-Zeev, Dror, et al, "Stigma of mental illness and service use in the military," *Journal Of Mental Health* 21, no. 3 (June 2012), 267.

<sup>26</sup> *Ibid*, 264.

may use medical records to inform decisions about whether a service member is fit to perform specific job responsibilities.”<sup>27</sup>

Recently, the consequences of reporting mental health disorders were starkly illustrated by a report that found that since 2009 the U.S. Army “has ‘separated’ 22,000 soldiers for ‘misconduct’ after they came back from Iraq and Afghanistan and were diagnosed with mental health problems or TBI.”<sup>28</sup> This is despite a 2009 Congressional edict that forbids such dismissals if the underlying cause is related to a service-related mental health issue.<sup>29</sup> When these diagnoses have such clear consequences for one’s career regardless of measures taken to reduce stigma at levels as high as the U.S. Congress, it is no wonder that service members often opt to suffer in silence.

Creating a more open, discursive environment in which service members feel free to discuss mental health issues with their supervisors could help the military deal with the inherent readiness and productivity challenges strategically and efficiently. More effective stigma-change initiatives are needed at all levels and in each branch of the military.

### ***Unique Contemporary Conditions***

Modern combat conditions, such as those experienced by service members in Iraq and Afghanistan, not only have unique readiness requirements, they also take a unique toll on service members. The stressors of fighting in these environments and conducting counterinsurgency (COIN) operations are mentally and physically extreme. Charmaine

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<sup>27</sup> Vogt, Dawne, et al, "Endorsed and Anticipated Stigma Inventory (EASI): A tool for assessing beliefs about mental illness and mental health treatment among military personnel and veterans," *Psychological Services* 11, no. 1 (February 2014), 111.

<sup>28</sup> Daniel Zwerdling, “Missed Treatment: Soldiers With Mental Health Issues Dismissed for ‘Misconduct,’” *National Public Radio*, October 28, 2015, [http://www.npr.org/2015/10/28/451146230/missed-treatment-soldiers-with-mental-health-issues-dismissed-for-misconduct?utm\\_medium=RSS&utm\\_campaign=theimpactofwar](http://www.npr.org/2015/10/28/451146230/missed-treatment-soldiers-with-mental-health-issues-dismissed-for-misconduct?utm_medium=RSS&utm_campaign=theimpactofwar), accessed October 28, 2015.

<sup>29</sup> Ibid.

Tate's team conducted a study of "breachers" ("a unique military and law enforcement population ... routinely exposed to low-level blast (LLB) during training and operations,"<sup>30</sup> the kind of activity essential to and frequently deployed during COIN operations) and found that exposure to this repetitive LLB leads to "cognitive impairments" analogous to mild TBI.<sup>31</sup> Walker found that the operations in Iraq and Afghanistan had overstretched British military personnel, resulting in "psychiatric casualties" – combat veterans with mental health issues that correlate with "higher rates of homelessness, alcohol abuse, domestic violence, relationship breakdown and criminality."<sup>32</sup>

Kerry J. Ressler and Eric B. Schoomaker looked at another piece of the military mental health question by examining the Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS), which was undertaken in response to rising suicide rates among soldiers.<sup>33</sup> First, they characterize current military conflict conditions as "unlike any previously faced in the modern era."<sup>34</sup> They attribute this to the all-volunteer force that is more likely to be called back for multiple tours in quick succession, a discontinuous battlefield and asymmetrical combat, indirect violence and civilian casualties, and new weapons that produce injuries such as TBI, "which exacerbate and confound psychological injuries."<sup>35</sup> Their concern is that our capacity for treating mental

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<sup>30</sup> Tate, Charmaine M., Kevin K. W. Wang, Stephanie Eonta, Yang Zhang, Walter Carr, Frank C. Tortella, Ronald L. Hayes, and Gary H. Kamimori, "Serum Brain Biomarker Level, Neurocognitive Performance, and Self-Reported Symptom Changes in Soldiers Repeatedly Exposed to Low-Level Blast: A Breacher Pilot Study," *Journal of Neurotrauma* 30: October 1, 2013, 1620.

<sup>31</sup> *Ibid*, 1629.

<sup>32</sup> S. Walker, "Assessing the mental health consequences of military combat in Iraq and Afghanistan: a literature review," *Journal Of Psychiatric & Mental Health Nursing* 17, no. 9 (November 2010), 791, 794.

<sup>33</sup> Kerry J. Ressler and Eric B. Schoomaker, "Army STARRS: A Framingham-Like Study of Psychological Health Risk Factors in Soldiers," *Psychiatry* 77, no. 2 (2014 Summer 2014), 120.

<sup>34</sup> *Ibid*, 122.

<sup>35</sup> *Ibid*, 122.

health issues arising from conflict has not kept pace with physical medicine,<sup>36</sup> and they relate the increased survival rate for those with serious injuries (who would likely not have survived during previous wars) to the observed increase in suicide and suicidal behavior<sup>37</sup>. One question that Ressler and Schoemaker raise that may be impossible to determine definitively is to what extent mental health outcomes following combat zone service is predetermined by preexisting behavioral health issues versus the individual's exposure to trauma.<sup>38</sup> The Army STARRS study identified pre-enlistment mental health issues as "predictors of post-enlistment suicide attempts,"<sup>39</sup> but the variables here are complicated and interconnected in such a way that it is impossible to say if either factor is sufficient to explain the outcome.

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<sup>36</sup> Ibid, 122.

<sup>37</sup> Ibid, 123.

<sup>38</sup> Ibid, 123.

<sup>39</sup> Ibid, 126.

## **Chapter I: The Cost of Inaction**

### **I. Introduction**

This chapter will address how mental health issues and related stressors impact service members and the United States military's ability to pursue its mission. Personnel and readiness issues have recently been in the news as the wars in Iraq and Afghanistan have drawn down and the military continues to transition away from the challenges of wartime and pivot to the types of long-term concerns that are set aside during conflict. This includes a slew of issues from mental health to sexual assault to budgetary concerns about the increasing cost of compensation, all of which could be exacerbated by war either due to trauma, the environment and prevailing attitudes during deployment, or simply because being on a wartime footing requires different types and levels of staffing. During a time of transition it is important to determine priorities and be cognizant of areas that can be improved and made more efficient so that the force can be modernized and responsive to current threats.

As the military prioritizes today's challenges, better understanding of the cost of untreated or misunderstood mental health issues within the armed forces will help leadership create effective policies that appropriately address mental health issues as a threat to manpower and readiness. In part, the military needs to regroup from wartime<sup>40</sup> and move toward different models and structures that reflect its new missions and their requirements. Part of that effort should be to examine how the military can best support

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<sup>40</sup> Though, of course, at the time of this writing "kinetic action" has resumed in Iraq and Syria in response to the threat of the Islamic State of Iraq and the Levant (ISIL) and this has the potential to be a new long-term commitment for U.S. forces according to the President's remarks on August 8, 2014. Thus far it appears it will be a different kind of engagement than the previous deployment to Iraq, however, so its impacts on military resources and personnel remain to be seen. Exactly what the nature of this engagement will be is still being debated as of December 2015 so it remains difficult to describe its possible impact on service members.

its personnel so as not to lose a percentage of its qualified and experienced workforce or suffer a related decrease in productivity. Given the challenges this generation of veterans has faced due to the type of combat they have been exposed to and the resulting physical and psychological injuries, mental health issues continue to pose a threat to the health of the force and must be evaluated in terms of how they are impacting the effectiveness of the force. Measuring that impact may not be fully possible quantitatively, but garnering a better understanding of the many ways conditions like PTSD and depression impact a service member and the subsequent ripple effect that has on their colleagues and the military as a whole is valuable for setting policy moving forward.

This chapter will look at existing scholarship on mental health in the military, analyze whether appropriate prevention, treatment, and response measures exist and, if not, discuss how that takes a toll on readiness and other capabilities. The two cases of particular interest due to their prevalence among service members and veterans are PTSD and depression, though these can be interrelated and also overlap with other issues such as substance abuse, TBI, and a litany of more specific diagnoses, somewhat complicating the research. In addition to the inherent responsibility the nation has to protect and support its troops, this chapter seeks to explain why that support is a worthwhile investment in order to enable the U.S. Department of Defense (DOD) to carry forward the important missions with which it is charged.

## **II. Literature Review: Costs**

There is substantial scholarship already available on the extent to which mental health issues pervade the military's workforce and the circumstances and conditions that exacerbate its incidence rate. This section will attempt to organize that information and

relate it to the question of how the DOD as a whole feels the effects of these challenges and how it can and should respond to them as a threat to its personnel. Existing research points to several difficulties in making this evaluation, including the rates of comorbidity with other ailments, the ambiguity surrounding what constitutes a ready force, and the limited time that has been available to gather data on veterans of the wars in Afghanistan and Iraq. Additionally, even basic statistics surrounding mental health in the military may be under- or misreported due to the persistent stigma associated with coping with mental injuries and conditions.

### ***Costs***

Is it possible to quantify the impacts that these stressors have on the U.S. military's capabilities? The RAND Corporation estimates "that two-year costs resulting from PTSD and major depression for the approximately 1.6 million individuals who have deployed since 2001 could range from \$4.0 to \$6.2 billion," and the same report estimates that the 2005 cost related to TBI was \$90.6 to \$134.5 million; the cost of reduced productivity accounted for much of these totals.<sup>41</sup> The study also included "treatment costs, the costs of lives lost to suicide...and costs associated with TBI-related death" in these figures.<sup>42</sup> The report by Terri Tanielian and Lisa H. Jaycox uses estimates about productivity based on findings that indicate that depressed individuals (in the civilian population) miss more work due to absenteeism than their non-depressed colleagues, that service members with PTSD or TBI are more likely to report missed work days, and that presenteeism, the loss of productivity incurred due to lack of focus

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<sup>41</sup> Terri Tanielian and Lisa H. Jaycox, "Invisible Wounds of War: Psychological and Cognitive Injuries, Their Consequences, and Services to Assist Recovery," The RAND Corporation Center for Military Health Policy Research: 2008, 171.

<sup>42</sup> Ibid, 170.



and lower performance, could be heightened in individuals suffering from depression, PTSD, or TBI.<sup>43</sup> Presenteeism is probably the most difficult to measure as some duties have quantifiable output that make it a simple matter of counting tasks accomplished to measure productivity and other more complicated tasks do not.

Though lower productivity levels would clearly factor into decreased readiness levels, the degree to which these conditions impact readiness within the force is difficult to define. Additionally, the unique nature of military culture and living conditions may amplify the problem; the reliance on teamwork means that stressors on individuals can contribute to lower morale and therefore decrease the unit's performance. However, from another perspective, one individual's performance can also be absorbed by the team, so one service member's struggles can be masked as a matter of the unit having his or her back. More work should be done to analyze these dynamics and determine the real cost – fiscal and otherwise – to American military posture and capabilities.

### ***Advancing this Scholarship***

There are many areas related to this topic in which we lack knowledge and must push for more analysis. This includes the effects of mental health conditions on the productivity and readiness of the military workforce, which this chapter will attempt to address, but also how to best advance treatment options and access to care in order to decrease the negative impacts of mental health issues on the health of the force and its capabilities. These questions are too expansive to be within the scope of this chapter. However, it will attempt to define, as quantitatively as possible, the costs that the U.S. military incurs due to mental health issues within the force and describe the various

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<sup>43</sup> Ibid, 138-139.

manners in which the workforce is impacted when individuals suffer from these conditions.

The goal of this chapter is to develop a deeper understanding of how the psychological costs to service members can be extrapolated as organizational and societal costs and why taking them into account in this way is important. Increasing this understanding should help the DOD and the broader U.S. government prioritize the resources and attention put into the military's mental health needs among its many pressing responsibilities. Establishing a measure for these costs will demonstrate how much of a threat neglected mental health issues pose to the U.S. military and national security.

### **III. Theory and Hypothesis**

Existing scholarship points to a definite relationship between the incidence of PTSD and depression (and various other behavioral and mental health conditions) and the readiness of the force. If mental health issues become more widespread within the force, the military becomes less able to perform at the high level required of it in order to sufficiently deter and respond to the variety of threats we face as a nation, and in fact we have seen mental health diagnoses in active duty service members increase by approximately 65% between 2001 and 2011 during the Iraq and Afghanistan wars (see the table on the following page).<sup>44</sup> The size and technological capabilities of the U.S. military make it possible to compensate for a certain amount of understaffing, whether that be through absenteeism, presenteeism, or through service members' separation, but the negative impacts of unsatisfactory staffing levels and decreased productivity would

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<sup>44</sup> Katherine Blakely and Don J. Jansen, "Post-Traumatic Stress Disorder and Other Mental Health Problems in the Military: Oversight Issues for Congress," Congressional Research Service, August 8, 2013, <https://www.fas.org/sgp/crs/natsec/R43175.pdf>, accessed December 1, 2015, 1.

still be felt in the long-term. A lack of sufficient identification, preventative, and treatment planning for mental health issues would contribute to a chronic problem for the health of the force, thereby harming readiness and U.S. national security.

**Table I. Reported Changes in Incidence Rates of Mental Disorder Diagnoses Between 2000-2011**

Category of Mental Disorder Diagnosis	Change in Incidence Rate per 100,000 Person-Years
PTSD	656.5%
Anxiety	225.8%
Other MH	125.8%
Adjustment disorders	97.7%
Other psychoses	36.5%
Depression	62.4%
Substance abuse and dependence	28.5%
Alcohol abuse and dependence	-20.2%
Schizophrenia	-22.0%
Personality disorders	-50.0%
<b>Any MH diagnosis</b>	<b>61.9%</b>
<hr/>	
<b>More than one MH diagnosis</b>	<b>84.9%</b>

**Source:** Analysis by CRS. Data provided by the Armed Forces Health Surveillance Center, expanded from the data presented in "Mental disorders and mental health problems, active component, U.S. Armed Forces, 2000-2011." Medical Surveillance Monthly Report, 19(6), June 2012.

**Notes:** Incidence rate is number of diagnoses per 100,000 person-years. For example, for an incidence rate of 7,000, out of a population of 100,000 observed for one year, 7,000 new diagnoses would be expected. For a population of 50,000 observed for one year (50,000 person years), or a population of 100,000 observed for 6 months (also 50,000 person-years), 3,500 new diagnoses would be expected.

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The data above correspond with a period of combat exposure in Iraq and Afghanistan and demonstrate a correlation between that combat exposure and specific mental health diagnoses. Different diagnoses will impact productivity and readiness in different ways. Although they vary greatly, these diagnoses are all challenging to treat and their effects will endure in the lives of individuals and within the organization.

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<sup>45</sup> Ibid, 3-4.

As U.S. service members return from Afghanistan and the DOD refocuses on other challenges, the unique individual costs of deploying to the post-9/11 theaters – including the mental health toll of PTSD, depression, and related conditions – will continue to manifest in the military workforce. Conserving these individuals and their skillsets within the armed forces will require an increased understanding of, and enhanced focus on, treatment. As an employer, the U.S. military is unique in its ability to monitor its personnel and set requirements for them in response to threats. If continued measures are taken to reduce the stigma and perceived costs of reporting and seeking treatment for mental health issues, then the command structure would be a resource and ally for service members and would be doing itself a favor by preemptively addressing personnel issues.

The data on the two case studies discussed in this chapter, PTSD and depression, should show that as they affect an increasing segment of the military workforce, the cost to DOD will increase, and the readiness and productivity of the force will decline proportionally. These cases will demonstrate and define the connection between these two mental health issues and military readiness because they cause absenteeism, presenteeism, and other related problems such as early separation and low morale, which negatively impact productivity and incur costs to the DOD.

#### **IV. Methods**

The most salient case studies to be considered within the broad category of mental health issues are PTSD and depression, as these and closely related (sometimes indistinguishable) conditions are prevalent among U.S. veterans of Afghanistan and Iraq. It is estimated that 25% to 40% of returning Operation Enduring Freedom (OEF) and

Operation Iraqi Freedom (OIF) veterans returned “with less visible wounds – psychological and neurological injuries associated with [PTSD] or [TBI], which have been dubbed ‘signature injuries’ of the Iraq War.”<sup>46</sup> It is worth noting that “the symptoms of psychological injury can take years or decades to manifest,” so those numbers could be even higher – perhaps as many as 53% of people who are diagnosed with PTSD experience delayed onset of their symptoms.<sup>47</sup> According to DOD Surveys of Health and Related Behaviors Among Active Duty Military Personnel (HRB Surveys) circa 2008, 20.4% of men and 25.7% of women surveyed reported symptoms of depression; those service members who saw high combat exposure suffered from depression at a rate of 26.3%, with the general rate among respondents being somewhat lower at 21.5%.<sup>48</sup> According to the Centers for Disease Control and Prevention (CDC) depression affects up to 10% of the American general population at any given time.<sup>49</sup> Despite the potential for inconsistency between the HRB Surveys and Morbidity and Mortality Weekly Report (MMWR) released by the CDC, this demonstrates that the military workforce suffers from depression at a disproportionately high rate relative to other Americans.

Both PTSD and depression can be difficult to define. According to the American Psychological Association, PTSD is “an anxiety problem that develops in some people after extremely traumatic events, such as combat, crime, an accident or natural

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<sup>46</sup> National Council on Disability, “Invisible Wounds: Serving Service Members and Veterans with PTSD and TBI,” published March 4, 2009 by the National Council on Disability: Washington, D.C., 1.

<sup>47</sup> Jessica Stern, 2014, “PTSD: Policy issues,” *Psychoanalytic Psychology* 31, no. 2: 256.

<sup>48</sup> Bray et al, *Understanding Military Workforce Productivity: Effects of Substance Abuse, Health, and Mental Health*, 120-121.

<sup>49</sup> CDC, “An Estimated 1 in 10 U.S. Adults Report Depression,” <http://www.cdc.gov/features/dsdepression/>, accessed 11 August 2014.

disaster.”<sup>50</sup> They go on to note that, “[p]eople with PTSD may relive the event via intrusive memories, flashbacks and nightmares; avoid anything that reminds them of the trauma; and have anxious feelings they didn’t have before that are so intense their lives are disrupted.”<sup>51</sup> Part of the challenge of treating PTSD in individuals and within the structure of the military is that it presents differently from patient to patient and can be attributed to a spectrum of different experiences.

Depression can also be difficult to define and measure; it can manifest in different symptoms and to different degrees and is generally more common in those experiencing other physical health issues, interacting with those conditions to compound them.<sup>52</sup> The American Psychological Association says that depression is the most widespread mental disorder in the U.S. and defines it symptomatically as “more than just sadness. People with depression may experience a lack of interest and pleasure in daily activities, significant weight loss or gain, insomnia or excessive sleeping, lack of energy, inability to concentrate, feelings of worthlessness or excessive guilt and recurrent thoughts of death or suicide.”<sup>53</sup> These symptoms can all impact an individual’s ability to even attend work – let alone their productivity while there – to varying degrees depending on the severity of his or her symptoms.

The HRB Surveys seem to be the best direct data source on military mental health. This chapter will reference this survey data in addition to secondary analysis in order to investigate the impacts of PTSD and depression on the military workforce and

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<sup>50</sup> American Psychological Association, “Post-traumatic Stress Disorder,” accessed July 30, 2014: <http://www.apa.org/topics/ptsd/>

<sup>51</sup> Ibid.

<sup>52</sup> CDC, “An Estimated 1 in 10 U.S. Adults Report Depression,” <http://www.cdc.gov/features/dsdepression/>, accessed 11 August 2014.

<sup>53</sup> American Psychological Association, “Depression,” accessed July 30, 2014: <https://apa.org/topics/depress/index.aspx>

investigate what links exist between these conditions and military readiness by taking an in depth look at the individual, unit, and organizational level impacts that unaddressed mental health issues have within the military. Furthermore, it will analyze the connection between these impacts and the personnel requirements for DOD's missions, examining how human capital must be maintained in order to support national security interests. Finally, it will briefly consider programmatic proposals for better handling of mental health challenges by the military and make recommendations for improving retention and productivity, not to mention quality of life for service members and veterans.

## **V. Data**

PTSD and depression have been widely studied and the DOD has devoted many resources during these recent conflicts to improving treatment options, especially as regards PTSD and TBI. While the survivability of brain injuries and other types of trauma has greatly increased during these wars due to this research and subsequent advances in the field of physical medicine, the need for comparable advances in mental health screening, testing, diagnosis, and treatment has not yet been adequately met. The next step toward understanding whether mental health solutions in the military support U.S. national security goals (in addition to meeting the government's ethical obligations to its all volunteer military) is to investigate how these conditions impact service members' job performance and readiness and measure that impact where possible. Utilizing available data collected in military and civilian settings, we can extrapolate how PTSD and depression affect the workforce.

## ***PTSD***

PTSD is “characterized by measurable changes in the brain and in the hormonal and immune systems”<sup>54</sup> which can trigger debilitating symptoms. While this offers hope for diagnostic accuracy, the outlook for sufferers of PTSD can be grim. Sometimes these symptoms interfere with day-to-day life and hinder productivity at work; sometimes they make working impossible. Additionally, a recent study by the American Psychological Association demonstrates that PTSD is a chronic condition for many veterans.<sup>55</sup> The study updated research from the 1980s that concluded that 15% of Vietnam veterans suffered from PTSD; in updating the research they found that 11% – over two thirds of the number originally diagnosed – were still experiencing symptoms even after so much time had passed since they had experienced combat-related trauma and after the development of many new treatments in the intervening years.<sup>56</sup> These results underscore the likelihood that the effects of PTSD on the current DOD workforce will also be long lasting following recent deployments to Afghanistan and Iraq and will include separation from the military for those service members who are unable to receive treatment that works to relieve their individual symptoms.

Beau Kilmer led a study that used microsimulation to model the costs of PTSD and depression and they use a study of Vietnam era veterans to estimate lost wages for today’s returning troops; sufferers of PTSD experienced a 15.75% reduction in wages and sufferers of major depression experienced a 45.23% wage reduction in comparison to their peers who do not suffer from these conditions because they were unable to follow

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<sup>54</sup> National Council on Disability, “Invisible Wounds: Serving Service Members and Veterans with PTSD and TBI,” published March 4, 2009 by the National Council on Disability: Washington, D.C., 8.

<sup>55</sup> Alan Zarembo, “PTSD Continues to Afflict Vietnam Veterans 40 Years After the War,” *The Los Angeles Times*, August 8, 2014, <http://www.latimes.com/nation/nationnow/la-na-nn-ptsd-vietnam-20140808-story.html>, accessed August 11, 2014.

<sup>56</sup> *Ibid.*



the same career trajectory.<sup>57</sup> Obviously these conditions harm a veteran's ability to work or seek more challenging, higher paid careers. In the Kilmer study they conclude that lost productivity accounts for 64% of the cost of PTSD and major depression, with only 4% attributed to treatment, while 32% of the costs are related to suicide.<sup>58</sup> Their study estimated DOD's costs in lost productivity over 2 years in the range of \$206 million to \$902.5 million in 2008 dollars.<sup>59</sup> But in 2012 the Congressional Budget Office identified \$700 million spent on "specific initiatives to treat [TBI] and mental health,"<sup>60</sup> and if that sum represents a treatment cost amounting to 1/16th of the productivity cost as Kilmer suggests, then the cost of lost productivity could be as high at \$11.2 billion for 2012, surely a number worth addressing by increasing treatment. The disparity in these estimates is likely due to an increased investment in treatment between 2008 and 2012, but even the lowest cost estimate is in the hundreds of millions of dollars, still a substantial sum of money.

PTSD will clearly continue to take a toll on DOD's workforce as this generation of service members returns, recovers, and recalibrates to new missions, and it remains to be seen how effectively these costs can be mitigated through improved treatment options and greater access to care. It is to be hoped that in the time since Vietnam there has been some reduction in the stigma attached to seeking treatment as well as medical advancements that increase the accuracy of mental health diagnoses and the efficacy of

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<sup>57</sup> Beau Kilmer, et al, "Invisible wounds, visible savings? Using microsimulation to estimate the costs and savings associated with providing evidence-based treatment for PTSD and depression to veterans of Operation Enduring Freedom and Operation Iraqi Freedom," *Psychological Trauma: Theory, Research, Practice, And Policy* 3, no. 2 (June 2011): 204.

<sup>58</sup> *Ibid*, 205-206.

<sup>59</sup> *Ibid*, 206.

<sup>60</sup> CBO, "Approaches to Reducing Federal Spending on Military Health Care: Actual and Projected Costs for Military Health Care as a share of DoD's Base Budget, 2000 to 2028," Congressional Budget Office: January 2014, 18.

treatment so that today's veterans have more positive outcomes. Best practices for addressing PTSD among service members cannot be included within the scope of this paper, but given the known costs associated with PTSD detailed above, investing in these improvements and in education about the problem may prove to be a fiscally prudent way to fulfill the promise the U.S. makes to its service members and veterans.

### ***Depression***

Due to the high rate of comorbidity with PTSD and other conditions attributed to combat exposure and the stresses of life in the military, it is difficult to single out the effects of depression on DOD's workforce and the costs it has for the military. These conditions overlap diagnostically so often in service members that they are more often considered together, as we have seen in the above analysis of PTSD impacts. However, the civilian workforce also suffers the effects of depression and existing scholarship has attempted to quantify the impact of this condition on employers other than the DOD. While the causes of depression among civilian and military individuals may vary, we can assume that the rate at which the condition causes absenteeism will be similar because the two groups experience the same symptoms. The impact this has on productivity in the civilian workforce may not directly translate to the military setting which has more redundancy built into it, but civilian data provide a helpful estimate.

In the general population about 12% of workers surveyed report having been diagnosed with depression at some point in their careers. A 2013 Gallup poll found that this group missed an average of four more workdays per year due to health reasons than their colleagues who had never been diagnosed with depression, costing American

employers an estimated \$23 billion in lost productivity per year.<sup>61</sup> While the total U.S. workforce is, of course, larger than the military workforce, and therefore the cost in dollars is less relevant to our purposes here, it is important to remember that the incidence rate of depression in the military as reported in HRB Surveys is approximately twice the incidence rate in the general population per Gallup's estimate. Therefore, absenteeism attributable to depression would cause a greater decline in the military's percentage of productive work hours than it does in the civilian workplace, making the effects more intensely felt and for which it would be more difficult to compensate.

A study conducted by Ronald Kessler's team controlled for absenteeism by conducting the research at a company with use or lose leave; they looked instead at depression's impact on productivity and job performance.<sup>62</sup> These researchers were also cognizant of depression's high comorbidity with other health conditions, though instead of PTSD they were concerned with the impact of 15 other common health conditions: high cholesterol, hypertension, irritable bowel syndrome, chronic heartburn, chronic fatigue, chronic sleep problems, anxiety, arthritis, back pain, neck pain, asthma, allergies, migraines, other headaches, and obesity.<sup>63</sup> Of all of these conditions, depression emerged as the most significant factor impacting productivity with exacerbated effects observed when depression and fatigue/sleep problems or anxiety were combined.<sup>64</sup> These are conditions that are often diagnosed in combination with depression and may frequently be medically related or indicate the severity of the condition. Based on self-reported and

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<sup>61</sup> Dan Witters, Sangeeta Agrawal and Diana Liu, "Depression Costs U.S. Workforce \$23 Billion in Absenteeism," Gallup Poll Briefing: July 24, 2013, 3.

<sup>62</sup> Ronald Kessler, Leigh Ann White, Howard Birnbaum, Ying Qiu, Yohanne Kidolezi, David Mallett, Ralph Swindle, "Comparative and Interactive Effects of Depression Relative to Other Health Problems on Work Performance in the Workforce of a Large Employer," *Journal of Occupational and Environmental Medicine*: Volume 50, Number 7, July 2008, 810.

<sup>63</sup> *Ibid*, 812.

<sup>64</sup> *Ibid*, 812, 814.

admittedly subjective productivity statistics, depression in this group of workers in the Kessler study were calculated to cost the company between 3.5 and 14.9 days of work in productivity alone (not counting absenteeism) depending on the severity of their depression and related symptoms.<sup>65</sup> As regards to what this means for DOD's workforce, once again we can extrapolate similar impacts while taking into account that the incidence rate of depression is higher in the military. Additionally, significant comorbidity with other military-specific medical conditions like PTSD would need to be taken into account.

Given that the “[p]ersonnel at most risk for a mental health diagnosis were 18-24-year-olds and those with the most combat exposure,”<sup>66</sup> and this roughly correlates with the RAND study's decision to model costs off of an E-5 with five to seven years of service and include alternate data from E-4, E-7, and O-2 salaries,<sup>67</sup> the dollar cost in productivity per depressed service member per year could range from \$349.91 (for an E-4 with less than 2 years of service who would be unproductive for 3.5 days of work time) up to \$3,451.06 (for an O-2 with more than 8 years of service – the highest pay point at which they could reasonably still be in the highest risk age and rank group – who would be unproductive due to depression for the equivalent of 14.9 work days).<sup>68</sup> These sums vary widely and would range even more when taking into account the many individual circumstances at play, however this calculation provides an idea of the scale of the cost of

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<sup>65</sup> Ibid, 814.

<sup>66</sup> Bray et al, *Understanding Military Workforce Productivity: Effects of Substance Abuse, Health, and Mental Health*, 9.

<sup>67</sup> Terri Tanielian and Lisa H. Jaycox, “Invisible Wounds of War: Psychological and Cognitive Injuries, Their Consequences, and Services to Assist Recovery,” The RAND Corporation Center for Military Health Policy Research: 2008, 194-196.

<sup>68</sup> My calculations are based on 2014 monthly military salaries by rank found at [http://www.militaryfactory.com/military\\_pay\\_scale.asp](http://www.militaryfactory.com/military_pay_scale.asp), a 20-day work month, and the rate of lost work time to depression as determined by Kessler et al.

lost productivity when multiplied across the massive size of the military workforce. To better understand the scale of the potentially affected population, please refer to Appendix 1 for detailed information on military strength by service and rank.

The following two tables are taken from Tanielian and Jaycox's research and show projections of two-year costs to the U.S. government (both DOD and VA expenditures) for PTSD, major depression, or both for a theoretical group of 50,000 E-5 service members (E-5 being the modal rank of those returning from deployment and 50,000 the number of E-5s that returned from Iraq in 2005)<sup>69</sup>, and the cost savings their model predicts with increased treatment. According to their microsimulation, the cost savings to the U.S. government per two years if 100% of those affected received evidence-based treatment could be as high as \$86, 241,152. That is a highly aspirational outcome, but the more modest savings suggested in the other scenarios are also quite significant. If the cost of suicide is excluded from the data, there may be costs associated with evidence-based treatment instead of savings. However, suicide is one of the costs of mental illness, and the authors also note that evidence-based care is more effective than traditional care, so the long-term costs may be significantly less than for less effective treatment options that may continue for the remainder of the veteran's life. They also believe that their model's limits, such as not being able to account for quality of life, would affect this particular result.<sup>70</sup>

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<sup>69</sup> Terri Tanielian and Lisa H. Jaycox, "Invisible Wounds of War: Psychological and Cognitive Injuries, Their Consequences, and Services to Assist Recovery," The RAND Corporation Center for Military Health Policy Research: 2008, 189.

<sup>70</sup> Ibid, 198.

**Table 6.5**  
**Status Quo Cost Projections for 50,000 E-5s**

	Baseline	Low-Cost	High-Cost
Total cost, including lives lost to suicide	\$204,691,652	\$120,736,359	\$231,455,009
Total cost, excluding lives lost to suicide	\$119,829,381	\$51,184,350	\$149,009,345
Total number of suicides	11	9	11

NOTE: Status quo assumes that 30 percent of individuals with mental health conditions receive treatment and that 30 percent of individuals receiving treatment get evidence-based care.

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**Table 6.6b**  
**Projected Savings Relative to Status Quo with Increased Treatment, Cohort of 50,000 E-5s**

Treatment Scenario	Baseline	Low-Cost	High-Cost
<b>A. Savings relative to status quo, including cost of lives lost to suicide</b>			
50% receive treatment; 30% of treatment is evidence-based	\$13,936,899	\$13,514,394	\$19,238,061
50% receive treatment; all treatment is evidence-based	\$32,667,902	\$10,129,509	\$21,335,384
100% receive evidence-based treatment	\$86,241,152	\$40,530,609	\$71,527,859
<b>B. Savings relative to status quo, excluding cost of lives lost to suicide</b>			
50% receive treatment; 30% of treatment is evidence-based	\$4,247,346	\$120,900	\$5,348,937
50% receive treatment; all treatment is evidence-based	-\$2,496,069	-\$6,793,875	-\$1,897,481
100% receive evidence-based treatment	\$1,378,881	-\$13,406,400	\$4,228,445

NOTES: *Status quo* assumes that 30 percent of those in need get treatment and that 30 percent of treatment is evidence-based. Positive entries in the table indicate cost savings, whereas negative entries represent cost increases.

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Depression has ramifications for workforce productivity regardless of its underlying cause. Its significance even among comorbid variables in the civilian workforce suggests that similar consideration should be given to the seriousness of depression's effects among service members, especially given the heightened incidence rate. Depression is a complicated malady but given its widespread impact there are many treatments and medications designed to treat it; emphasizing awareness and acceptance to

<sup>71</sup> Ibid, 189.

<sup>72</sup> Ibid, 192.

destigmatize depression within the military and ensuring that treatment options are available to service members would have financial benefits for the DOD. It is also easy to make the connection to improved readiness; if service members can treat the symptoms of depression they will be more able to focus on the task at hand and better support the mission.

## **VI. Discussion**

The two case studies for mental health impacts on military productivity and readiness examined in this chapter – PTSD and depression – both demonstrate that mental health issues carry a sizable price tag in absenteeism and presenteeism in the workforce and, more specifically, in the military. Though it was possible that these effects would be negligible in DOD’s workforce because it has some built in redundancy that other organizations lack – with its 1,353,762 active duty service members (as of September 2015)<sup>73</sup> and approximately 742,000 civilians (as of August 2015)<sup>74</sup> – it is clear that the magnitude of the problem has inescapable consequences. Both PTSD and depression cause individuals to miss work and lose focus, and both are relatively common in the military population as compared to the rest of society. It can also be inferred that a decline in readiness would ensue from continued mental health-related personnel costs because fewer service members would be operationally ready and deployable. The data on these conditions support the hypothesis of this chapter, that the greater the incidence of mental health issues among service members, the higher the costs to DOD and the lower the productivity and readiness levels will be.

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<sup>73</sup> Defense Manpower Data Center, “Armed Forces Strength Figures for September 30th, 2015,” DoD Personnel, Workforce Reports & Publications, [https://www.dmdc.osd.mil/appj/dwp/dwp\\_reports.jsp](https://www.dmdc.osd.mil/appj/dwp/dwp_reports.jsp), accessed December 2, 2015.

<sup>74</sup> Department of Defense, “About the Department of Defense (DoD),” <http://www.defense.gov/About-DoD>, updated August 27, 2015, accessed December 2, 2015.

The difficulty with measuring the impact of PTSD, depression, and other mental health conditions on military readiness is that when DOD reports readiness levels it takes personnel into account by “comparing the number of service members assigned to a unit [and] the number of positions approved for that unit,” and by determining whether personnel are fully trained on all aspects of their responsibilities.<sup>75</sup> This method reflects complicated personnel issues at a very simplistic level. Although it should be noted that service members need to obtain many qualifications in order to meet the criteria to fill those positions and be considered fully combat ready, this method especially fails to factor in all relevant variables like presenteeism, low morale, and other more nuanced indicators of the ability of personnel to function at a high level that would reflect the reality that individuals in the military are struggling with mental health issues and also other human factors – distraction due to family separation, substance abuse, and a whole range of other complicating situations, which would be particularly challenging to account for even in a qualitative measure of the unit’s readiness. In order to accurately reflect a unit’s readiness level, the DOD would need to update these measures by including screening results or giving commanders additional room to qualify the analysis they provide.

One area in which there is a clear financial and readiness toll on the military due to mental health issues is a step beyond presenteeism and absenteeism: attrition. While the reason for separation is not recorded, from May 2003 to April 2004 on average 7.23% more post-deployment service members with an identified mental health risk decided to leave the military within a year following their deployment than their colleagues whose

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<sup>75</sup> R. Derek Trunkey, “Implications of the Department of Defense Readiness Reporting System,” Working Paper Series: The Congressional Budget Office, May 2013, 4.



post-deployment health assessments did not indicate potential mental health issues.<sup>76</sup>

This correlation is significant and over time the additional percentage of attrition means that many additional service members, in whom the DOD has invested through training costs and who have valuable skill sets, will leave the armed forces perhaps earlier than they would had they not been suffering from a mental health issue. The table below shows the scale of this attrition.

**Table 6.** Attrition From Military Service After Post-Deployment Health Assessment by Mental Health Risk and Service\*

Left Military Service	Mental Health Risk, No. (%)†		
	No	Yes	Total
Operation Iraqi Freedom, No. of service members‡	180 114	42 506	222 620
No	150 601 (83.6)	33 404 (78.6)	184 005 (82.7)
Yes within year, mo	29 513 (16.4)	9 102 (21.4)	38 615 (17.3)
<1	501 (0.3)	233 (0.5)	734 (0.3)
1-<3	3 080 (1.7)	8 78 (2.1)	3 958 (1.8)
3-<6	10 882 (6.0)	3 126 (7.4)	14 008 (6.3)
6-<12	15 050 (8.4)	4 865 (11.4)	19 915 (8.9)
Operation Enduring Freedom, No. of service members‡	14 475	1 843	16 318
No	12 630 (87.3)	1 459 (79.2)	14 089 (86.3)
Yes within year, mo	1 845 (12.8)	384 (20.8)	2 229 (13.7)
<1	39 (0.3)	17 (0.9)	56 (0.3)
1-<3	180 (1.2)	60 (3.3)	240 (1.5)
3-<6	535 (3.7)	112 (6.1)	647 (4.0)
6-<12	1 091 (7.5)	195 (10.6)	1 286 (7.9)
Other, No. of service members‡	59 433	5 534	64 967
No	50 938 (85.7)	4 262 (77.0)	55 200 (85.0)
Yes within year, mo	8 495 (14.3)	1 272 (23.0)	9 767 (15.0)
<1	512 (0.9)	107 (1.9)	619 (1.0)
1-<3	1 052 (1.8)	199 (3.6)	1 251 (1.9)
3-<6	2 599 (4.4)	343 (6.2)	2 942 (4.5)
6-<12	4 332 (7.3)	623 (11.3)	4 955 (7.6)

Abbreviations: CI, confidence interval; OR, odds ratio.

\*Attrition is defined as leaving military service for any reason during 12-month follow-up.

†Post-Deployment Health Assessment Form DD2796 completed beginning May 1, 2003, through April 30, 2004. Mental health risk was defined as a positive response on any of the Post-Deployment Health Assessment mental health items as defined in the "Methods" section.

‡For attrition by mental health risk "Yes" vs "No" among Operation Iraqi Freedom, the OR was 1.39 (95% CI, 1.35-1.43); for Operation Enduring Freedom, 1.80 (95% CI, 1.59-2.04); and for those returning from other deployment locations, 1.79 (95% CI, 1.67-1.91). For attrition by deployment location, comparing Operation Iraqi Freedom with Operation Enduring Freedom, the OR was 1.33 (95% CI, 1.27-1.39) and comparing Operation Iraqi Freedom with other deployment locations, the OR was 1.19 (95% CI, 1.16-1.22).

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<sup>76</sup> Charles W. Hoge, Jennifer L. Auchterlonie, and Charles S. Milliken, "Mental Health Problems, Use of Mental Health Services, and Attrition from Military Service After Returning from Deployment to Iraq or Afghanistan," *Journal of the American Medical Association*, Vol. 295, No. 9, March 1, 2006, 1030.

<sup>77</sup> Ibid

In terms of reducing the mental health-related costs incurred by DOD, it makes the most sense to devote resources to screening new recruits or those service members about to deploy to identify those who may be vulnerable and ensure they have access to a support network, improving diagnostic measures, increasing access to care, reducing the stigma associated with suffering from a mental health condition, and modernizing the treatment options available. This is a tall order, but it makes the most sense financially and would have the biggest possible impact by addressing mental health issues proactively rather than allowing these conditions to escalate on an individual level, to the point that a service member might have to leave the military to cope with their symptoms, or an organizational level, to the extent that a unit might be unfit to deploy.

Unfortunately, “[o]nly 23% to 40% of veterans returning from OEF and OIF who screened positive for a probable mental health condition including major depression and PTSD sought care within 3 to 4 months after returning from deployment.”<sup>78</sup> This is the kind of statistic that DOD could work more proactively to correct. Privacy issues surrounding the handling of medical records do pose a legitimate barrier to commanding officers and military administration getting involved in mandating treatment. However, given the extent of the problem – if up to 40% of returning veterans who might benefit from some form of treatment are not getting it – there must be ways that the chain of command can encourage service members to get the counseling or medication that will allow them to remain productive members of their unit. Given the evidence this chapter

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<sup>78</sup> Beau Kilmer, et al, "Invisible wounds, visible savings? Using microsimulation to estimate the costs and savings associated with providing evidence-based treatment for PTSD and depression to veterans of Operation Enduring Freedom and Operation Iraqi Freedom," *Psychological Trauma: Theory, Research, Practice, And Policy* 3, no. 2 (June 2011): 201.

has presented that there are significant costs from these conditions to productivity and readiness, it is in both the organization's and the individuals' best interest.

Part and parcel of the administrative approach to this threat to personnel and readiness needs to be ongoing work to reduce the stigma that mental health condition sufferers face within the military. The mechanisms of this process were discussed in the literature review section of this paper, but the benefits of reduced stigma are big enough that it bears mentioning again. These would be benefits not only to the afflicted service member's quality of life but also to their unit and the broader capacity of the military to properly staff and accomplish its missions. Since we have established that untreated or undertreated PTSD and depression do cost the military in absenteeism and presenteeism, it is reasonable to believe that reducing stigma would increase the rate of treatment and therefore decrease the future costs to the DOD through lost productivity and absence or separation.

Integrating an open conversation about these issues into training and into leaders' portfolios would be a low-cost way to encourage self-reporting and incorporate support networks into a service member's everyday points of contact. The more individuals are comfortable seeking help, the earlier they will do so, and the more effectively their care can be managed. This helps avoid an escalation to a crisis point that might require emergency medical care and/or significant time away from work – two expensive options. If a greater percentage of service members were to feel comfortable seeking help that would also help DOD reduce the number of returning veterans who fail to get care when they need it without calling for additional intervention by military leadership.

## **VII. Conclusion**

This chapter demonstrates that the DOD lacks sufficient prevention, treatment, and response measures for PTSD and depression. There are too many service members with untreated mental health diagnoses and too high an attrition rate related to mental health diagnoses in the military to consider current programs adequate. As discussed, the problem is often that service members choose not to seek treatment, which means that organizational methods to encourage treatment-seeking behavior in response to the challenge to the health of the force posed by mental health issues are unsatisfactory.

This chapter also shows that mental health issues do have an impact on military productivity and readiness. Individuals suffering from PTSD and depression (and presumably other mental health disorders) lose productivity through absenteeism and presenteeism. The costs calculated in this chapter and its source materials may not be perfectly accurate because data had to be drawn from the civilian world and the Vietnam era, but the evidence supporting the existence and prevalence of these impacts is overwhelming. The size of the DOD workforce and the incidence of these conditions within it mean that the cost to productivity is enormous, and because research shows that these conditions are often chronic or manifest many months and years after trauma, combat, or deployment, that cost will not decrease any time soon without the DOD taking a new approach to detection and treatment.

While it is difficult to define the cost to readiness that this loss in productivity incurs, we have learned, for example, that even if a worker is present they may lose a number of hours of work to decreased focus and other symptoms brought on by depression. The military must evaluate the extent to which it is just counting “able

bodies” when it assesses readiness levels and determine how able those service members truly are. There are any number of mental distractions that could interfere with an individual’s ability to perform tasks, especially in high stress environments, including the symptoms of PTSD and depression that are experienced by a significant percentage of service members. Just because the right number of service members are present does not mean that they are ready to fulfill mission requirements; this inability to account for the human side of personnel issues in calculating readiness could have negative consequences for national security.

The tremendous costs linked to the effects of PTSD and depression in the military show that increased support for mental health treatment is a good investment for DOD to make. Healthy service members contribute more to the mission and are more likely to remain in the military. These individual benefits translate directly into a more effective organization and advantage the rest of society through the shared national security gains derived from a more ready and able military.

In order to address the threat posed to productivity and readiness by conditions like PTSD and depression, DOD needs to proactively encourage and require open discussion and treatment of the challenges service members face. The cost of inaction is too high to allow a significant segment of the force to fall through the proverbial cracks and avoid treatment. If we address mental health issues as the threat they are to our armed forces and military capabilities, perhaps we can spur greater action. Proactively responding to this threat is a question of efficiency and cost reduction as well as fulfilling the obligation our government has to look out for its volunteer forces and veterans.

## **Chapter II: The Case for Embedded Behavioral Health Providers**

### **I. Introduction**

In the study of behavioral health issues in the armed forces it is important to distinguish between active duty service members and veterans as the two groups face very different challenges. Active duty service members face specific issues with access to care due to the restrictions inherent in various operational environments and on deployment. Veterans, by comparison, face many more bureaucratic challenges to getting treatment, in addition to the barriers that both groups face due to the perception that these conditions reflect personal weakness. Veterans provide a good data source on many aspects of military behavioral health but it is difficult, even among recently separated veterans, to gather data on current military behavioral health programs. Despite the differences in how these two distinct constituencies access care, mental health treatment challenges among active duty service members and veterans are entwined in the policy arena through the similar perceptions of their groups by the general public and by policymakers.

This chapter will examine the effectiveness of deploying Embedded Behavioral Health Providers (EBHPs) as a possible response to the increasing incidence rate of mental health conditions among those serving in the military. EBHPs are trained mental health professionals assigned to service members in a specific military unit and who deploy with that unit to ensure accessibility to and continuity of mental health care for service members. In order for the program to be effective it will need to combat the dual barriers of difficulty of access and stigma. In this case effectiveness can be measured by the contradictory metrics of decreasing the need for behavioral health services, especially

crisis care, and an increase in the percentage of individuals who feel able to request assistance with and assessment of their behavioral health issues without facing stigmatization. To take these measures it will be important to investigate whether the levels of issues such as depression, PTSD, and alcohol and substance abuse among service members (and returning veterans who served in units that included EBHPs) are reduced in units that include EBHPs; whether EBHPs help to combat the stigma associated with seeking mental health treatment; and whether service members are more likely to seek treatment if they have access to EBHPs. Since this is a new program, available data are limited, so this chapter will analyze existing data – including anecdotal evidence – and design further research that will be necessary to understand the policy’s impact. The research thus far indicates that the EBHP model should be expanded and this chapter will make the case for doing so, at least to such a level that the program can be fairly evaluated.

Additionally, to help better understand the potential for making headway on military mental health issues policy, this chapter will examine the social construction of service members and veterans. The way we as a society discuss the groups these policies affect will impact the ability of our leaders to devote resources and attention to the problem. This analytical lens will show that while these two target populations are construed in ways that accurately reflect our cultural values, that construction can have both positive and negative repercussions for the service member and veteran target population. Part of the role of the conversation around mental health problems should be to ensure that any new policy would align well with our values. Therefore, as we investigate the potential of the EBHP model, we must also discuss whether it reflects the

demands and ideal results of our governing principles. Most importantly, the social construction of these groups will mark out the policy options available for addressing their needs based on how they relate to the rest of society, elected officials, and other policymakers. In order for the EBHP model to be successfully implemented it not only needs to be a beneficial, efficient policy, it must also satisfy the needs of policymakers by representing little reputational risk and low probability of displacing their other priorities.

As referenced above, the two most significant barriers to treatment are low accessibility to health care and the stigma with which mental health issues are imbued. These hold true for both those on active duty and veterans. Recently, lengthy Department of Veterans Affairs (VA) health care wait times were exposed in the media and that revelation is demonstrative of the way systematic failures have decreased access to needed care for all types of physical and mental conditions in the veteran population. The backlog in VA disability cases alone amounted to 900,000 unresolved claims in January 2013,<sup>79</sup> not to mention the lengthy wait times for seeing a physician – including mental health care providers. Among active duty service members, access to care is especially complicated by deployment away from the support infrastructure that has been built up on domestic bases and the civilian U.S. health care infrastructure. And unfortunately, some locations overseas simply cannot be set up and fortified in a way to allow for similar health care infrastructure and the presence of civilian professionals, given security requirements.

The second barrier that discourages service members and veterans from accessing mental health care is the stigma associated with these conditions. For a variety of reasons already described, service members tend to avoid being labeled with one of these

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<sup>79</sup> Jessica Stern, “PTSD: Policy Issues,” *Psychoanalytic Psychology*, 2014, Vol. 31, No. 2, 256.



diagnoses.<sup>80</sup> While treatment-seeking behavior is therefore disincentivized, it could improve the health of individuals and that of the force as a whole. The enhanced scrutiny may not be unwarranted though, given the inherent stressors, responsibilities, and dangers in the military workplace. Military culture is, and has historically been, entrenched and difficult for outsiders to influence, so altering these perceptions will be a challenge for civilian policymakers and even U.S. Department of Defense (DOD) leadership.

There are also significant informational challenges associated with behavioral health solutions. Privacy concerns prevent most information sharing regarding health conditions, even when it would be valuable, perhaps life-saving, for commanding officers to be aware of the specific challenges their troops are facing. One of the effects of the stigma associated with these conditions is that it is difficult to establish an open dialogue within the military community. There are efforts underway to raise awareness about PTSD and depression among service members and throughout the chain of command including a nationally rated public service announcement publicizing the Veterans Crisis Line/Military Crisis Line as well as a multitude of trainings for DOD personnel to recognize the symptoms of mental health disorders,<sup>81</sup> but the aforementioned barriers counter the flow of information and discourage service members from asking questions about their experiences and symptoms. Often it is easy to dismiss symptoms as trivial – especially if discussing them would make one feel abnormal or weak – which is dangerous as these conditions can escalate quickly with increasingly detrimental consequences. It is important that mental, behavioral, and emotional health conditions no

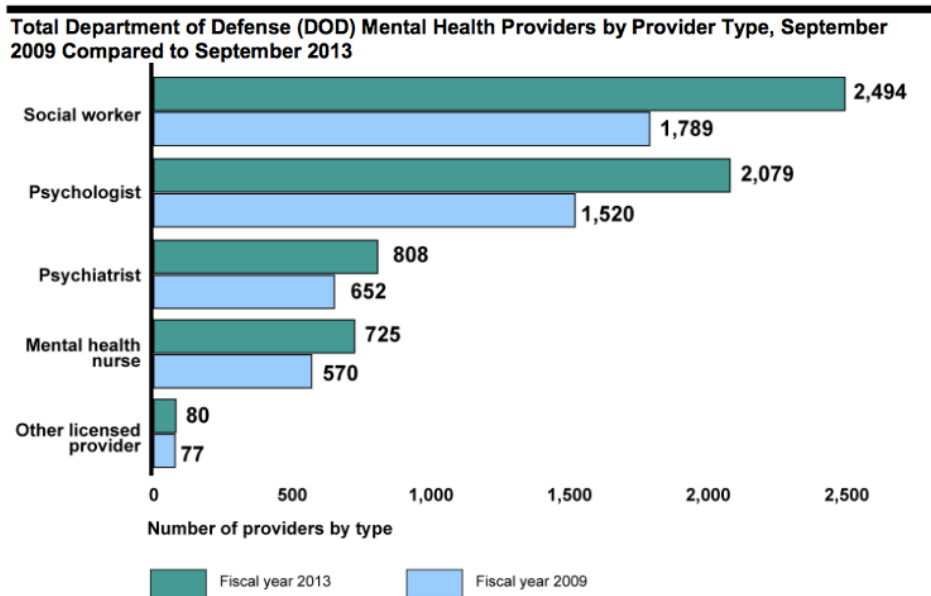
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<sup>80</sup> Dror Ben-Zeev, et al, "Stigma of mental illness and service use in the military," *Journal Of Mental Health* 21, no. 3 (June 2012), 267.

<sup>81</sup> Sloan Gibson and Kristie Canegallo (goal leaders), "Cross-Agency Priority Goal Quarterly Progress Update: Service Members and Veterans Mental Health, FY2015 Quarter 3," [www.performance.gov/downloadpdf?file=FY15\\_Q3\\_SMVMH.pdf](http://www.performance.gov/downloadpdf?file=FY15_Q3_SMVMH.pdf), accessed December 2, 2015, 4 and 12.

longer be perceived as personal failures so that there is no shame or embarrassment in seeking treatment.

The DOD is seeking to respond to the threat to personnel and readiness that these mental health issues represent, and one way DOD leadership has sought to do so is through adding to its mental health care personnel:



Source: GAO analysis of DOD data. | GAO-15-184

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This increase in mental health care staffing within DOD between 2009 and 2013 demonstrates awareness that mental health issues pose a problem for the health of the force, but is not in itself a solution. Employing greater numbers of mental health care providers is a positive step, but that step alone only partially addresses the accessibility issue and does not guarantee that the health care providers are located where they are most needed.

<sup>82</sup> Government Accountability Office, “Defense Health Care: Additional Information Needed about Mental Health Provider Staffing Needs,” Report to the Subcommittee on Defense, Committee on Appropriations, U.S. Senate, January 2015, <http://www.gao.gov/assets/670/668208.pdf>, accessed December 2, 2015.

As of 2013, over 2.5 million service members had been deployed to Afghanistan or Iraq in the post-September 11th era.<sup>83</sup> Of this number, over a third of them were deployed multiple times,<sup>84</sup> further increasing the chance of sustaining trauma that puts them at higher risk of suffering from PTSD or a related condition. This constitutes a sizable, well-regarded, deserving target population that current policy is failing to sufficiently support. Unfortunately this is demonstrated by the high rates of suicide among service members and veterans as well as by the rates of violent behavior (including domestic violence) and substance abuse that are often symptoms of PTSD.<sup>85</sup> In order to prevent these outcomes, the DOD and the VA must implement policies that decrease barriers to care and enroll more service members and veterans in treatment plans. One proposed policy option that attempts to address these barriers is deploying EBHPs within military units. This policy would be directed closer to the root of the problem but does have the drawback of not directly touching the veteran population living with these conditions and who have already separated from service.

## **II. Literature Review: Embedded Behavioral Health Providers**

This chapter will address how the United States military addresses mental health issues in the force by examining the EBHP case study. The EBHP model is one designed to mitigate the effects of trauma and other stressors of the military lifestyle on mental health by enhancing access to care and destigmatizing mental health issues.

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<sup>83</sup> Chris Adams, "Millions went to war in Iraq, Afghanistan, leaving many with lifelong scars," McClatchy DC, March 14, 2013, [http://www.mcclatchydc.com/2013/03/14/185880\\_millions-went-to-war-in-iraq-afghanistan.html?rh=1](http://www.mcclatchydc.com/2013/03/14/185880_millions-went-to-war-in-iraq-afghanistan.html?rh=1), accessed October 25, 2014.

<sup>84</sup> Ibid.

<sup>85</sup> Jessica Stern, "PTSD: Policy Issues," *Psychoanalytic Psychology*, 2014, Vol. 31, No. 2, 256.

### ***What is the Embedded Behavioral Health Provider model?***

The U.S. Army first implemented a pilot program for EBHPs at Fort Carson, Colorado starting in 2008, and plans to establish it within all combat units by September 2016.<sup>86</sup> It was developed in response to an Epidemiologic Consultation (EPICON) conducted at Fort Carson following a significant uptick in violent crimes among service members stationed there who had “experienced heavy combat in theater.”<sup>87</sup> The EPICON focused on the following goals:<sup>88</sup>

1. Improving access to care
2. Increasing the mission readiness of operational units/Brigade Combat Teams
3. Identifying Soldiers with behavioral health challenges as early as possible
4. Increasing and improving communication between behavioral health professionals and operational unit leaders, and
5. Serving as a clinical platform for quality care delivery

The Army developed the EBHP model for behavioral health treatment in direct response to these identified priorities and goals. Improving access to care is at the top of the list and, although stigma is not explicitly addressed, pursuing this list of objectives would require decreasing the prevalence of that barrier as well. The program is designed to provide better quality of care for soldiers and greater insight on their behavioral health to the command.

The EBHP model is “an early intervention and treatment structure of [behavioral health] care ... that promotes soldier readiness (pre-, during, and post-deployment).”<sup>89</sup> It brings behavioral health care providers into closer proximity to soldiers, streamlining the

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<sup>86</sup> Elizabeth M. Collins, “Bringing Behavioral Health to the Troops,” *Soldiers, the Official U.S. Army Magazine*, <http://soldiers.dodlive.mil/2012/09/bringing-behavioral-health-to-the-troops/>, accessed September 28, 2014.

<sup>87</sup> Laura Cho-Stutler, “Staff Voices: Q&A on the Army’s Embedded Behavioral Health (EBH) Program,” Center for Deployment Psychology, October 7, 2013, <http://www.deploymentpsych.org/blog/staff-voices-q-army’s-embedded-behavioral-health-ebh-program>

<sup>88</sup> Ibid.

<sup>89</sup> “Embedded Behavioral Health (EBH),” Army Medicine, <http://armymedicine.mil/Pages/EBH.aspx>, accessed November 2, 2014.

process of seeking care and encouraging strong relationships between soldiers and their behavioral health providers.<sup>90</sup> The Army is consciously trying to “erode the stigma commonly associated with [mental and behavioral health] care in the military setting” by desensitizing soldiers to the practice of behavioral health care and turning open discussion of these issues into a normal occurrence.<sup>91</sup> The Army also aims to improve continuity of care through the EBHP model, which is designed so that each soldier will see the same behavioral health provider from visit to visit (or at least a member of a small team who can all be briefed on the specifics of an individual’s treatment).<sup>92</sup> The Fort Carson teams believe that building these closer relationships does reduce the stigma involved in seeking treatment.<sup>93</sup> This continuity of care should reduce the stress of seeking assistance. In addition to easing the soldiers’ burden of accessing care both by reducing that stress and simply being physically easier to get to, the EBHP model is also designed to benefit command because officers in these units have one point of contact for help with behavioral health questions including evaluations for administrative discharge<sup>94</sup> and command-directed evaluations for soldiers in crisis; their soldiers miss less work while seeking treatment because the EBHP is co-located with the unit, thereby decreasing absenteeism; and EBHPs can provide analysis about trends within the unit to which they are assigned.<sup>95</sup> EBHPs’ ability to report this unit-level information provides those in

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<sup>90</sup> Ibid.

<sup>91</sup> Ibid.

<sup>92</sup> Ibid.

<sup>93</sup> Ibid.

<sup>94</sup> Administrative discharge in this case means that a service member, for his or her health or safety and/or the safety of others, is deemed unfit to serve. This is distinct from the controversial separations the Army conducted for ‘misconduct’ among soldiers diagnosed with mental health conditions and TBI as referenced in the Literature Review.

<sup>95</sup> Ibid.

command with a resource for preempting serious issues without violating privacy requirements.

The EBHP model also attempts to help prevent the development or worsening of PTSD and related conditions by providing immediate feedback and analysis of traumatic events in theater or anywhere service members are stationed. PTSD has been referred to as a “shame disorder,”<sup>96</sup> and the feeling of guilt or responsibility for injury and loss of life in combat – especially among one’s fellow soldiers or those under one’s command – is known to be a trigger for PTSD and depression. For EBHPs in the theater, it is standard operating procedure to visit with soldiers after a traumatic incident.<sup>97</sup> This gives the soldiers an opportunity to talk through the incident and help ameliorate the confusion inherent in combat and memories of combat. Soldiers naturally take on guilt when there are casualties in their unit, but having a mental health professional analyze the event with them is designed to help “people to put these things into a realistic context for themselves, which many times leads to a ... more healthy way...of thinking about it and going forward.”<sup>98</sup> EBHPs hope to focus soldiers on the broader picture, facilitate discussion among soldiers, and thereby ensure that their perception of events is not governed by guilt or shame. In general, the earlier trauma is addressed, the less likely it will manifest in negative behavioral health outcomes, so EBHPs believe that this kind of interaction can help reduce the incidence of PTSD. It is difficult to quantify this type of result without the ability to predict the relationship between specific incidents and behavioral health issues, but the idea is generally consistent with what we do know about

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<sup>96</sup> Jessica Stern, “PTSD: Policy Issues,” *Psychoanalytic Psychology*, 2014, Vol. 31, No. 2, 258.

<sup>97</sup> Elizabeth M. Collins, “Bringing Behavioral Health to the Troops,” *Soldiers, the Official U.S. Army Magazine*, <http://soldiers.dodlive.mil/2012/09/bringing-behavioral-health-to-the-troops/>, accessed September 28, 2014.

<sup>98</sup> *Ibid.*

trauma's complicated impacts on health, in that "early and careful interventions" likely decrease negative outcomes.<sup>99</sup>

EBHPs in the Army are also mandated to make provider assessments of all the soldiers with whom they serve. These assessments are paired with leader assessments in order to categorize a soldier's level of risk for behavioral health issues when they return from deployment. A soldier is categorized as green, amber, or red, and each risk level carries with it certain obligations and options for treatment. At present, this is the system units use to assess readiness, but it is dependent to a certain extent on self-reporting, which may be insufficient in light of the challenges related to stigma outlined above; the idea of this kind of labeling could deter openness about this risk level. Soldiers do complete a mandatory self-assessment, which is designed to give them an opportunity to voice concerns, assuming they are comfortable doing so. Incorporating this opportunity as a standard part of returning from deployment is another way in which the Army is trying to reduce the stigma of seeking mental health assistance by requiring all service members to at least consider the questions. For EBHPs, completing the assessment empowers them to make customized recommendations and take more extreme treatment measures, such as evacuating a soldier from the theater or admitting them to a treatment program, if needed.<sup>100</sup>

One concern with this model, especially given the sensitivity that needs to be shown toward the stigmatization of mental health disorders, is that service members could find this intrusive. As the program is implemented, care should be taken to ensure

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<sup>99</sup> Terri Tanielian and Lisa H. Jaycox, "Invisible Wounds of War: Psychological and Cognitive Injuries, Their Consequences, and Services to Assist Recovery," The RAND Corporation Center for Military Health Policy Research: 2008, 152.

<sup>100</sup> Elizabeth M. Collins, "Bringing Behavioral Health to the Troops," *Soldiers, the Official U.S. Army Magazine*, <http://soldiers.dodlive.mil/2012/09/bringing-behavioral-health-to-the-troops/>, accessed September 28, 2014.

that EBHPs are seen as trustworthy resources for service members rather than allies of higher-ups that make determinations about promotions. One benefit of the unique military culture is that it is fairly simple to make an action like a visit to an EBHP mandatory. Certainly this could provoke some resentment, but military culture is also results-driven, so if EBHPs are proven to be effective with further research, the willingness of service members to participate should increase. If the EBHP model is established as a mandatory program with proven results and made up of trusted agents then these three factors should help mitigate the tendency for individuals to dislike interference in their mental health care.

The potential of the program is, of course, dependent on whether EBHPs perform their duties well and are consistent with the correct goals. For example, there are many ways in which the program could be perverted to serve goals besides promoting the health and safety of service members. EBHPs must also be trusted to provide medically sound advice independent of any pressure from their chain of command to address other DOD needs. If any EBHPs were to deviate from the purpose identified in their mission statement, it would immediately undermine the entire program.

The EBHP model addresses the failures and challenges that have been identified in the area of military behavioral health. However, with its emphasis on person-to-person interaction and reliance on the expertise of a small group of health care providers to service a variety of complicated conditions, there are ways in which this model might fail certain individuals or personality types. The model's strength is that it provides quick access to behavioral health services and normalizes the experience of seeing a behavioral health provider or discussing behavioral health issues. If implemented as envisioned, the



downsides to those aspects of the program will be minimal. In today's political environment, however, we must also consider the efficiency of implementing the EBHP program. This is one of the areas where publicly available comparative data are lacking. However, given the estimated costs to productivity of under-providing care to the DOD workforce and the long-term costs of military and VA health care for those afflicted with behavioral health conditions, which is estimated to range from \$4.0 to \$6.2 billion per two years related to PTSD and major depression,<sup>101</sup> there is a great deal of room for improvement if the EBHP model can in fact reduce the incidence rate of behavioral health conditions and the corresponding need for long-term and crisis care. With access to the budgets for these pilot programs and the estimated costs of expanding it across the force, a cost-benefit analysis against the current system costs would provide some metrics for policymakers to weigh. It may be some time before these numbers are publicly available in a way that allows for such a comparison, but eventually it will be essential for evaluating the viability of the program. As the Army and other military branches scale up the program it will generate more numbers that will either validate or repudiate the small samplings we have, making it easier to evaluate its economic efficacy.

Although spending and budgetary restrictions are a very strong driving force in policy decisions, policymakers must also apply society's values and mores to these challenges. As a society, we almost universally espouse a deep appreciation for the sacrifices that our military service members make. The best policy to honor those sacrifices and underscore the value we place on serving the country will likely make fiscal sense but it may also be worth doing despite its costs in order to align our policies

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<sup>101</sup> Terri Tanielian and Lisa H. Jaycox, "Invisible Wounds of War: Psychological and Cognitive Injuries, Their Consequences, and Services to Assist Recovery," The RAND Corporation Center for Military Health Policy Research: 2008, 171.

with our principles. It is therefore important to understand how service members and veterans are viewed as a group within our society. Are they politically powerful because they are so respected? Or are those who need help disenfranchised by the same concerns about stigma that prevent them from seeking help individually? How can our policymakers and policies help address mental health problems in the military without exacerbating the issue of stigma? And if we as a society “tend to focus, with legitimate reason, on service members who have returned banged up or who are struggling in their new civilian lives,” then how do we also avoid preventing those veterans who are thriving from being part of the public discourse?<sup>102</sup> This is a sensitive problem because as we look at policies to assist this target population, that process should not disempower the very group it is meant to help.

There are limits on how many problems can be in focus at any one time from a policymaking perspective. In order to increase the chances of devoting policymakers’ time and resources to the important question of military mental health, would it be better to look at behavioral health in the military as part of a broader problem the U.S. is facing with access to mental health care, as part of a set of veterans issues including the closely linked VA health care crisis and less directly relevant issues like education benefits and hiring preference, or perhaps incorporate behavioral health more explicitly in military readiness concerns? Any of these three options would create a larger constituency (or target population) but render less specific policy solutions. It would also increasingly

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<sup>102</sup> Howard Schultz and Rajiv Chandrasekaran, “Want to help veterans? Stop pitying them.” *The Washington Post*, October 31, 2014, [http://www.washingtonpost.com/opinions/want-to-help-veterans-stop-pitying-them/2014/10/31/1885e088-5eb9-11e4-9f3a-7e28799e0549\\_story.html](http://www.washingtonpost.com/opinions/want-to-help-veterans-stop-pitying-them/2014/10/31/1885e088-5eb9-11e4-9f3a-7e28799e0549_story.html), accessed November 2, 2014.

muddle the distinction between active duty and veteran populations and perhaps in so doing make it difficult to address the unique issues the two groups face.

***Social Construction of Service Members and Veterans***

As alluded to above, service members and veterans comprise a specific target population or even two distinct target populations. As we examine new policy proposals such as the EBHP model that will impact those populations, we must consider the capacity of our political system to justify and make these changes successfully. The military is slightly less encumbered by the political process since the chain of command has more leeway to implement new policy, but it is still motivated by similar values and preferences as society as a whole. How we perceive the service member and veteran populations determines how willing our leadership is to allocate the time and financial resources needed to address their needs.

Anne Schneider and Helen Ingram posit that advantaged groups, or groups that wield political power and appear to be deserving, have the most access to policymakers and can best motivate them to take action.<sup>103</sup> Although they see this as part of a degenerative policy process, it nonetheless remains true that the best way to advance one’s goals is to activate the lobbying efforts of an advantaged group. The table below summarizes Schneider and Ingram’s categories of social construction:

		<b>Social Construction</b> <sup>104</sup>	
		<i>Deserving</i>	<i>Undeserving</i>
<b>Political Power</b>	<i>Stronger</i>	<b>Advantaged</b>	<b>Contenders</b>
	<i>Weaker</i>	<b>Dependents</b>	<b>Deviants</b>

<sup>103</sup> Anne Schneider and Helen Ingram, *Policy Design for Democracy*, University Press of Kansas, 1997, 113-114.

<sup>104</sup> Table adapted from Schneider and Ingram, 109.

The question is where service members and veterans fall in this range of social constructions. Since they are spoken of with reverence by all our elected officials, at least at present, it is pretty clear that no one would argue that they comprise an undeserving group, so they are not contenders or deviants. However, whether they are more accurately considered to be advantaged or dependents is debatable. One would think that both groups could exert great influence over policymakers given the respect they are accorded in the public discourse, but if this were the case, would we not have placed a higher priority on implementing timely, effective solutions to mental health care in the military and the VA health care access debacle, despite all the challenges that entails? It could be that these challenges, no matter how much we prioritize them, are simply too difficult to solve, at least quickly. But it seems that a lack of resources perpetuates these problems, especially as regards the VA – for example, in the VA system, 40-64% of VA psychologist positions were unfilled as of September 2015, leading to longer wait times<sup>105</sup> – so it appears that our policymakers are less apt to favor these target populations with a distribution of benefits than one expects for advantaged groups.<sup>106</sup>

The number of veterans receiving mental health care at the VA increased 63% between 2005 and 2013, three times faster than overall Veterans Health Administration use grew, and the percent of VA health care spending allocated for mental health has

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<sup>105</sup> Meghan Hoyer, “Half of critical positions open at some VA hospitals,” *USA Today*, September 4, 2015, <http://www.usatoday.com/story/news/2015/08/20/half-critical-positions-open-some-vas/32003103/>, accessed December 2, 2015.

<sup>106</sup> Anne Schneider and Helen Ingram, *Policy Design for Democracy*, University Press of Kansas, 1997, 114.

gradually grown.<sup>107</sup> In roughly the same period, the VA and policymakers in Congress and the White House added \$4 billion to the Veteran's Health Administration budget for mental health treatment and that number continues to increase.<sup>108</sup> The increased budget is a promising indicator that addressing veterans' mental health care is considered a priority. However, despite positive reports by the VA<sup>109</sup>, there remain major failings in access to care as evidenced by the 2014 revelations of appallingly long health care wait times for veterans.<sup>110</sup> These issues persist despite attention in the media and from lawmakers and it seems "structural problems" may be preventing the increased investment from paying off in increased health care access.

Less than one percent of Americans have served in our most recent wars,<sup>111</sup> which means that a vast majority of the nation only knows about the experiences of that target population through the news media and the way policymakers portray them. Given the seriousness of the challenge posed to our military's readiness and the resiliency of the

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<sup>107</sup> U.S. Department of Veterans Affairs, Veterans Health Administration, "VA Mental Health Services Public Report, November 2014,"

[http://www.mentalhealth.va.gov/docs/Mental\\_Health\\_Transparency\\_Report\\_11-24-14.pdf](http://www.mentalhealth.va.gov/docs/Mental_Health_Transparency_Report_11-24-14.pdf), accessed December 2, 2015, 4 and 6.

<sup>108</sup> From \$2.2 billion in Fiscal Year (FY) 2006 to a requested \$6.2 billion in FY 2013 and a request of \$7.2 billion in FY 2015:

CQ Almanac, "Veterans' Health Care, a Balancing Act," *CQ Almanac 2005*,

<https://library.cqpress.com/cqalmanac/document.php?id=cqal05-766-20104-1042365>, accessed December 2, 2015.

The American Legion, "Fiscal Year 2013 VA Budget," The American Legion Legislative Point Paper, March 17, 2011, [http://www.legion.org/sites/legion.org/files/legion/legislative-point-paper/2013\\_va\\_budget\\_03\\_11\\_12.pdf](http://www.legion.org/sites/legion.org/files/legion/legislative-point-paper/2013_va_budget_03_11_12.pdf), accessed December 3, 2015, 1.

U.S. Department of Veterans Affairs, "2015 Congressional Submission, Summary – Volume I," <http://www.va.gov/budget/docs/summary/fy2015-volumei-summary.pdf>, accessed December 3, 2015, 24.

<sup>109</sup> U.S. Department of Veterans Affairs, Veterans Health Administration, "VA Mental Health Services Public Report, November 2014,"

[http://www.mentalhealth.va.gov/docs/Mental\\_Health\\_Transparency\\_Report\\_11-24-14.pdf](http://www.mentalhealth.va.gov/docs/Mental_Health_Transparency_Report_11-24-14.pdf), accessed December 2, 2015, 10 and 18.

<sup>110</sup> Drew Griffin, Nelli Black, Scott Bronstein, and Curt Devine, "Veterans still facing major medical delays at VA hospitals," *CNN*, October 20, 2015, <http://www.cnn.com/2015/10/20/politics/veterans-delays-va-hospitals/>, accessed December 3, 2015.

<sup>111</sup> Howard Schultz and Rajiv Chandrasekaran, "Want to help veterans? Stop pitying them." *The Washington Post*, October 31, 2014, [http://www.washingtonpost.com/opinions/want-to-help-veterans-stop-pitying-them/2014/10/31/1885e088-5eb9-11e4-9f3a-7e28799e0549\\_story.html](http://www.washingtonpost.com/opinions/want-to-help-veterans-stop-pitying-them/2014/10/31/1885e088-5eb9-11e4-9f3a-7e28799e0549_story.html), accessed November 2, 2014.

force, it makes sense that much of the public discussion of military mental health focuses on the risks associated with PTSD and the symptomatic behaviors associated with it. This focus, though generally intended to be helpful, helps cast military veterans as a dependent population instead of a more powerful, advantaged one.<sup>112</sup> This characterization may explain why civilian political leaders and policymakers have made limited progress on issues that resonate in the veteran community; they may simply be too small a group with too little power to impact the opinions of lawmakers. However, veterans groups have organized into interest groups and worked to raise awareness of wounded warrior priorities, so a certain amount of pressure is being brought to bear through pluralist means.

A 2015 study by the advocacy organizations Got Your 6 and ServiceNation show that even in the last year, American attitudes toward veterans have shifted away from the “‘broken hero’ narrative” and toward a more realistic perception that reflects the diversity of veterans’ strengths and needs.<sup>113</sup> Groups like these do public relations work to combat stereotypes about veterans that could damage their ability to influence policymakers and cast them as dependents rather than as advantaged. A shift like this to a more advantaged perception of veterans and service members including those with mental health issues will impact how salient their concerns are for policymakers and could enable more discussion of military and veterans’ issues. However, many misperceptions about this target population persist, including a belief in an exaggerated incidence rate of mental

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<sup>112</sup> Anne Schneider and Helen Ingram, *Policy Design for Democracy*, University Press of Kansas, 1997.

<sup>113</sup> Rob Gordon, “Commentary: America’s Changing Perception of Veterans,” *Military Times*, November 9, 2015, <http://www.militarytimes.com/story/veterans/2015/11/08/commentary-americas-changing-perception-veterans/75303948/>, accessed November 9, 2015.

health disorders among veterans.<sup>114</sup> Being conscious of, and affecting, the way service members and veterans are portrayed to the American public will be an important piece of empowering those groups and enabling a productive conversation among influencers and policymakers.

Military leaders face additional motivations to improve care for service members as compared to other policymakers; quite simply, mental, behavioral, and emotional health problems are a drain on the DOD's resources and reduce its capabilities. Service members are not just a target population in this case but a resource, and a threat to their health is a threat to readiness and a threat to U.S. national security. As the chain of command evaluates the readiness of the force in the face of a range of new threats including behavioral health issues, military leaders must place a premium on ensuring that service members' health issues are addressed. This has obvious immediate implications for readiness but also impacts the military's capabilities far into the future by influencing everything from recruitment to budgeting. Through this lens, it makes sense that the DOD is trying to generate innovative solutions for behavioral health treatment. It remains to be seen whether innovations such as EBHPs can accomplish their objective and decrease the incidence rate or severity of behavioral health issues. Through its efforts to modernize attitudes around mental health issues and increase the range of options for dialogue and treatment within the organization, the DOD may have an impact on the broader social construction of service members suffering from mental health conditions like PTSD, perhaps helping them move out of the dependent demographic into an advantaged, influential position with our policymakers.

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<sup>114</sup> "How the Perception of Post 9-11 Veterans Among Americans is Gradually Changing," *Got Your 6*, 2015, <https://gotyour6.org/impact/cultural-perceptions-of-veterans/>, accessed November 10, 2015.

### III. Data

Though there are little quantitative data yet available on the effectiveness of the EBHP model – because it has so recently been implemented and is still limited in scope – there are a few salient data points that are important to consider. A comprehensive analysis of the policy will only be possible when additional statistics are generated to indicate whether a causal link exists between the program and improved outcomes. That being said, anecdotal evidence thus far supports the hypothesis that the EBHP model improves access to care and reduces stigma-based resistance to seeking care, the two issues most cited as barriers to improved behavioral health outcomes for service members and veterans.

One reason the EBHP model has already been deemed successful is because the increased interfacing between soldiers and health providers encourages earlier diagnosis and earlier treatment of mental health conditions:

“By making dispositions (recommendations for administrative discharge or Medical Examination Board) earlier in the deployment cycle, when it is time to deploy there are fewer Soldiers who are not deployable because of a behavioral health reason. A comparison of two brigades at Ft. Carson showed that a brigade with an EBH team prior to deployment had 10 Soldiers medically not ready to deploy for behavioral health reasons in comparison to 115 medically not ready to deploy for behavioral health reasons for a brigade that did not have an EBH team.”<sup>115</sup>

After a complete cycle of embedded behavioral health support, another Brigade Combat Team had a comparable 96 fewer soldiers left on rear-detachment for behavioral health reasons than at the time of their previous deployment.<sup>116</sup> If these results are typical, then

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<sup>115</sup> Laura Cho-Stutler, “Staff Voices: Q&A on the Army’s Embedded Behavioral Health (EBH) Program,” Center for Deployment Psychology, October 7, 2013, <http://www.deploymentpsych.org/blog/staff-voices-q-army-s-embedded-behavioral-health-ebh-program>

<sup>116</sup> Shannon Carabaja, “Army expanding successful embedded behavioral health program,” November 17, 2011, <http://www.army.mil/article/69479/>, accessed September 28, 2014.



the EBHP model for care would decrease the need for behavioral health-related personnel adjustments at the time of deployment by over 90 percent. Further study is, of course, needed to validate these results, but improvement in this area by even a far less significant margin would decrease stress on soldiers and improve the command's ability to make strategic personnel decisions. It is also much more efficient from an organizational perspective; better planning allows routine and standard operating procedures to handle staffing problems as they arise instead of on a rushed, emergency basis.

Another key data point is that soldiers who seek care at the behavioral health clinic embedded in their unit can expect to have an initial consultation within 45 minutes without referrals or scheduling an appointment ahead of time.<sup>117</sup> This ease of access is credited with the “consistent rise in the number of Soldiers who seek outpatient care and ...[the corresponding] decrease in the number who actually need to be admitted for inpatient behavioral health treatment,” which is taken to demonstrate that individuals are comfortable seeking help earlier, before their condition would escalate to one of heightened severity.<sup>118</sup> This is clearly beneficial to individual soldiers but, if truly a result of the EBHP model, also shows that it can help reduce threats to readiness and the related costs of hospitalizations and crisis care. EBHPs at Fort Carson also believe that they will “be an important part of helping to decrease the number of Soldiers who seek suicide as a result of their issues.”<sup>119</sup> This claim is yet to be evaluated with quantitative

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<sup>117</sup> Elizabeth M. Collins, “Bringing Behavioral Health to the Troops,” *Soldiers, the Official U.S. Army Magazine*, <http://soldiers.dodlive.mil/2012/09/bringing-behavioral-health-to-the-troops/>, accessed September 28, 2014.

<sup>118</sup> Ibid.

<sup>119</sup> Ibid.

evidence, which must be gathered, but it is representative of the hopes and intent for the EBHP program as it gets underway.

The initial evidence suggests that the EBHP model “improved access to care, improved continuity of care, enhanced [behavioral health] provider communication with commanders, decreased inpatient hospitalizations, decreased referrals to the TRICARE network for behavioral health care and garnered high rates of commander and Soldier satisfaction.”<sup>120</sup> This is very encouraging as an initial assessment, even if it is not scientifically corroborated at this time. Further research is clearly needed to confirm these findings and must focus on determining whether a direct causal link can be established between the key elements of the EBHP model, the key weaknesses it was designed to address, and the improved outcomes experienced by these specific Army units.

One of the few studies currently available on EBHPs focuses on their effectiveness in the California Army National Guard. The data gathered in this study point to the only statistically significant difference between those units with EBHPs and those without as measured in a decrease in the percentage of soldiers experiencing close relationship impairment (CRI), meaning issues with one’s spouse, boyfriend, or girlfriend.<sup>121</sup> While this is a positive result, it is far from the wide-ranging benefits that have been touted by Army practitioners. However, the authors of the report point to several factors that limit their data and their main conclusion is that more data on the

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<sup>120</sup> Shannon Carabajal, “Army expanding successful embedded behavioral health program,” November 17, 2011, <http://www.army.mil/article/69479/>, accessed September 28, 2014.

<sup>121</sup> Dale W. Russell et al., “Embedded Behavioral Health Providers: An Assessment With the Army National Guard,” *Psychological Services*, August 2014, Vol. 11, No. 3, 265.

EBHP model needs to be collected.<sup>122</sup> Worth noting is that there was a self-selection bias at work in this study (the authors refer to this as a lack of randomization) in which the units selected for EBHPs were those assessed to be at greater risk, therefore the inability to find statistically significant differences between those units and others that did not embed behavioral health providers might actually indicate that the program was effective.<sup>123</sup> The results of this study are, therefore, ambiguous at best and it serves mostly to highlight the need for additional research before conclusions about the effectiveness of the EBHP program are drawn.

#### **IV. Analysis and Further Study**

The EBHP model is designed to optimize outcomes for service members, and with the information available, it seems to be countering the dual issues of stigmatization and restricted access to care. One caveat to this positive impression of the program is that the main body of evidence has been presented by military leaders and behavioral health practitioners, specifically those involved in standing up the EBHP program – two groups that have a vested interest in demonstrating their responsiveness and effectiveness on combating mental health issues and related organizational consequences for the military.

The evidence to date suggests that the EBHP model is a promising one with the potential to help transform attitudes about mental health care in certain military and veteran communities who most feel the impact of a failure to correct these attitudes. However, empirical evidence, or at least publicly accessible empirical evidence, is lacking. The DOD conducts Surveys of Health and Related Behaviors Among Active

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<sup>122</sup> Ibid, 271.

<sup>123</sup> Ibid, 271.

Duty Military Personnel (HRB Surveys), and these should be used to determine which units across the force suffer comparable rates of PTSD, depression, and other behavioral health conditions. As the EBHP program expands, behavioral health providers could be embedded in some units, and others with traditional behavioral health care would be control groups; each unit would then be evaluated through appropriate means such as the HRB surveys or similar measures, which could be anonymous but tied to a particular command or unit. These two data sets would subsequently enable a real comparative analysis and would provide empirical evidence with which to evaluate the program's efficacy.

In addition to quantitative analysis, an effort should be made to survey recipients of EBHP care. Especially because one of the principal barriers to care, stigma, is perception-based, establishing a measure of those perceptions will be valuable in determining whether the program is effective. The insight of service members who have access to embedded behavioral health providers would also likely aid in improving the program if deficiencies in it are identified. The framing itself of the EBHP program will be an important measure of its success or failure; if participation is seen as an empowering experience for service members, that could alter not only the way treatment is stigmatized or encouraged but also impact the social construction of the service member and veteran population. If, on the other hand, it is viewed as a response to weakness (i.e. units who receive EBHPs are the "neediest" or "most troubled"), then the stigmatization of seeking treatment could easily continue unabated.

Military family members are directly affected by the quality of care provided to service members and could prove to be another avenue for information gathering.

Uniform data collection would likely be a challenge, but this community would be acutely aware of whether the treatment provided to their loved ones is effective or not. There is an array of organizations for military families that could perhaps serve as venues for asking these questions. These groups, though frequently active in lobbying for policy changes for military and veterans' issues, are not immune from the same constraints of stigma and access. If done well, involving military family members in this assessment could empower some well-informed policy entrepreneurs to get involved in the policymaking process.

Another consideration for further research is to look at how the EBHP model would be adapted by other branches of the military. Given the range of operating environments in which service members work, EBHPs may face challenges integrating across the force. For example, special operations units are in a unique position where adding team members for non-mission-critical functions may be impossible; these service members are also at heightened risk for experiencing physical and emotional trauma that could contribute to behavioral health challenges. Even if it should prove to be an effective policy, the EBHP model may not be applicable to all the populations in need of improved behavioral health care.

## **V. Recommendations**

The EBHP model is supported by positive anecdotal evidence and deserves additional examination. The DOD seems poised to implement the policy on a broader scale,<sup>124</sup> and as that occurs there is a valuable opportunity to measure effectiveness and ensure that policy reflects the optimal choice for service members' health. At the same

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<sup>124</sup> Elizabeth M. Collins, "Bringing Behavioral Health to the Troops," *Soldiers, the Official U.S. Army Magazine*, <http://soldiers.dodlive.mil/2012/09/bringing-behavioral-health-to-the-troops/>, accessed September 28, 2014.

time, as more behavioral health providers are embedded throughout the force, it will be important to also monitor the results in the full range of diverse operational environments.

It will be of interest to measure perspectives from within the different service branches to see whether the perception of EBHPs is uniform or varies based on the various predispositions of the forces. Do some military cultures put more of an emphasis on stoicism, for example, and are they more likely to shy away from discussing these issues? Since EBHPs are so localized at the unit level there is a lot of room for specific commanding officers to influence the perception of the policy. Their support or dismissal of the program could influence its effectiveness by buoying or undermining the way it attempts to tackle stigma. The anecdotal evidence thus far may reflect a degree of self-selection for commands that were either sufficiently desperate within the status quo to try a new policy, or ones that are just generally open to a new approach; not every command may be as receptive.

Assuming that the DOD is indeed going to proceed with implementing the EBHP model across the organization, the next steps for policy analysis will be to scale up and determine the best sequence for expansion that allows for careful monitoring, find comparable data sets within the force to use for comparison (units with similar incidence rates of PTSD, depression, and other conditions), and identify the best, most accurate metrics that can be collected (for example, are surveys sufficient? Can other groups like military families weigh in? What about behavioral health professionals uninvolved in the program?) The broadest range of information sources possible would help us better understand whether the EBHP model is effective; one of the biggest constraints on

current information is that it is almost entirely generated by those with a vested interest in the success, or perceived success, of the program. Finding alternate data sources and generating quantitative data is essential for gaining an understanding of the true value of the program. If additional quantitative results do point to the effectiveness of EBHPs, that will legitimize the approach and could be a mechanism for self-reinforcement; service members would likely have more confidence in a system with hard data to back it up, and increased confidence in outcomes would likely decrease individuals' hesitance to seek help with this kind of issue.

Finally, it will be important for policymakers to understand the cost-benefit ratio of implementing this systematic change. Providing health services to members of the military is a kind of public good, though its direct benefits are restricted to a specific population so perhaps it is better labeled a public responsibility. Because the country owes a debt to its veterans and because it impacts military readiness and national security, this kind of policy does not need to be cost-efficient as long as it is effective. However, in the modern political environment, economic cost is always a consideration. Information on if and how this changes DOD and VA spending on health care would help policymakers make informed decisions. It would also require a degree of long-term thinking that is not always evident in the government's budget allocation since any cost savings may not accrue until some time after the program has been implemented.

## **VI. Conclusion**

Without additional research, the EBHP model remains a promising but unproven policy option for those seeking to change the status quo for mental health care in the military. There will be further opportunities to evaluate the program as the Army

expands the EBHP model and perhaps also as other branches begin to adopt it. The reviews thus far are very positive and if further experimentation is undertaken it could easily go to show that this is, in fact, an effective, efficient way to address the crisis in military mental health care. Ideally, this would also help improve the issues in veterans' health care both by decreasing the needs of those who will be transitioning out of the service and by providing evidence of best practices and treatment options.

While there is still much to study and verify about the effectiveness of the EBHP model, the research and analysis in this chapter point decisively toward continuing and expanding the program. The potential downsides are almost entirely limited to financial cost, which cannot be measured until the program is implemented on a large enough scale to compare it to those military mental health treatment options currently available, and which should be of less concern to us than the wellbeing of our service members and veterans. There have been no measurable or postulated negative consequences for service members' health associated with the EBHP program, and a great deal of anecdotal evidence in its favor. The DOD should proceed with plans to expand the program and should do so in a manner that allows quantitative data to be collected to demonstrate its effectiveness.



### **Chapter III: Challenges for the Force of the Future**

‘He can recall every devastating detail of his first strike. Three men with rifles were walking along a road somewhere in Afghanistan; the two in front looked as if they were having an argument, while the third wandered a little behind them. [Brandon] Bryant says he had no idea who the men were, only that they were targets. Command ordered his team to aim a missile at the two men in front instead of the one in the back, as “two is better than one.”

‘When the smoke cleared, a crater appeared on Bryant’s screen, littered with the body parts of the two men. The third man lay on the ground, missing part of his right leg. “I watched him bleed out,” Bryant recalls. The third man’s blood, which on Bryant’s screen appeared white in infrared, drained from his body, pooled on the ground and cooled. “After a while, he stopped moving, and he became the same color as the ground.”’<sup>125</sup>

#### **I. Introduction**

The history of war is also a history of technological development. As the tools of fighting grew and became exponentially more powerful, so did the human ability to inflict casualties. In modern times, a premium has been placed on precision targeting, limiting collateral and civilian damages, and, to the extent possible, keeping our warfighters out of harm’s way. Today’s trend in war is toward virtual capabilities, both in cyber fighting and through operating remotely – thus far mostly with Unmanned Aircraft Systems (UASs). Though the service members who conduct these remote missions are not in the line of fire, their responsibilities and work environment still take a toll. This chapter will examine the mental health effects of military service on those service members who operate in a new kind of combat theater.

While the emotional toll for remote operators is different in its causality and, to a degree, in its manifestations than for those service members who are physically involved in combat, it should still be a major concern for command and one that will grow as these types of operations continue. Remote piloted aircraft (RPAs) have been effective tools

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<sup>125</sup> Lauren Walker, “Hell with a Joystick,” *Newsweek*, May 22, 2015, 56.

for the U.S. Air Force (USAF), other branches of the military, and intelligence agencies, and in fact the USAF in recent years has trained more RPA operators than it has trained pilots for all other types of aircraft combined<sup>126</sup>, so it seems likely that the missions for RPAs will increase in frequency and scope.

One of the reasons drone operations are so attractive is the financial one:

“[c]ompared to traditional aircraft pilots, drone operators are approximately \$500,000 less expensive to train, on average.”<sup>127</sup> Therefore the appeal for policymakers is twofold; they can undertake foreign policy requiring military action more cheaply than before and without being responsible for sending troops into battle and not being able to bring them home. Drones give their operators the ability to collect data and inflict casualties without sustaining any losses themselves. From the perspective of military strategy, that is the ideal, though others posit that this contributes to the “antiheroic myth” of drone warfare by lacking the honor and justice that comes from facing an opponent in combat.<sup>128</sup> Regardless, drones provide an advantage on the battlefield and they will almost certainly play a large role in strategy and planning moving forward.

I hypothesize that RPA operators are subject to other stressors in place of those that deployed service members typically feel while under threat of physical harm, and that they do experience trauma from participating in violence (albeit remotely) that can result in negative mental health outcomes. Additionally, I think this chapter will show that there is value to be gained by proactively addressing mental health issues among

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<sup>126</sup> Asaro, Peter M., “The labor of surveillance and bureaucratized killing: new subjectivities of military drone operators,” *Social Semiotics*, 2013, Vol. 23, No. 2, 215.

<sup>127</sup> Tommy Tobin, “The Hidden Cost of Drone Combat,” *The Harvard Law School National Security Journal*, April 24, 2015, <http://harvardnsj.org/2015/04/the-hidden-cost-of-drone-combat-soldiers-mental-health/>, accessed September 17, 2015.

<sup>128</sup> Asaro, Peter M., “The labor of surveillance and bureaucratized killing: new subjectivities of military drone operators,” *Social Semiotics*, 2013, Vol. 23, No. 2, 200.

remote operators as we increase the number and complexity of the military missions we conduct from afar.

This chapter will examine the existing research on mental health among remote operators with data mostly sourced from the USAF, identify the similarities and differences in the causes and manifestations of emotional health issues among these service members compared to those who were deployed to a combat zone, and make recommendations for how leadership should approach policies that promote good mental health, increase access to care, and reduce stigma while adapting to a new and evolving operating environment. Any reorganization of missions within the DOD should prompt consideration of its implications for staff and readiness, and because reorienting the USAF's mission to focus on more RPA flights will have impacts for personnel, the change should be carefully evaluated in this context.

As with researching other aspects of military mental health, it is difficult if not impossible to gather a full set of data to inform this analysis. Access to the personnel and facilities in question is extremely limited, making independent assessments hard to come by. Much of the data that do exist in the public sphere is self reported, which could be distorted both by the stigmatization that those completing a survey might feel or by the potential for the population choosing to participate to be those who have an opinion to promote or a concern about the topic they wish to raise awareness about (this is known as response bias).<sup>129</sup> Also, many of the RPA operators serving today began their careers in manned aircraft, and therefore the data on them may include some mental health outcomes resulting from their previous service, which may include experiencing combat

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<sup>129</sup> Wayne Chappelle, Tanya Goodman, Laura Reardon, and William Thompson, "An analysis of post-traumatic stress symptoms in United States Air Force drone operators," *Journal of Anxiety Disorders* (28) 2014, 485.

firsthand.<sup>130</sup> Finally, the same issues with comorbidity of mental health issues and the difficulty in diagnosing them are present in this community just as in other groups of service members.

This chapter will not address the debate over the morality of drone warfare, though it will attempt to take into consideration the effects of that question on the way remote operators view their own responsibilities and react to their missions. RPA operators certainly experience a degree of isolation related to the nature of their work even while living within the borders of the United States and within their own culture, and the public debate often raised by various sets of influencers in academia, politics, and the media about the value and morality of their occupation contributes to that isolation. Many veterans returning from deployment feel cut off from society to an extent because people often do not understand their experiences, so this is something that combat veterans and remote operators may have in common. The previous chapter discussed the social construction of service members and veterans and this will inform our understanding of the issues facing RPA operators as well.

## **II. Literature Review: Remote Operators**

### ***Drone Capabilities and Operations***

The USAF operates MQ-1 Predator and MQ-9 Reaper RPAs. Both are employed for intelligence, surveillance, reconnaissance (ISR) and weapon-deploying missions. The MQ-1 Predator is designed to fly at up to 25,000 feet, be capable of observing a single location for up to a full day, and carries advanced optical equipment. It is about the length of a civilian Cessna airplane (27 feet long) and has a wingspan slightly longer than an F-15 fighter plane. It can also carry two laser-guided Hellfire missiles. The MQ-9

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<sup>130</sup> Ibid, 481 & 485.

Reaper was developed after the MQ-1 Predator demonstrated the utility of RPAs and is slightly more advanced. It can fly at up to 50,000 feet and be configured to carry up to eight Hellfire missiles or four 500-pound, laser-guided bombs, or a variety of other payloads. It is roughly the size of an F-16 fighter aircraft.<sup>131</sup>

RPA operator teams in the USAF consist of two to three people: “a pilot (i.e. a commissioned officer) and sensor operator (SO) (an enlisted member)...[who] sit side-by-side...working together in a seamless fashion to carry out a wide range of aviation-related tasks.”<sup>132</sup> The pilot and sensor operator also work closely with a mission intelligence coordinator or coordinators and other military personnel while they “attend to and interpret visual and auditory data from several sources to sustain situational and spatial awareness.”<sup>133</sup> These roles require significant multitasking and can be stressful given the many demands on operators’ attention and the weighty consequences of their actions.

### ***Exposure to Trauma***

RPA technology both separates combatants by a vast distance and brings operators shockingly close to their targets through the visual granularity of high tech sensors. Drone operators “are often involved in operations in which they witness events and make decisions on the battlefield that result in death or serious injury” and they also “[bear] witness to the loss of U.S. or allied forces on the ground as well as unexpected

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<sup>131</sup> Joseph A. Ouma, Wayne L. Chappelle, and Amber Salinas, “Facets of Occupational Burnout Among U.S. Air Force Active Duty and National Guard/Reserve MQ-1 Predator and MQ-9 Reaper Operators,” Air Force Research Laboratory 711<sup>th</sup> Human Performance Wing School of Aerospace Medicine, released June 2011, 3.

<sup>132</sup> Ibid, 4.

<sup>133</sup> Ibid, 4-5.

collateral damage.”<sup>134</sup> USAF medical records, however, indicate that only 1% of their drone operators receive PTSD diagnoses and are treated for the disorder,<sup>135</sup> though an independent study found that “[4.3%] of USAF drone operators report clinically significant PTSD symptoms,”<sup>136</sup> and a Pentagon study found that the incidence rate of PTSD and depression among remote operators was comparable to that for pilots of manned aircraft<sup>137</sup>.

As Brandon Bryant (the former RPA operator quoted at the beginning of this chapter) described, these operators are at times exposed to extremely graphic content and horrible realities. Despite criticism that drone war trivializes the taking of life by turning it into a videogame, research suggests that “while there are some similarities in terms of the interfaces and activities, drone operations are usually much more boring and tedious, with brief moments of incredible pressure and stress,” and videogames are often a source of relaxation for drone operators, making it unlikely that they conflate them with their work.<sup>138</sup> While this aspect of RPA operations is hard to quantify, researchers in this field generally conclude that “[i]t is also clear that they [the drone operators] take the responsibility of using lethal force seriously and fear making mistakes,” and it is important to note that those mistakes – “the killing of innocents” – are often cited as a contributing factor to the development of PTSD among service members, not as

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<sup>134</sup> Wayne Chappelle, Tanya Goodman, Laura Reardon, and William Thompson, “An analysis of post-traumatic stress symptoms in United States Air Force drone operators,” *Journal of Anxiety Disorders* (28) 2014, 480.

<sup>135</sup> *Ibid.*, 481.

<sup>136</sup> *Ibid.*, 483.

<sup>137</sup> James Dao, “Drone Pilots Are Found to Get Stress Disorders Much as Those in Combat Do,” *The New York Times*, February 23, 2013, [http://www.nytimes.com/2013/02/23/us/drone-pilots-found-to-get-stress-disorders-much-as-those-in-combat-do.html?\\_r=1](http://www.nytimes.com/2013/02/23/us/drone-pilots-found-to-get-stress-disorders-much-as-those-in-combat-do.html?_r=1), accessed October 22, 2015.

<sup>138</sup> Asaro, Peter M., “The labor of surveillance and bureaucratized killing: new subjectivities of military drone operators,” *Social Semiotics*, 2013, Vol. 23, No. 2, 218-219.

something as easily dismissed as the mistakes you can recover from by rebooting a videogame.<sup>139</sup>

RPA operators are also exposed to types of images that deployed pilots typically are not: “Unlike traditional bombers, drone personnel have often watched their targets for days if not months[, and after] the engagement, drone crews are also tasked with observing the destruction and watch as loved ones and associates care to the wounded and the dead.”<sup>140</sup> Observing the aftermath of an airstrike reinforces the feeling of responsibility for and connection to the results of one’s actions and to those who were impacted on the ground, whether it went according to plan or not. The combination of ISR and kinetic missions can be very emotionally taxing and makes drone work somewhat unique.

### ***Lifestyle***

While there are some similarities between what RPA operators and deployed troops are exposed to when they engage in combat, what is entirely different for remote operators is that they must compartmentalize their combat life within a civilian life. This has been cited as a stressor because having their war experience encapsulated in apparent domestic tranquility actually means that service members lose the “psychic relief” gained from the “shared sense of hardship and camaraderie amongst soldiers serving together.”<sup>141</sup> The contrast is summed up as follows:

“From about 6100 metres [~20,000 feet] in the air, they will collect information on improvised explosive devices (IEDs) planted by enemy fighters, watch as their

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<sup>139</sup> Ibid, 219.

<sup>140</sup> Tommy Tobin, “The Hidden Cost of Drone Combat,” *The Harvard Law School National Security Journal*, April 24, 2015, <http://harvardnsj.org/2015/04/the-hidden-cost-of-drone-combat-soldiers-mental-health/>, accessed September 17, 2015.

<sup>141</sup> Asaro, Peter M., “The labor of surveillance and bureaucratized killing: new subjectivities of military drone operators,” *Social Semiotics*, 2013, Vol. 23, No. 2, 217.

comrades are shot at, and launch Hellfire missiles at individuals whom commanders and politicians have designated as terrorists. At the end of the day, they will step outside into the parking lot and drive home to help their kids with their homework.”<sup>142</sup>

Going back and forth between two roles that are so at odds with one another is jarring for this community and likely for their loved ones. Additionally, while service members do take solace from being with their families, given the classification of their missions, they cannot discuss much of what they do. This can be an isolating factor and one of the most commonly endorsed symptoms on the Post-Traumatic Stress Disorder Checklist-Military Version (PCL-M, a common assessment tool) for RPA operators is “feeling distant or cut off from others.”<sup>143</sup>

While new technology has allowed more airmen to serve without being under threat of physical harm, the apparent relative comfort of living and working within CONUS may be a bit deceiving. New lifestyle challenges have arisen due to the demands of balancing military duties and civilian life in ways that do not entirely fit with how military life on U.S. bases has unfolded up until now. With the type of work that drone operators must do, they report feeling as though they have been deployed to a war zone during their shift, and this distinguishes the type of stress they undergo from that of most other active duty service members who work on domestic and non-combat zone military bases.

### ***The Work Environment***

What is often cited in existing research as having the biggest impact on the emotional health of RPA operators are actually operational factors like shift work that

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<sup>142</sup> Sara Reardon, “I spy, with my faraway eye,” *New Scientist*, January 26, 2013, Vol. 217, Issue 2901, 46.

<sup>143</sup> Wayne Chappelle, Tanya Goodman, Laura Reardon, and William Thompson, “An analysis of post-traumatic stress symptoms in United States Air Force drone operators,” *Journal of Anxiety Disorders* (28) 2014, 483.



“make[s] it difficult to sustain a normal, routine home life.”<sup>144</sup> Thirty-nine percent of USAF Distributed Common Ground System (DCGS) intelligence operators reported that factors like long work hours, insufficient manning, and being overloaded with work are their highest source of occupational stress.<sup>145</sup> The table below shows that many of the top sources of occupational stress for these drone teams is actually more administrative than related to the nature of their work:

**TABLE II. Top Self-Reported Perceived Sources of High Occupational Stress**

DCGS Intelligence Operators (n = 1,091)	DCGS Nonintelligence Personnel (n = 447)
Operational Workload and Manning (e.g., long work hours, not enough qualified manpower to address mission requirements, overload or too much work within allotted time period during the day or week.) *Endorsed by 39% of sample	Organizational Management (e.g., organizational ineffectiveness/inefficiency, organizational planning or prioritization, task management processes, poor organizational accountability) *Endorsed by 21% of sample
Operational Leadership and Communication (e.g., difficulties with interpersonal communication, uncertainty as to how duties contribute to current larger battlefield operations, organizational conflict associated with being assigned multiple tasks competing for time) *Endorsed by 31% of sample	Operational Workload and Manning (e.g., long work hours, not enough manpower to address mission requirements, overload or too much work within allotted time period during the day or week, poor prioritization and dispersal of workload.) *Endorsed by 24% of sample
Organizational Management (e.g., assignment and tasking processes considered to be inefficient or ineffective, ineffective organizational task management processes leading to excess work hours, pressure to achieve unrealistic mission goals) *Endorsed by 21% of sample	Operational Leadership and Communication (e.g., leadership and management issues within the unit, micromanagement by leadership, communication choke points and miscommunication across units, organizational conflict associated with competing tasks) *Endorsed by 25% of sample
Job Training, Proficiency and Professional Development (e.g., lack of adequate training equipment, inconsistent training time, low job confidence and proficiency, mission demands inconsistent with core AFSC training, concern about career progression and professional development) *Endorsed by 20% of sample	Job Training, Proficiency and Professional Development (e.g., lack of training consistency, varying degrees of job proficiency among personnel, low leadership focus on needed proficiency training, concern about upgrade training and promotion potential) *Endorsed by 12% of sample
Operational Shift Work Issues (e.g., difficulty switching shifts, mandatory events not considering shift schedule and requiring operators to come in on their down time, duration of shift (i.e., 12 hours, inflexibility of shift schedule) *Endorsed by 16% of sample	Operational Resources and Instability (e.g., issues with the work facility, increased restrictions with operating budget, lack of available resources to support mission objectives, job stability or uncertainty) *Endorsed by 11% of sample

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The kinds of issues reported in the survey that provided that data seem relatively mundane, but can be major stressors when they interfere with such critical work. Many drone operators also report high levels of exhaustion related to long shift work, as well as cynicism, indicating that they have had difficulty attributing significance to their work

<sup>144</sup> Ibid, 485.

<sup>145</sup> Lillian Prince, et al, “Reassessment of Psychological Distress and Post-Traumatic Stress Disorder in United States Air Force Distributed Common Ground System Operators,” *Military Medicine*, 180 (2015), 175.

<sup>146</sup> Ibid.

and feeling part of a larger mission.<sup>147</sup> These are not good indicators for any workforce, especially one that handles questions of “human life, national security, foreign relations, military operations, and [has potential responsibility for] loss of a multimillion dollar aircraft.”<sup>148</sup> Additionally, it is interesting that the issues operators indicate to be most problematic are all external to the individual; internal (i.e. mental health) problems that might have impacts on their careers are not mentioned at all. It is possible that this is simply an accurate representation of the state of affairs, but it is also possible that these results indicate a reluctance to face issues that are institutionally taboo, potentially a source of career difficulties, and insufficiently normalized as part of an important conversation service members should be having.

Previous scholarship has demonstrated that the RPA force experiences a high burnout rate, and most attribute this to the occupational stressors identified above. In 2013, attrition among drone operators in the USAF was three times that of the USAF’s manned programs.<sup>149</sup> Given that the demand for drone missions, and therefore the need for qualified drone operators, is continuing to increase, it will be important to mitigate these extra stressors as much as possible in order to recruit and retain the number of operators the military will need. A 2012 study’s findings have already spurred some efforts to make the job of RPA operators more palatable, such as adjusting rotating shift

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<sup>147</sup> Wayne Chappelle, Tanya Goodman, Laura Reardon, and William Thompson, “An analysis of post-traumatic stress symptoms in United States Air Force drone operators,” *Journal of Anxiety Disorders* (28) 2014, 481.

<sup>148</sup> Joseph A. Ouma, Wayne L. Chappelle, and Amber Salinas, “Facets of Occupational Burnout Among U.S. Air Force Active Duty and National Guard/Reserve MQ-1 Predator and MQ-9 Reaper Operators,” Air Force Research Laboratory 711<sup>th</sup> Human Performance Wing School of Aerospace Medicine, released June 2011, 6.

<sup>149</sup> Tommy Tobin, “The Hidden Cost of Drone Combat,” *The Harvard Law School National Security Journal*, April 24, 2015, <http://harvardnsj.org/2015/04/the-hidden-cost-of-drone-combat-soldiers-mental-health/>, accessed September 17, 2015.

work to allow for more predictability in their schedules, but undoubtedly more could be done.

In fact, the USAF “unveil[ed] plans [in November 2015] intended to ease the workload for drone pilots, boost their prospects for career advancement, and upgrade living and working conditions on drone bases across the United States.”<sup>150</sup> USAF officials did a listening tour of 13 bases where RPA operators work and have consolidated recommendations designed to make it possible to reach the aggressive recruitment, training, and retention goals the organization must meet to keep up with demand for drone operations – for example, in Fiscal Year (FY) 2016, the USAF aims to train over a third more RPA operators than it did in FY 2015.<sup>151</sup> Common complaints that the USAF hopes to mitigate through these forthcoming plans include overwork (drone pilots “fly” an average of 900 hours per year compared to 250 hours per year for fighter pilots), little chance of promotion, as well as it being an “extremely stressful and extremely difficult,” “mentally fatiguing” job.<sup>152</sup> One of the major changes RPA operators will see is a \$10,000 increase in incentive pay – from \$25,000 to \$35,000.<sup>153</sup>

If efforts to lower the workload for drone operators are successful, the RPA force will need to grow not just to keep pace with the increasing operations tempo of drone missions but also in order to compensate for the inherent reduced capacity for operators that a decreased workload entails. The USAF will need the morale of their RPA units to reflect improvement in order to attract additional talent to fill these slots and decrease

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<sup>150</sup> W.J. Hennigan, “Air Force Struggles to Add Drone Pilots and Address Fatigue and Stress,” *Los Angeles Times*, November 9, 2015, <http://www.latimes.com/nation/la-na-drone-pilot-crisis-20151109-story.html>, accessed November 9, 2015.

<sup>151</sup> Ibid.

<sup>152</sup> Ibid, quoting retired RPA operator Peter “Pepe” LeHew.

<sup>153</sup> Stephen Losey, “RPA officer incentive pay to increase to \$35K under new law,” *Air Force Times*, November 27, 2015, <http://www.airforcetimes.com/story/military/2015/11/25/congress-wants-to-hear-plan-to-boost-rpa-manning/76258546/>, accessed November 27, 2015.

burnout. Hopefully this will serve as an incentive to also address mental and emotional health issues that the RPA force experiences.

### ***Mental Health Outcomes***

“A lot of people look at me like, how can you have PTSD if you weren’t active in a war zone? Well, technically speaking every single day I was active in a war zone. I mean, I may not have been personally harmed but I was directly effecting people’s lives over there every single day. There is stress that comes with that, with having to fire, with seeing some of the death, with seeing what is going on, having anxiety, looking back at a certain situation or incident over and over and over, you know, bad dreams, loss of sleep. You know, it’s not like a videogame, I can’t switch it off. It’s always there. There was a lot of stress with that. They call it virtual stress.”<sup>154</sup>

Although the data thus far indicate that RPA operators experience lower levels of PTSD than the men and women who have been deployed to Iraq and Afghanistan, there are several factors that lead researchers to believe that mental health issues are underreported in this community. First, drone operators face the same stigma for admitting to their mental health issues as other service members. This problem has been discussed at length in previous chapters, but it can be summarized by reiterating that while military culture is evolving and has become more accepting of and encouraging to those with mental health issues, there is still a strong de facto taboo related to admitting “weakness.”

Additionally, it is difficult for RPA operators to justify feeling the effects of combat when their missions are not well understood – and often covert – and many people believe they have “cushy” military assignments because they are far from the front lines. Since drone operators are usually not portrayed or perceived as heroes in the same way that those service members who are in physical danger are, their social

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<sup>154</sup> Asaro, Peter M., “The labor of surveillance and bureaucratized killing: new subjectivities of military drone operators,” *Social Semiotics*, 2013, Vol. 23, No. 2, 219.

construction is less positive than for those who are deployed. They are often depicted as the “Chair Force” instead of “Top Gun.”<sup>155</sup> That means that others, perhaps including their acquaintances, friends, and family, believe they are less deserving, and that can be internalized so that the service members themselves feel they do not deserve the same sympathy or assistance that their colleagues in combat should receive.

RPA operators have additional disincentives to being diagnosed with mental health issues that are related to but separate from the direct implications of stigma. There are tangible repercussions for their careers as pilots; a mental health diagnosis likely leads to being grounded (unable to fly) for an undetermined length of time, and that could significantly set back or even end one’s career in the service. Military culture does remain a hierarchical one, and taking time away from flying could delay opportunities for promotion. Regardless of the effort USAF command puts into mental health awareness programs and initiatives, if service members see coming forward or requesting treatment as detrimental to their careers, they are unlikely to do so. And “[i]t is unclear how many drone operators may have minimized the degree of PTSD symptoms they were experiencing when completing the screening tool[s]” due to their concerns about anonymity.<sup>156</sup>

Do the numbers support these impressions in demonstrating that there is significant reason for concern over the mental health outcomes of RPA operators? While data are limited, enough information has been gathered to show that the mental and emotional health of RPA operators bears monitoring:

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<sup>155</sup> W.J. Hennigan, “Air Force Struggles to Add Drone Pilots and Address Fatigue and Stress,” *Los Angeles Times*, November 9, 2015, <http://www.latimes.com/nation/la-na-drone-pilot-crisis-20151109-story.html>, accessed November 9, 2015.

<sup>156</sup> Wayne Chappelle, Tanya Goodman, Laura Reardon, and William Thompson, “An analysis of post-traumatic stress symptoms in United States Air Force drone operators,” *Journal of Anxiety Disorders* (28) 2014, 485.

- Electronic military medical records – as of 2013 – indicate that “less than 1% of USAF drone operators are diagnosed with *and receive treatment for* PTSD.”<sup>157</sup> (emphasis mine)
- Drone operators have a higher risk – about 5%, or twice the rate – of being diagnosed with PTSD than noncombat airmen co-located on the same bases, but this is about a third of the average assessed incidence rate of PTSD among soldiers returning from deployment to Iraq or Afghanistan.<sup>158</sup>
- In 2011, 26.35% of active duty drone operators surveyed reported experiencing high levels of emotional exhaustion.<sup>159</sup>
- “[H]igh levels of distress ... may be reasonably perceived to elevate the risk for human factor contributions in USAF drone mishaps.”<sup>160</sup>
- In turn, mishaps or mistakes can increase feelings of guilt, which can contribute to the development of PTSD as discussed earlier in this paper.
- Predictors of elevated emotional distress among the RPA operators at DCGS include time on station (those operators on station more than two years were 2.56 times as likely to report distress), working in an intelligence role (intelligence operators were 1.78 times as likely as non-intelligence counterparts to report distress), working more than 40 hours a week (those working between 50 and 60 hours per week were 3.12 times as likely to report distress as though working 40 or fewer hours per week), gender (females were 1.72 times as likely as men to report distress), and rank (enlisted airmen were 2.46 times as likely as officers to report distress).<sup>161</sup>

While the data clearly show a disparity between the incidence rates of PTSD among those deployed to combat zones and RPA operators, with the latter suffering a lower percentage of PTSD diagnoses, there is still a sufficiently high incidence rate of PTSD and emotional distress among RPA operators to impact their ability to perform well professionally, the readiness of their teams, and the individuals’ long-term mental health. Purely by running the numbers, if five percent of drone operators likely suffer from PTSD, and drone operators continue to make up an increasing percentage of the

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<sup>157</sup> Ibid, 481.

<sup>158</sup> Ibid.

<sup>159</sup> Joseph A. Ouma, Wayne L. Chappelle, and Amber Salinas, “Facets of Occupational Burnout Among U.S. Air Force Active Duty and National Guard/Reserve MQ-1 Predator and MQ-9 Reaper Operators,” Air Force Research Laboratory 711<sup>th</sup> Human Performance Wing School of Aerospace Medicine, released June 2011, 1.

<sup>160</sup> Wayne Chappelle et al, “Symptoms of Psychological Distress and Post-Traumatic Stress Disorder in the United States Air Force ‘Drone’ Operators,” *Military Medicine*, 179, 8:63, 2014, 64.

<sup>161</sup> Lillian Prince, et al, “Reassessment of Psychological Distress and Post-Traumatic Stress Disorder in United States Air Force Distributed Common Ground System Operators,” *Military Medicine*, 180 (2015), 175.

overall USAF as well as take on a greater share of vital missions, then even five percent will be a significant number of service members whose performance and readiness level will measurably impact the health of the force and its capabilities.

### III. Discussion

“The psychological strain facing these drone operators is real. The mental health concerns within the fleet are so pressing that a 2014 study in *Military Medicine* recommended embedding mental health professionals within drone operation centers.”<sup>162</sup>

Following the last chapter’s discussion, it is interesting to note that the lower incidence rate of PTSD within the RPA force has been attributed by scholars in part to the fact that embedded behavioral health providers (EBHPs) have already been integrated into RPA units. After a 2012 study led by Wayne Chappelle, “the USAF has embedded operational clinical psychologists with high level security clearances within active duty drone units. This has increased access to care and treatment to help mitigate the impact of potentially troublesome and emotionally challenging events.”<sup>163</sup> While there are certainly many factors that lessen the trauma load on RPA operators compared to their deployed counterparts, this is promising in terms of both the strategic planning that the USAF is undertaking and for the EBHP model generally. It also provides for an additional assessment avenue for the EBHP model, which will have military-wide implications.

The fact that USAF command is sufficiently focused on the issue of mental health to have brought EBHPs into the RPA force is a positive trend. In a constrained budget

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<sup>162</sup> Tommy Tobin, “The Hidden Cost of Drone Combat,” *The Harvard Law School National Security Journal*, April 24, 2015, <http://harvardnsj.org/2015/04/the-hidden-cost-of-drone-combat-soldiers-mental-health/>, accessed September 17, 2015.

<sup>163</sup> Wayne Chappelle, Tanya Goodman, Laura Reardon, and William Thompson, “An analysis of post-traumatic stress symptoms in United States Air Force drone operators,” *Journal of Anxiety Disorders* (28) 2014, 483-484.

environment, the USAF prioritized mental health care accessibility for its remote operators. What is difficult to determine is the question of acceptability; regardless of accessibility, do RPA operators feel that they can avail themselves of the mental health care assistance available to them without negative consequences for their careers or the way they are viewed by their colleagues and others? This is a subjective analysis, but the commentary from some of the RPA operators that has already been described in this chapter makes it appear that acknowledging mental health issues, particularly PTSD, is still not the norm. Likely this is partially due to the statistically lower incidence rate among remote operators but it is unclear whether those statistics are an accurate representation of the force or skewed to a degree by the effects of stigma. However, the fact that service members perceive that disclosing a mental health condition will have a negative impact on their career – particularly for pilots – likely figures into this statistical disparity.

Similarly, as previously discussed, another question that bears investigating is whether an analysis can be done that relies less on self-reporting. It does not appear that there are publically available data from the EBHPs within RPA units, but an analysis of the experiences and needs of remote operators would likely be invaluable to USAF leadership in determining the best ways to support mental and emotional health. If there are mandatory assessments for drone pilots and sensor operators, EBHPs may have more accurate data than what surveys subject to response bias can provide. Knowing more about the mechanics of the EBHP program within RPA units would also be informative from the perspective of understanding how stigma impacts the RPA force; do operators seek out counseling and other forms of assistance or do they take part in it only when it is



mandatory? The answer to this question would give critical insight into whether command is encouraging healthy behaviors and whether there has been a shift in military culture toward acknowledging and openly discussing these serious mental and emotional health issues.

Further, the predictors of elevated emotional distress among RPA operators bear further investigation. These seem to speak to the idea that remote operators are, in a sense, living a dual life by performing in virtual combat roles during their shifts and transitioning directly into the civilian world when they are off duty. They find the administrative details of their jobs just as stressful as anyone who works in an office. Yet the problem that undergirds these concerns is that they distract from remote operators' very serious work, which has much bigger consequences than your typical office worker's assignments. Feeling overworked and under-rested contributes to emotional and mental health issues and impacts performance. The burnout rate among RPA operators indicates that while they are often suffering from less severe mental and emotional health issues than diagnosable PTSD, factors like exhaustion and cynicism are common,<sup>164</sup> and these issues negatively affect readiness and would exacerbate clinical issues such as PTSD.

#### **IV. Analysis & Further Study**

While current research is somewhat impeded by the limits on available data, both because the data that are available rely largely on self-assessment and because it is a relatively new area of study, it is clear that the USAF is sufficiently concerned with the issue of mental health among remote operators to devote resources to its study and, ideally, prevention – through the employment of EBHPs. The stressors inherent in this

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<sup>164</sup> Ibid, 481.

unique work environment can contribute to mental health outcomes and are difficult to categorize in familiar ways.

Remote operators are both at home and deployed, simultaneously elite airmen and second-class citizens. These dualities are touched upon in the existing research through the concerns voiced over the competing stresses of virtual combat and maintaining a normal home life, and these dual identities likely help define the experience of being a drone pilot or sensor operator. Performing at a high level at work and taking part in a normal civilian life outside of work hours can be a draining experience. At the same time, drone operators face a sort of prejudice about the courage of their work within the military and the morality of their work in the broader population. The USAF has tried to address some of the morale issues – and burnout rate – in the RPA force through awarding pilots’ wings to RPA pilots:

“Within the military hierarchy, and especially within the US Air Force, being a pilot carries a special, prestigious status and identity. It is expensive to train pilots, and it is physically and mentally demanding to fly. Pilots are accordingly seen as a distinct and privileged class within the military. Indeed, only they are allowed to wear “flight wings” insignia on their uniform to designate them to all as pilots. ... Within the Air Force, only officers can be pilots, whereas the other branches permit enlisted service members to fly some types of aircraft. Initially, the Air Force did not grant pilot status and wings insignia to drone pilots, at least not for their drone training and duties alone, because some drone pilots had wings before becoming drone operators, those who did not [felt] left out and perceived themselves as having a significantly lower status. In this way, the lack of wings and full pilot status for drone pilots led directly to one form of the “career stress” Ouma et al. discuss. That is to say for those who were manned aircraft pilots, moving to drones was seen as less prestigious than flying manned aircraft, and thus such an assignment meant a lowering of both current status and of future career prospects. It also made it more difficult for them to acquire the flight time needed to keep their wings and, with no clear career route to return to flying manned aircraft, it could mean the eventual loss of their status as pilots. For those who came in without pilot’s wings, there was little or no hope of ever getting

them, or the prestige and status associated with wearing them.”<sup>165</sup>

While it may seem like a small gesture, officially equating the value of drone pilots’ work with that of their counterparts in manned aircraft and designating them as an equally talented part of the force reflects that the USAF is prioritizing RPA operations and operators in its future plans. The distinction between pilots of manned aircraft and RPA operators will likely persist as part of USAF culture for some time to come, but this symbolic step at least demonstrates that USAF command understands the importance of the role the RPA force is playing and will continue to play, and the imperative to respond to the needs of that community to maintain their health and readiness.

Another step the USAF took to legitimize and boost morale within its drone force was in how it refers to drones. Originally referred to as UASs or Unmanned Aerial Vehicles (UAVs), the USAF determined that the “unmanned” portion of the name insulted the duties and responsibilities of its operators, “imply[ing] that the systems were autonomous.”<sup>166</sup> Dubbing them “remotely piloted aircraft” reemphasized the human element that is in reality still integral to their operation. Conferring pilots’ wings and renaming equipment are potentially meaningful but entirely symbolic manners of addressing morale within the RPA force.

More concrete measures are needed. Embedding behavioral health providers may be a positive step, if they are effective (which warrants further investigation per last chapter’s discussion), but moreover, reforms that would give remote operators license to pursue mental health treatment and be open about mental health challenges without fear of career repercussions would add great value here. An organization like the military that

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<sup>165</sup> Asaro, Peter M., “The labor of surveillance and bureaucratized killing: new subjectivities of military drone operators,” *Social Semiotics*, 2013, Vol. 23, No. 2, 215-216.

<sup>166</sup> *Ibid*, 216.

invests so heavily in its people must take a strategic approach that factors in long-term cost-benefit analysis. That is to say that while mental health issues must be taken seriously and service members must be mentally fit, policies should be put into place that mean that a mental health diagnosis is not the end of a pilot's career. A distressed individual whose decision-making skills are compromised by their emotional state should not be making life or death decisions as RPA operators do, but an individual who is actively managing a mental health diagnosis with the guidance of a mental health care provider might be a different case entirely. Policies that remove the disincentives for seeking mental health care will be important both in order to gather accurate information and to address the problem.

Since drone warfare is still relatively new and the study of its mental and emotional health impacts on operators is even newer, there is much still to be learned about what challenges it presents and how the military should respond to them. Further study should seek to better understand the distinctive ways mental health stigma impacts this unique community and find ways of collecting more extensive, more accurate data. Without additional information, it is difficult to assess the extent of the problem and the USAF will not know if the measures it is taking are effective or not. Further research into the dual military and civilian roles remote operators play and how that affects emotional and mental health would also be helpful in making these evaluations in the future. It will be important to better understand whether that element of the lifestyle exacerbates the impacts of other experiences like the trauma of participating in violence in order to set up RPA unit-specific prevention and mitigation measures for mental and emotional stressors.

Mental health can be difficult to measure especially in a way that has sufficient equivalence to compare different individuals in a range of professional and personal situations. Researchers focusing on mental health care in the military must continue to examine the ways remote operators experience stressors – from virtual combat trauma to mundane office policies – to see how it compares to how those service members who deploy experience them. This knowledge would help the military prevent, diagnose, and treat mental and emotional health issues when they do manifest in the RPA force by employing lessons learned and best practices from deployed units when applicable and adapting those approaches when necessary to be effective for the RPA operator community. Strategically, it would also be an important part of transitioning the USAF toward more and more remote missions by learning where factors in mental health challenges overlap and where they diverge.

Continued study of how operating drones differs from traditional combat experience would also be beneficial. This kind of operation is designed specifically to distance service members from the front lines but the advanced technological capabilities that are integrated into the machines can also make remote operators feel close to the action through the surprising amount of detail it conveys. Research thus far shows that RPA operators have no videogame-like illusions when it comes to their work, but the question of how the sometimes graphic content they bear witness to imparts trauma as compared to how fighter pilots' or ground troops' experiences affect them is much less clear. As we move toward a preference for military operations that keep our service members physically safe we should be certain we understand how this kind of work affects their minds. The military should do what it can to promote and maintain a

resilient, ready force, and understanding all these factors will determine how well that can be accomplished in the future.

Finally, the EBHP model itself must be examined. As it is implemented more broadly, researchers should be able to gain a better understanding of whether it is effective. EBHPs certainly increase access to care, at least in theory, but the key question here is whether they can successfully combat stigma. Are members of units that include EBHPs more likely to seek mental health counseling? If so, the model may represent a way to counter ingrained military culture when it comes to changing these norms. However, until proven, the EBHP model remains in the category of approaches that do no harm but may not ultimately achieve their ambitious goals.

## **V. Recommendations**

Most of all, this paper shows that additional research is necessary in order to set logical policy for a successful future military. Several additional avenues for this research were outlined just above, but to sum up, key recommendations for research include the development of data sources that do not entirely rely on self-assessment and self-disclosure, which will drive toward clearer and more complete data, and better assessing the unique working and living conditions that distinguish the stressors on RPA operators from those that trouble their deployed colleagues. A better understanding of how pervasive PTSD is among RPA operators will help the USAF and other military branches and agencies set priorities and allocate resources. A better understanding of how new types of missions affect service members will help the military transition to a new way of doing battle.

The USAF should ensure that its RPA operators go through mandatory and non-self-administered mental health assessments. EBHPs currently embedded on RPA bases or other USAF health care providers may be doing this, but if that is the case the data are currently inaccessible. Service members who return from deployment must always submit responses to a questionnaire – the HRB surveys referred to in Chapters I and II – and submit to follow-ups as dictated by medical professionals; one of the challenges for RPA forces is that there are no bounds for their deployment so knowing when to make mental health care assessments is difficult. Because the EBHPs currently working with RPA operators have sufficient security clearances to know some details of the missions their patients undertake, it seems logical that in addition to regular assessments that could be paired with military physical tests, EBHPs could be in a position to complete assessments of individuals or teams as needed after a difficult mission or mistake occurs.

The military must make careful assessments before reorganizing, reallocating resources, adjusting its capabilities, or making big personnel changes. In the long-term, the shift toward remote operations will do all of these things. Therefore, understanding the impacts on personnel and readiness that this shift will have is critical, and one component of that information is how these different missions and operating environments will impact mental and emotional health and the general wellbeing and readiness of service members. Sufficient resources must be expended on gathering data and coming to an understanding of how the force of the future will need to be supported to be its most effective if this shift is to be completed successfully. Ideally this change in tactics would lead to an exponential decrease in casualties and the difficult questions affecting other aspects of the health of the force would be answered in time to take

proactive measures during the changeover to a drone-centric force as well as prevent negative mental health outcomes among remote operators.

## **VI. Conclusion**

While PTSD likely plays a less prominent role in the mental and emotional health of remote operators than for those who are physically deployed, other factors make drone operations mentally and emotionally draining. As a result, the USAF and other branches and agencies fielding remote operators must prioritize providing accessible mental health care and foster an atmosphere that encourages those operators in need of that care to seek it. Further work must be done in order to understand how the violence remote operators witness and participate in affects their mental and emotional state; anecdotal evidence suggests that it has similar effects for remote operators as for those who are on the battlefield, but at present the hard data we have on PTSD among RPA operators are incomplete and does not show as strong a correlation. RPA operators, however, do report significant impacts from other mental and emotion stressors, which also merit additional evaluation. Their unique status in the military and in civilian life could also influence their wellbeing because in some circumstances it multiplies rather than alleviates sources of stress.

At this stage, there is much left to clarify as the military moves forward with its transition to more remote operations and the different living conditions and work stressors that come with that for its service members. It is clear that unique mental and emotional health challenges exist for this population, and these issues will only become more significant as that community increases in size and importance to the DOD's mission and to U.S. national security. A proactive stance that encourages as much data



gathering and troubleshooting now, while the transition to this mission focus is still underway, will lay the groundwork for a successful, resilient, ready remote force in the future.

## **Conclusion**

Mental and emotional health issues have significant impacts on the health of the force, and the U.S. military must continue to find and implement better mental health care strategies in order to promote readiness and national security. Efforts to identify, measure, mitigate, and respond to these issues need to be included in DOD's strategic planning. Diagnoses such as PTSD and depression have manifested across the force, particularly among service members returning from Afghanistan and Iraq, and new attitudes and treatment policies need to be in place throughout the military to enable a robust conversation, increase access to care, and reduce stigma.

Mental and emotional health issues have a financial cost and a cost to our military readiness. As discussed in Chapter I, there are substantial consequences associated with failing to sufficiently address the causes and symptoms of mental health disorders within the military. Not only would the military workforce be less effective if mental and behavioral health issues become a drain on human capital, its ability to successfully pursue its many mission objectives could suffer. The financial cost of absenteeism, presenteeism, and separation from the military of valuable, skilled service members is certainly significant given the size of DOD's workforce, and the resulting cost to readiness could be of great consequence to our defense capabilities. Losing service members from a unit at the time of its deployment due to behavioral health issues complicates strategic planning and may make it difficult for the remaining team members to achieve their objectives due to decreased manpower.

EBHPs may potentially serve as one aspect of the solution. The EBHP model was designed to address both problems the military faces with access to care and the

stigmatization of those who suffer from mental or emotional health issues. Chapter II examined this model's potential effectiveness and found that while there is a great deal of data-gathering left to do, anecdotal evidence indicates that EBHPs have a positive impact on the military communities they serve – both the individuals and their commands. Even if highly effective, EBHPs will not be able to entirely remedy the issues surrounding mental health care in the military, but ensuring that all service members can access mental health care when they need it and working to destigmatize mental health diagnoses are two key elements of the solution that the program supports. EBHPs have joined RPA operator units, for example, and may be playing a role in keeping the incidence rate of mental health disorders in that population lower in comparison to service members returning from deployment.

While deployed service members certainly suffer trauma in a more direct way and likely in higher numbers than RPA operators, the mental health care needs of remote forces need to be carefully considered in future planning. Chapter III discussed the nature of mental and emotional health challenges that remote operators face and found that while they are not proven to be comparable to the incidence rates or severity seen among previously deployed service members, there are significant concerns that stigma and perceived career implications have limited self-reporting of these issues, and the data suggest that RPA operators do experience emotional stress related to their work and the conditions in which they work. Drone missions will likely take up an increasing amount of mission space as we move forward, so learning how pilots, sensor operators, and intelligence coordinators respond to the demands of this unique work will inform strategic decisions as DOD plans for the future.

This is an important topic for the simple reason that the mental and emotional health challenges inherent in a military engaged in combat will not diminish in the future. The best way to ensure that the U.S. has a healthy force that is ready to tackle the variety of missions it is charged with is threefold: take measures that help command better understand the sources of these issues, increase access to quality mental health care across the force, and counter the stigmatization of mental health diagnoses in our society. These three objectives are self-reinforcing, for example, decreasing the stigma associated with mental health issues would encourage treatment-seeking behavior and thereby allow for a more accurate understanding of the problem. This paper shows that these common sense goals should be integrated into the military's strategic planning as a priority in its personnel and readiness portfolio. Failing to do so will lead to a drain on DOD human capital and will make it more difficult to address other threats to national security.

Moreover, it should be clear that it is to the military's benefit to address these issues proactively. The financial costs of unacknowledged and untreated mental health conditions, as laid out in detail in Chapter I, show that preventative and early treatment options are less costly than the absenteeism, presenteeism, and loss of skilled labor that come with ignoring the problem. The USAF seems to be taking this advice with its incorporation of EBHPs into its RPA units, though it is unclear whether that program has sufficient support from initiatives to decrease stigma to be effective. As the technology of warfare evolves and military missions change, it will be important to build a resilient force so that our hard power is not eroded by the failure to address mental, behavioral, and emotional health issues.

Previous scholarship has already sought to improve quantitative data on incidence rates of conditions like PTSD and depression, but more accurate data sets remain a crucial pursuit for future research and will be essential for policymaking. Relying on self-assessments and potentially biased sources is a counterproductive means to identify solutions. Further research must be done to understand the interaction between military culture and values with the need to bolster treatment options and service members' openness to them, as well as learn more about the effectiveness of current measures being implemented by the military, including the EBHP model. Additionally, it will be important to do forward-looking research to learn more about the effects of service as a remote operator on mental and emotional health. This will help the USAF and other branches take proactive measures to ensure the force of the future has the resources it needs to be healthy and successful. There are many avenues of study related to the issue of mental health care in the military that are yet to be sufficiently explored, but some pressing questions have been outlined here and throughout this paper.

My work was limited in scope and did not cover several interesting aspects of military mental health care. One concept for potential future work related to Chapter II's treatment of service members' and veterans' social construction would be to investigate the way that Congress and other policymaking bodies are lobbied on this topic. It would be interesting to know more about how the American public views these problems and whether the link between mental health care in the military and national security is generally considered to be a concern. It would also be worthwhile to examine military mental health care from the perspective of military family members, a group that would be well informed and vested in these issues but may have limited avenues for advocating

for change. Designing effective mental health treatments is, of course, a medical question, and that essential aspect of these policy questions is definitely outside of the scope of this paper and beyond the expertise of its author. As new treatments for conditions like depression and PTSD are put forward, tested, and found to have merit, they should be integrated into military treatment options. And, it should go without saying, adequate funding and support for research to identify improved treatment options needs to be made available.

As research continues into the best treatments and mechanisms for providing it to service members and veterans, one potentially helpful source for data and ideas may be the first responder community. Police, firefighters, and emergency medical technicians (EMTs) also experience trauma including fatalities, grisly scenes, and sometimes having to take violent actions. Like RPA operators, they also do not deploy and must compartmentalize these experiences within their home life. And as with the broader military community, the first responder culture adheres to the idea that “tough guys don’t cry,” and must work hard to counter the problems posed by stigma.<sup>167</sup> One method that has proved effective in the first responder community is peer to peer counseling. An example is COP-2-COP hotlines where retired police officers and mental health professionals are available to speak with current officers and other first responders in crisis.<sup>168</sup> While crisis hotlines do exist for service members and veterans, it may be worth investigating whether there are ways for military mental health providers to leverage trusted validators like other service members or veterans to encourage treatment-seeking

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<sup>167</sup> Adam Stone, “Beyond Debriefing: First Responders Need Time with Colleagues to Decompress After Responding to an Incident,” *Emergency Management*, September/October 2013, 25.

<sup>168</sup> William J. Ussery and Judith A. Waters, “COP-2-COP Hotlines: Programs to Address the Needs of First Responders and Their Families,” *Brief Treatment & Crisis Intervention*, Oxford University Press UK, January 4, 2006, 70.

behavior. The similarities of these target populations makes it likely that there are lessons to be learned from each that can benefit the other as we seek improved mental health outcomes.

This paper also did not include a discussion of the morality of our military actions. Pragmatically speaking, warfare – or sending military advisors, or special operations units into areas of conflict – will be a part of our international relations and national security policy as far into the future as we can anticipate. There are bad actors in the world who the U.S. will not ignore. However, as long as we must send service members into combat, there will be a tension between the need to train men and women to kill and the need they have to reintegrate as seamlessly as possible into civilian society. The act of killing impacts the psyche in ways that we are still trying to understand, and part of that is making the judgment about whether it is right or wrong. Taking lives in combat and the guilt that can cause influences mental health outcomes for those who serve their country. As we continue to study mental health care in the military, and especially as our military transitions to increased remote operations that are often perceived as less moral, it will be important to understand the internal and externally imposed ethical dilemmas our service members face. The judgment of others was considered to an extent in the context of the social construction of service members and veterans, but no discussion of the morality of sending people to war was possible within the limited range of topics in this paper.

Military service includes many inherent risks but political and military policymakers should work to minimize them. Sadly, some of the situations in which our military loses the assistance of its skilled workers – through absenteeism, presenteeism,

separation, or, most tragically, through suicide due to service-related mental health issues – are predictable and therefore some of these consequences are preventable. A more proactive posture on mental health care aimed at increasing access and decreasing stigma would benefit DOD’s finances and readiness and could play a role in changing an entrenched culture of stoicism that negatively affects service members’ ability and willingness to seek care.

If the U.S. continues down the path of increasing its remote operations – and all indications point toward that being the case – it will be a challenge for DOD to take mental, behavioral, and emotional health into account during its planning and transition stages. While the extent of mental health impacts stemming from service as a remote operator remains unclear, it is undeniable that there are unique stressors at work on the RPA workforce that need to be better analyzed. With more information, it should be possible for the USAF and other services to take precautions to prevent negative mental health outcomes, as has already been attempted by embedding behavioral health providers in RPA units. The transition underway to reorient the USAF toward more drone missions will be no easy matter, but it affords DOD the opportunity to take a proactive stance on mental health and integrate evidence based solutions into their planning for staffing and health care. So it will be critical to quickly gather that evidence in order to take advantage of this moment of opportunity to improve.

The DOD is an incredibly large organization and so it is difficult to take individual needs into account when making personnel decisions and planning for the logistical needs of the Department. However, though it is certainly more difficult, it would benefit the organization to ensure that individuals are considered as unique and



valuable when it comes to assessing mental health conditions and mental health care needs. It will require an investment to better assess service members for mental health conditions and provide them with appropriate treatment options, but if future programs are effective, that investment will have a high yield in terms of preventing the turnover of personnel who already required a substantial investment in their training, and building a stronger, more resilient, healthy force. It would also have broader societal benefits through the contributions veterans make to their communities and the economy once they do separate from service or retire, which they are better armed to make if they have the tools to mitigate and treat the mental health issues that confront them.

While there are a great deal of data on military mental health left to gather and analyze, the information we do have points clearly to a need for more strategic thinking to address the issue. Failing to help service members cope with their mental health challenges has direct implications for military readiness and, therefore, national security, and finding solutions must be prioritized to reflect that fact. As the military adapts its missions to reflect new realities in warfare, it will be prudent to evaluate how these strategies and tactics negatively affect service members' mental health and provide resources that mitigate these effects. Healthier service members make for a healthier, more effective force, which will better defend our nation.

## Appendix 1

Department of Defense					
Active Duty Military Personnel by Rank/Grade					
September 30, 2015					
Rank/Grade	Services				Total Services
	Army	Navy	Marine Corps	Air Force	
GENERAL -ADMIRAL	11	10	4	13	38
LT GENERAL -VICE ADMIRAL	48	35	17	41	141
MAJ GENERAL -REAR ADMIRAL (U)	123	63	27	97	310
BRIG GENERAL -REAR ADMIRAL (L)	134	108	33	145	420
COLONEL -CAPTAIN	4,150	3,200	671	3,219	11,240
LIEUTENANT COL-COMMANDER	9,249	6,731	1,869	9,372	27,221
MAJOR -LT COMMANDER	16,500	10,619	3,774	12,716	43,609
CAPTAIN -LIEUTENANT	29,064	18,586	6,427	21,448	75,525
1st LIEUTENANT-LIEUTENANT (JG)	12,161	6,327	3,567	7,429	29,484
2nd LIEUTENANT-ENSIGN	8,132	6,878	2,190	6,524	23,724
CHIEF WARRANT OFFICER W-5	619	72	106	0	797
CHIEF WARRANT OFFICER W-4	2,105	397	280	0	2,782
CHIEF WARRANT OFFICER W-3	4,188	620	616	0	5,424
CHIEF WARRANT OFFICER W-2	6,255	560	879	0	7,694
WARRANT OFFICER W-1	1,871	0	188	0	2,059
<b>TOTAL OFFICER</b>	<b>94,610</b>	<b>54,206</b>	<b>20,648</b>	<b>61,004</b>	<b>230,468</b>
E-9	3,441	2,572	1,539	2,439	9,991
E-8	11,396	6,354	3,778	4,915	26,443
E-7	36,808	21,095	7,859	23,818	89,580
E-6	57,796	46,959	13,177	38,854	156,786
E-5	70,068	62,849	26,745	59,951	219,613
E-4	119,318	58,406	37,188	62,459	277,371
E-3	46,215	45,563	41,744	41,173	174,695
E-2	27,236	15,048	19,703	4,757	66,744
E-1	20,049	10,282	11,036	7,956	49,323
<b>TOTAL ENLISTED</b>	<b>392,327</b>	<b>269,128</b>	<b>162,769</b>	<b>246,322</b>	<b>1,070,546</b>
<b>CADETS-MIDSHIPMEN</b>	<b>4,428</b>	<b>4,467</b>	<b>0</b>	<b>4,031</b>	<b>12,926</b>
<b>GRAND TOTAL</b>	<b>491,365</b>	<b>327,801</b>	<b>183,417</b>	<b>311,357</b>	<b>1,313,940</b>

Note: Marine Corps End Strength number does not include 62 recruiters who are on Extended Active Duty (EAD) who have served over 1095 days, and 74 Reservists who have served over 1095 days.

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<sup>169</sup> Defense Manpower Data Center, "Active Duty Military Personnel by Service by Rank/Grade," DoD Personnel, Workforce Reports & Publications, September 2015, [https://www.dmdc.osd.mil/appj/dwp/dwp\\_reports.jsp](https://www.dmdc.osd.mil/appj/dwp/dwp_reports.jsp), accessed December 3, 2015.

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## **Curriculum Vita**

Kathryn Grant was born January 8, 1987 in Vancouver, Washington. She received a Bachelor of Arts degree in Government and Legal Studies concentrating in International Relations from Bowdoin College in Brunswick, Maine in May 2009. Her second major area of study was Spanish Language and her minor area of study was Visual Arts. During her undergraduate education she also studied abroad at the University of Granada in Granada, Spain and at the Lorenzo de' Medici Institute in Tuscania, Italy. She began her studies at the Johns Hopkins University Zanvyl Kreiger School of Arts and Sciences in September 2013.