Florida Institute of Technology

Scholarship Repository @ Florida Tech

Theses and Dissertations

1-2017

Female Student Veterans: A Survey of Current Transition Challenges and Issues from Active Duty to Collegiate Life

Nicole Starr Biondoletti

Follow this and additional works at: https://repository.fit.edu/etd



Part of the Clinical Psychology Commons

Female Student Veterans: A Survey of Current Transition Challenges and Issues from Active Duty to Collegiate Life

by

Nicole Starr Biondoletti

Bachelor of Science Psychology University of Central Florida 2012

Master of Science Psychology Florida Institute of Technology 2015

A Doctoral Research Project Submitted to the School of Psychology at
Florida Institute of Technology
In partial fulfillment of the requirements for the degree of
Doctor of Psychology

Melbourne, Florida January, 2017

We the undersigned committee hereby approve the attached doctoral research project

Female Student Veterans: A Survey of Current Transition Challenges and Issues from Active Duty to Collegiate Life

by

Nicole Starr Biondoletti, M.S.

Richard T. Elmore, Jr., Ph.D. Associate Professor School of Psychology Committee Chair Kristi Van Sickle, Psy.D. Associate Professor School of Psychology Committee Member

John Frongillo, Ph.D.
Assistant Professor
School of Arts and Communication
Committee Member

Mary Beth Kenkel, Ph.D. Professor and Dean School of Psychology

Abstract

TITLE: Female Student Veterans: A Survey of Current Transition Challenges and Issues from Active Duty to Collegiate Life

AUTHOR: Nicole Starr Biondoletti, M.S.

MAJOR ADVISOR: Richard T. Elmore, Jr., Ph.D.

Research on the student veteran population is extremely limited. The literature does tell us, however, that mental health difficulties in veterans has been present for thousands of years, and that recent warfare has led to a steady increased in posttraumatic stress and suicidality. In addition, there has been an exponential increase in veterans enrolling in post-secondary institutions due to the appealing benefits of the post-9/11 GI Bill. The result of these two facts are a relatively new population with unique challenges and needs. The present study utilized the PTSD Checklist, Military version (PCL-M), the Suicidal Behaviors Questionnaire-Revised (SBQ-R), the Combat Exposure Scale (CES), and a variety of demographic and academic variables to analyze the transitional difficulties faced by female student veterans as they return to civilian and student life. Grade-point average (GPA) was used as the main outcome variable for academic success. Results demonstrated a strong positive correlation between posttraumatic stress and suicidality, however combat exposure did not significant correlate with suicidality. The results also found that having either a mental disability or having both a mental and physical disability significantly differed from having no disability in regard to suicidality. Additionally, a significant difference was found between married and

divorced female student veterans, with divorced females endorsing higher levels of suicidality. Combat exposure, length of deployment(s), posttraumatic stress, suicidality, perceived academic and perceived social support all yielded insignificant results in terms of their ability to predict GPAs. Finally, combat exposure and branch of service were also insignificant predictors of posttraumatic stress. The limitations, implications, and arguments for further research of the current study are discussed.

Table of Contents

| ABSTRACT | iii |
|--|------|
| LIST OF TABLES | vii |
| ACKNOWLEDGEMENTS | viii |
| INTRODUCTION | 1 |
| LITERATURE REVIEW | 2 |
| Statistics | 2 |
| Historically | 2 |
| Recent Warfare | 3 |
| The GI Bill | 5 |
| Who's going back to school? | 5 |
| Student Veterans Mental Health | 7 |
| Symptomology | 7 |
| Suicidality | 9 |
| College Programs for Veterans | 10 |
| Utilization of services | 10 |
| Changes within higher-level education institutions | 11 |
| STATEMENT OF PURPOSE | 13 |
| HYPOTHESIS | 14 |
| METHOD | 14 |
| RESULTS | 16 |
| DISCUSSION | 22 |
| REFERENCES | 27 |
| APPENDICES | 30 |
| Annendix A: Survey Instructions and Consent Page | 30 |

| Appendix B: Survey Demographic and Other Data | 31 |
|---|----|
| Appendix C: Combat Exposure Scale (CES) | 34 |
| Appendix D: The PTSD Checklist, Military Version (PCL-M | 38 |
| Appendix E: Suicidal Behaviors Questionnaire- Revised (SBQ-R) | 40 |
| Appendix F: Survey Thank You Page | 42 |

List of Tables

| 1. | Descriptive Frequencies of Demographic Variables | 43 |
|------|---|----|
| 2. | Descriptive Statistics and Correlations for PCL-M | |
| | and SBQ-R scores. | 46 |
| 3. | Descriptive Statistics and Correlations for CES | |
| | and SBQ-R scores. | 46 |
| 4. | Analysis of variance between type of disability and suicidality | |
| 5. | Analysis of variance between marital status and SBQ-R scores | |
| 6. | Model summary related to CES scores, length of deployment, | |
| | and PCL-M scores. | 47 |
| 7. | Coefficients related to CES scores, length of deployment, | |
| | and PCL-M scores. | 48 |
| 8. | Model summary related to CES scores, length of deployment, | |
| | and SBQ-R scores. | 48 |
| 9. | Coefficients related to CES scores, length of deployment, | |
| - | and SBQ-R score. | 48 |
| 10. | Model summary related to PCL-M scores, SBQ-R scores, | |
| | and GPA | 49 |
| 11. | Coefficients related to PCL-M scores, SBQ-R scores, | |
| | and GPA | 49 |
| 12. | Model summary related to perceived academic and | |
| | social support and GPA | 49 |
| 13. | Coefficients related to perceived academic and social | |
| 10. | support and GPA | 50 |
| 14 | Model summary related to combat exposure, branch of | |
| 1 1. | service, and PCL-M scores | 50 |
| 15 | Coefficients related to combat exposure, branch | |
| 15. | of service, and PCL-M scores | 50 |
| | of service, and feel in sectes | |

Acknowledgements

I would like to extend my gratitude to a number of individuals without whom this research project would not have been possible. First, I would like to extend my appreciation and gratitude to Dr. Richard T. Elmore, Jr. for his guidance and support as the chair of this research project. Additionally, he has served as a professor, supervisor, mentor, and friend throughout my doctoral program, and has immensely contributed to my professional development. I would also like to thank my committee members, Dr. Kristi Van Sickle and Dr. John Frongillo, for their advisement and feedback on this project. I would like to extend appreciation to my predecessors, particularly David Alexander and Kristen Moore, for being excellent role models who never hesitated to offer help, guidance, or encouragement. A very special thank you is dedicated to my peer, co-researcher, and dear friend Mara Rowcliffe. It was truly a pleasure and honor to work alongside of you, not only for this project, but throughout this graduate school journey. Your calmness and positivity always brightened my day, and I can't wait to see what great accomplishments are undoubtedly in your future. Additionally, I must extend a very big thank you to my peer and roommate of four years, Katie, who has been an incredible friend and supporter since day one of this program. Your friendship has truly been a gift, and this experience would not have been the same without you. My never-ending thanks goes to my mother, Kelly, for her unwavering support and belief in me throughout my life. You taught me the meaning of sacrifice,

independence, and a good work ethic; for those lessons I am eternally grateful, as I would not be where I am today without them. Thank you for being my biggest supporter, role model, and friend; I love you. Finally, I am forever grateful to my husband, Ryan, who has grown with and stood by me for the past eight years. You have contributed to my success in more ways than I can count. I am truly lucky to have such a supportive, loving, smart, and dependable partner throughout this journey. I also have to thank you for bringing me into your family; thank you to my in-laws, who have never fallen short of endless love and support. There are so many people I have encountered that have positively influenced me, so I wish to extend a "thank you" to everyone that has contributed to my growth and success.

Introduction

September 11th, 2001, marked the deadliest foreign attack on United States soil since 1941. In response to the attacks, the U.S. initiated combat operations in Afghanistan in October 2001, named Operation Enduring Freedom (OFE). In 2003, a second war began in Iraq, referred to Operation Iraqi Freedom (OIF). These two wars, in addition to Operation New Dawn (OND), initiated by the Obama Administration in September 2010 to reflect the reduced role U.S. troops will play in securing the country, represent the largest and longest lasting mobilization of the Reserve and National Guard since the Korean War. It is estimated that over two million veterans have returned from deployments overseas as a result of OEF and OIF (Rudd, Goulding, and Bryan, 2011). Rudd et al. (2011) estimated 20% of recent veterans struggle with posttraumatic stress disorder or depression, and 19% have experienced some form of traumatic brain injury. The post-9/11 GI Bill that offers appealing educational benefits to veterans has sent the number of veterans returning to school skyrocketing. The OEF/OIF warfare can be characterized by multiple and lengthy deployments, urban warfare, terrorist attacks, and unremitting threat from improvised explosive devices (IEDs), resulting in unique challenges faced by service members, compared to previous wars in U.S. history (Seal, Bertenthan, Miner, Saunak, and Marmar, 2007). The combination of new physical, psychological, and emotional challenges faced by service members and the substantial benefits available for veterans who qualify have significant implications for college campuses. Questions arise about the degree to which campuses are aware of the potentially unique

challenges faced by student veterans, and their preparedness to deal with these transitional difficulties and provide support. In an effort to raise awareness to these challenges, increasing attention is being given to how we can better understand, assess, and resolve these difficulties for our nation's service members.

Literature Review

Statistics

Historically. Awareness of mental health difficulties associated with exposure to war or combat and its aversive features has been present, in one form or another, for thousands of years. It has been reported there are accounts of deteriorating psychological states of troops involved in The Battle of Marathon of 490 B.C. In 1688, the term "nostalgia" was first used to described the sequela of acute combat stress; although, symptoms were thought to be the result of soldiers' strong desire to return home, as opposed to actual combat exposure (Jones, 2013). Hirst (2015) discusses findings from digitized data on veterans of the American Civil War that showed out of over 15,000 servicemen, 43 percent had mental health difficulties throughout their lives in addition to physical ailments such as cardiac, hypertension, and gastrointestinal problems. The widespread effects of the Civil War for those who served and survived are largely believed to relate to the extremely young age at which servicemen were enlisted. Specifically, between 15 and 20 percent of the Union army soldiers enlisted between ages of 9 and 17 (Pizarro, J., Silver, R., & Prause, J., 2006).

Although the style of warfare has changed over time, the tumultuous psychological effects remain. The first World War was characterized by brutal trench warfare which also involved the utilization of new weaponry. The term "shell shock" was used to described effects of concussions produced from the impact of shells and explosions. Operating under the belief that such conditions were due to certain personality and character deficits, the plan was developed to implement more comprehensive screening procedures, and to use psychiatric testing to identify the potential for psychological deterioration (Pols and Oak, 2007). Although such efforts resulted in the rejection of five million potential service men, 37.5 percent of the 800,000 American soldiers in World War II displayed severe psychological symptoms that resulted in discharge (Jones, 2013.) Prior to The Vietnam War beginning in 1995, it was still widely held that a soldier who sustained and recovered from combat-related psychological deterioration would not suffer long-term mental health consequences; thus, little attention was paid to post-war psychiatric concerns. However, an epidemiological survey conducted 15 years following the United States' withdraw from Vietnam concluded that 480,000 (15%) of the 3.15 million Vietnam veterans were suffering from service-related post-traumatic stress disorder (PTSD). Further, it's estimated nearly 1 million ex-service personnel displayed symptoms of PTSD at one time or another (Pols and Oak, 2007).

Recent Warfare. Hoge et al. (2002) examined data of hospitalizations among all active-duty military personnel from 1990 to 1999 and ambulatory visits from 1996 to 1999 was conducted by using the Defense Medical Surveillance System. These

researchers were able to find that mental disorders were the leading category of discharge diagnoses among men and the second leading category among women, and thus concluded "mental disorders appear to represent the most important source of medical and occupational morbidity among active-duty U.S. military personnel." A 2002 study reported between 15 and 17% prevalence rates of PTSD among Persian Gulf War and Iraq War veterans (Pols and Oak). Bagalman (2013) prepared a report utilizing Veterans Association (VA) data to examine rates of mental disorders among OEF and OIF veterans to help Congress focus allocated resources. Among the findings, Bagalman reported that only 56% of the 1.6 million eligible OEF/OIF veterans obtained VA health care. Among those receiving benefits, 14% met criteria for affective psychoses, which included a range of disorders including major depressive disorder and bipolar disorder, and 22% fell within the category of reporting depressive symptoms that do not meet criteria for other depressive disorders. The VA reports indicate a 29% prevalence rate of PTSD among OEF/OIF veterans from 2002 to 2012, however, recognizing the limitations of this data, Bagalman also notes findings from a 2010 RAND analysis that showed a broad range of PTSD prevalence rates from 1 to 60% among these ex-service members. Also referenced is a 2012 report by the Institute of Medicine that indicates more recent estimates of PTSD prevalence among OEF/OIF service members and veterans range from 13% to 20% (Bagalman, 2013).

The GI Bill. Following World War II, it became a greater priority to aid veterans in the process of reintegration into civilian life. The GI Bill of Rights, or the

Servicemen's Readjustment Act of 1944, served to aid WWII veterans with funding for higher education and created more affordable mortgages (Pols and Oak, 2007). Between 1944 and 1949, almost 9 million veterans received close to \$4 billion through the GI Bill benefits. Up until 1956, the provisions for obtaining higher education reached nearly 10 million veterans, and benefits were extended to help Korean veterans as well (Foner and Garraty, 1991). In 2009, changes were made to the original GI Bill, which until then offered benefits only to certain groups within the U.S. military. The Post- 9/11 GI Bill now entitles all service members to education benefits throughout the VA once they meet the minimum requirement of active-duty service of at least 90 days subsequent to September 10, 2001 (Picker, 2011). Some of the benefits outlined by the U.S. Department of Veteran Affairs (2014) include up to 100% tuition and fee coverage, monthly housing allowances, and up to \$1000 per year for books and supplies.

Who's going back to school? The broadening of opportunities from the generosity provided via the Post- 9/11 GI Bill has consistently increased the number of student veterans since its initiation, states the U.S. Department of Veteran Affairs. From 2007 to 2008, approximately 4% of all undergraduates, about 657,000, and 4% of all graduate students, about 107,000, were veterans or military service members. About two-fifths of those military undergraduates and one-fifth graduate students used GI Bill benefits (Radford & Weko, 2011). Some reports estimate that between 2009 and 2013, the number of veterans using the Post- 9/11 benefits more than doubled to 12,000 in Oregon and 25,000 in Washington. Thus in 2013, more than 35,000 veterans

in Oregon and Washington alone were using the GI Bill to attend colleges and trade schools (Wilson, 2015). In their 2011 review of two nationally representative studies of postsecondary students from 2007 to 2008, Radford and Weko also wanted to compare student veterans to their non-military colleagues. They found that the majority of military undergraduates and graduate students were male and were more likely to be married, dissimilar to their nonmilitary peers. More frequently than nonmilitary students, student veterans studied at private nonprofit 4-year institutions, pursued bachelor's degrees, took a distance education course, and studied computer and information sciences. Radford and Weko (2011) also found that the amount of financial aid received by student veteran undergraduates (including GI Bill benefits) tended to exceed or was not markedly different from those of non-military undergraduates. Finally, they found that military graduate students tended to wait longer to enter graduate school after completing their undergraduate degree, were enrolled in master's degree programs, attended part time, and took a distance education course more frequently when compared to their nonmilitary peers. According to the 2015 Veteran Economic Opportunity Report developed by the U.S. Department of Veterans Affairs, of those veterans utilizing their GI Bill education benefits, 35.1% pursue associate degrees, 34.6% pursue certificates, and 9% pursue graduate degrees. The most common area of study was Liberal Arts and Sciences, General Studies, and Humanities (31%). This report noted that these student veterans are completing degree programs 48% of the time, a rate similar to nonmilitary students (49%). Further, women veterans utilizing the benefits had a 10% higher completion

rate compared to male veterans, and a 5% higher completion rate compared to nonmilitary female peers. Student veterans take, on average, 2.3 years longer to complete their certificates and 1.8 to 2 years longer for degrees when compared to traditional students in the general population cohort. When analyzing potential differences in completion between military branches, little variation was observed with 40 to 50% graduation rates, with the exception of Air Force (65%), between 2002 and 2013. Of the veterans eligible for educational benefits, 8% transfer those benefits to family members, although those that personally utilize their benefits enroll in full-time programs six times more than in part-time programs. Student veterans under the age of 25 constitute 58% of those receiving Post- 9/11 GI Bill benefits, and those under the age of 30 have a 7% higher completion rate than nonmilitary students in the same age bracket (2015 Veteran Economic Opportunity Report, 2015).

Student Veterans' Mental Health

Symptomatology. When examining the historical influence of war and combat exposure on the mental health of those who served, we can conclude there has never been a time where veterans were not negatively impacted to some degree by the trauma of war. When we combine this acknowledgement with the current-day benefits available to service members, questions are raised as to the impact of the Iraq and Afghanistan wars on veterans as they return home and begin the journey of reintegration into civilian life, particularly in seeking higher education. Over 1.6 million American men and women have served or are currently serving in the conflicts

in Iraq, Afghanistan, or surrounding areas in support of OEF/OIF. Multiple studies have reported a high prevalence of emerging mental health disorders ranging from 18.5% to 42.7% in OEF and OIF soldiers and veterans (Seal, Maguen, Cohen, Gima, Metzler, Ren, Bertenthal, Marmar, 2010). Rudd, Goulding, and Bryan (2011) utilized a national survey to explore the psychological symptoms, symptoms severity, and suicide risk of OEF and OIF student veterans. The current conflicts reflect new and severe challenges additional to those expected of warfare. OEF and OIF reflect more than 10 years of combat across two different war zones, and the U.S. Department of Defense investigated other factors that are likely contributing to the escalating rates of PTSD, depression, substance abuse, and suicidality among veterans. Increases in operational demands, repeated deployments, insufficient time between deployments, reduced resilience among active-duty soldiers, and deficient support and effectiveness from military leadership were named as common attributors (U.S. DoD, 2010). Using multiple instruments to assess for a broad range of psychological symptoms, it was found that out of 628 student veterans almost 35% experienced "severe anxiety," 24% experienced "severe depression," and close to 46% endorsed significant symptoms of PTSD (Rudd, Goulding, and Bryan, 2011).

Suicidality. Another frightening aspect of the growing mental health concerns for student veterans is the increasing rate of suicidality, particularly when compared to their non-military peers. The Center for Collegiate Mental Health (CCMH, 2010) compared students seeking counseling services to the general student population, and

found that 3% seeking treatment reported non-suicidal self-injurious behavior, compared to 2% of the general student population, and 6% of the clinical population "seriously" considering suicide, compared to 2% of their nonclinical peers. In 2011, the American College Health Association produced data showing 6% of the general student population reported "seriously considering suicide" and 1.3% endorsing a suicide attempt. To further demonstrate both the constantly rising rate among student veterans, and marked elevation compared to the general student population, Rudd, Goulding, and Bryan's 2011 study showed that 46% of their student veteran sample indicated suicidal ideation at some point in the past. Furthermore, 20% of those student veterans reported suicidal ideation with a plan, 10.4% reported their suicidal thoughts were occurring "often" or "very often," and a concerning 3.8% reported that a suicide attempt was "likely" or "very likely." Finally, 7.7% indicated they had attempted suicide in the past. Rudd, Goulding, and Bryan (2011) further attempted to understand the relationship between PTSD and suicide risk within their sample. They found 82% of individuals who admitted to a past suicide attempt also reported significant PTSD symptoms; 60% of those with a suicide attempt also qualified for severe depression.

Although it is evident both student veterans and the general student population experience mental health difficulties, student veterans' difficulties may be compounded by not only their experience in the military, but also perceptions of isolation within an academic context and difficulty connecting with peers.

College Programs for Student Veterans

Utilization of services. The transitional challenges faced by student veterans combined with the weight of mental health difficulties likely has a profound impact on their academic performance. Fortunately, colleges and universities are most typically equipped with mental health services available for all students. However, problems arise when students experience barriers to seeking and obtaining these services. Hoge et al. (2004), found prevalent barriers to mental health care utilization by OIF and OEF veterans in the VA and private sector to include being seen as weak (65%), difficulty getting off work for treatment (55%), and the belief that it would harm their career (50%). Research has shown similar findings apply to student veterans, as perceived barriers limit the usefulness and success of on-campus counseling and disability services. A survey including 275 schools in 10 states found the five most common responses as to why students did not utilize on-campus mental health services were fear of disclosure (24%), lack of knowledge about the services (19%), fear of being stigmatized (19%), lack of specific supports, staff, or community referrals (16%), and not identifying as having a disability or not wanting help (12%) (Collins and Mowbray, 2005).

Changes within higher-level education institutions. McBain, L., Young, K., Cook, B., Snead, K. (2012) conducted a follow-up survey to a 2009 report that provided the first national review of programs services, and policies offered by higher education initiations specific to the needs of student veterans and military personnel. The investigators surveyed 690 public and private colleges and universities across the

U.S., and found both areas of success and areas for continued improvement. McBain, Young, Cook, and Snead (2012) reported that compared to 57% in 2009, 62% of institutions currently have programs and services intended to specifically aid student veterans and service members. They noted that institutions appear to acknowledge the importance of helping military personnel with long-term strategic academic plans, as 70% meet this need. Many institutions attempt to decrease the financial burden on military personnel by offering discounts and scholarships for veteran and military students; additionally, 83% of institutions with services for student veterans and service members allow college credit for military training, 87% provide VA education benefits counseling, and 82% of all institutions implement policies for tuition refunds in the event of military activations and deployments. Not surprisingly, however, the researchers found that institutions greatly vary in how they structure and implements services for student military personnel. In terms of mental health treatment, 84% of institutions with services for this population provide counseling for students with PTSD, however much fewer institutions have such services in place for individuals with physical disabilities. Only 55% have practices in place to aid with physical disabilities, and 35% have staff trained to assist with brain injuries. The most common difficulties noted by institutions for this population are finances, retention rates, and social acculturation. To address the social difficulties, the rate of special campus social or cultural events for military personnel increased from 35 percent in 2009 to 66 percent in 2012, and 47 percent report having designated lounges or gathering places for student active duty or veteran students. Another great improvement noted from

2009 to 2012 was a large increase in veteran/military student organizations at not-for-profit four-year schools, jumping from 7 to 52 percent. Additionally, support groups for veterans with disabilities, for family members, and for dependents of deceased veterans have all grown slightly within the last three years.

Although awareness is clearly growing, and institutions are showing investment in improving the college experience for student veterans and military personnel, there are still many areas for improvement. Transitioning into college life is difficult for anyone, but especially for those who did not attend immediately following high school. Essential academic skills, such as organization, time-management, and study habits can be difficult to refine after an extended absence from an academic environment. McBain, Young, Cook, and Snead (2012) found that only 37% of postsecondary institutions with military-focused services provide assistance specific to this transition, and 47% provide training opportunities for faculty to be better equipped at helping these students. For students whose academic career was interrupted for military purposes, only 28% of institutions have implemented an expedited reenrollment process. Overall, a significant concern across all institutions is obtaining funding to develop military-specific policies and procedures, and then implementing plans to meet the complex needs of this population. Faculty and staff awareness, training, and competence to handle these needs remains a top priority for postsecondary institutions.

Statement of Purpose

The purpose of this study is to examine transitional difficulties faced by female student veterans as they reintegrate into civilian and collegiate life. Specifically, this study examines military experiences, including combat exposure, current academic experiences, perceived social and academic support, and current psychological adjustment including suicidal ideation. It is intended that this research will add to the current knowledge base of the unique transitional difficulties experienced by student veterans, and that this information will be used to help better understand the distinctive needs of student veterans, inform treatment, and influence programs to improve retention rate programs at universities. This research also serves to examine potential risk factors for the development of mental health difficulties in student veterans, with the goal of contributing a framework by which we can better understand, prevent, and treat psychological distress in student veterans.

Hypotheses

Based on the findings from the literature, the following hypotheses are proposed:

- 1. There will be a significant positive correlation between PTSD Checklist-Military Version (PCL-M) and Suicidal Behaviors Questionnaire-Revised scores. This hypothesis will be tested using a Pearson Correlation.
- 2. There will be a significant positive correlation between Combat Exposure (CES) scores and SBQ-R scores. This hypothesis will be tested using a Pearson Correlation.
- 3. There will be a significant difference between type of disability and SBQ-R scores. This hypothesis will be tested using a one-way ANOVA.
- 4. There will be a significant difference between marital status and SBQ-R scores. This hypothesis will be tested using a one-way ANOVA.
- 5. The CES scores and length of deployment will individually predict PCL-M scores. This hypothesis will be tested using a multiple regression.
- 6. The CES scores and length of deployment will individually predict SBQ-R scores. This hypothesis will be tested using a multiple regression.
- 7. PCL-M and SBQ-R scores will individually predict grade-point average (GPA). This hypothesis will be tested using a multiple regression.
- 8. Perceived academic support and perceived social support will individually predict GPA. This hypothesis will be tested using a multiple regression.
- 9. CES scores and branch of service will individually predict PCL-M scores. This hypothesis will be tested using a multiple regression.

Method

Participants

Participants were comprised of current or past students at various local universities who are also United States military veterans. Participants were at least 18-

years-old, and represented a variety of ethnic backgrounds, religions, years in school, and majors. The sample included a total of 66 participants. (A priori testing indicates an n of 128).

Instruments/Measures

Three objective measures used in the survey included The PTSD Checklist-Military Version (PCL-M), Combat Exposure Scale (CES), and the Suicidal Behaviors Questionnaire- Revised (SBQ-R). Research supports the validity and reliability of all three measures. These assessments were included within the survey along with questions utilized to obtain demographic data. The PCL-M assessed for military-related psychological distress, the SBQ-R for suicidality, and the CES was used to assess severity of combat exposure.

The current study's survey also included 6 types of information gathered via self-report: demographic data, perception of academic and social support, academic success measured by Grade Point Average (GPA), and responses to the PCL-M, CES, and SBQ-R. All measures used and survey questions are included in the appendices.

Design/Plan of Analysis

The current study is exploratory. Pearson correlations were used to compare the relationship between posttraumatic stress and suicidality, and between combat exposure and suicidality. Additionally, one-way analysis of variance (ANOVA) tests were utilized to examine differences between type of disability and suicidality, and the

differences between marital status and suicidality. Multiple regressions were used to identify whether combat exposure and length of deployment could individually predict posttraumatic stress and suicidality. Multiple regressions were used to determine whether posttraumatic stress and suicidality could individually predict GPAs, and also if perceived academic and perceived social support could individually predict GPAs. Finally, a multiple regression was used to determine if combat exposure and branch of service could individually predict posttraumatic stress.

Procedure

Approval from the Florida Institute of Technology Institutional Review Board was obtained before data was collected. Participants were recruited from listservs, social media, and various department contacts at multiple local universities including, but not limited to, Florida Institute of Technology, Eastern Florida State College, and Kaiser University. Participants were asked to voluntarily participate in the anonymous survey. Data was coded and analyzed using SPSS.

Results

Descriptive Frequencies

The descriptive frequencies and statistics of the sample demographics are displayed in Table 1. A total 66 female United States Military veterans who were either currently or previously a student following their service completed the survey in its entirety. Ages ranged from 18 to 61 or older, with 51.7% between the ages 31 to

45. A majority of the sample identified as White/Caucasian (63.6%), 15.2% as African American/Black, 7.6% Hispanic, 4.5% as Asian/Pacific Islander, 1.5% as Middle Eastern, and 7.6% as "other." Half of the sample was represented by married individuals (50.0%), 24.2% by single individuals, 15.2% stated they were divorced, 6.1% in a relationship, and 4.5% separated. Of the participants, 39.4% indicated they had no children, 27.3% had 1 child, 15.2% had 2, 10.6% had 3, and 7.6% reported having 4 or more children. A large majority of the participants (84.8%) reported they were currently enrolled in school, 10.6% already graduated, 3.0% were taking a leave of absence, and 1.5% reported they had dropped out. A small proportion of the sample stated they were in the first year of school (9.1%), 10.6% in their second, 13.6% in their third, 12.1% in their forth or more, and 54.5% felt none of these classifications matched their current academic class standing. Most of the participants were attending school full-time (74.2%) and 25.8% stated they attended school part-time. Those pursuing a Bachelor's degree were represented by 45.5% of the sample, 40.9% were pursuing a Graduate degree, 12.1% pursuing an Associate's degree, and 1.5% seeking a High School Diploma/GED. When asked to report their grade point average (GPA), 47.0% reported a GPA of 3.6 or higher, 21.2% had a GPA between 3.1-3.5, 15.2% between 2.5-3.0, 1.5% between 1.5-2.4, however 15.2% did not report their GPA. More than half of the student veterans (62.1%) indicated they were not involved in any veteran organization(s) on or off campus, while 37.9% stated they were. In terms of having a service-connected disability, 54.5% stated they did not have one, while 45.5% indicated they did. Of the 45.5% that reported having a disability, 4.5% stated it was a mental disability, 18.2% indicated a physical disability, and 22.7% indicated having both. The participants were asked if they felt supported by their academic institution as a student veteran, and the results were as follows: 40.9% agreed, 37.9% strongly agreed, 12.1% neither agreed or disagreed, 6.1% disagreed, and 3.0% strongly disagreed. The participants were also asked if they felt supported by their friends and family and the results were as follows: 59.1% strongly agreed, 27.3% agreed, 9.1% neither agreed nor disagreed, 3.0% disagreed, and 1.5% strongly disagreed. When asked if they were satisfied with their decision to pursue higher education following their service, 72.7% strongly agreed, 22.7% agreed, 3.0% neither agreed nor disagreed, and 1.5% strongly disagreed. A majority of the sample (71.2%) indicated they had not received any counseling or therapy as a student veteran, while 27.3% indicated they had.

The participants also answered questions in regard to their military service. The Army was represented by 45.5% of the sample, Air Force by 30.3%, Navy by 12.1%, Marine Coprs 10.6%, and the Coast Guard by 1.5%. A large majority, 84.8%, indicated they were enlisted military members, and 15.2% were officers. More than half of the participants (59.1%) reported 4-8 years of service, 15.2% 0-3 years, 12.1% 9-14 years, 4.5% 15-20 years, and 9.1% with 20 or more years of service. Of the participants, 60.6% reported they had been deployed and 39.4% had not been deployed. Of those that had been deployed, 21.2% indicated they were deployed once, 19.7% twice, 12.1% three times, and 7.6% had been deployed four or more times. The length of deployments ranged from less than six months (16.7%), six to twelve months

(27.3%), and longer than 12 months (16.7%). Posttraumatic stress (PTS), as measured by the PCL-M, ranged from low PTS (63.6%), moderate PTS (6.1%), and high PTS (30.3%).

Hypothesis One

For the purpose of this study, it was hypothesized that posttraumatic stress and suicidality would be positively correlated. The relationship between posttraumatic stress (as measured by the PCL-M) and suicidality (as measured by the SBQ-R) was investigated using Pearson correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a strong, positive correlation between the two variables, r = .57, n = 66, p < .01, with high levels of posttraumatic stress (M = 33.56, SD = 18.26) associated with higher levels of suicidality (M = 5.98, SD = 2.68).

Hypothesis Two

For the purpose of this study, it was hypothesized that there would be a significant positive correlation between Combat Exposure scores (as measured by the CES) and SBQ-R scores. The relationship between suicidality and combat exposure (M = 5.23, SD = 6.82) was investigated using Pearson correlation coefficient. The correlation was not significant between the two variables, r = .16, n = 40, p < .01.

Hypothesis Three

This study hypothesized there would be a significant difference between type of disability, as it relates to suicidality. A one-way between-groups analysis of variance was conducted to explore the impact of type of disability on suicidality, as measured by the SBQ-R. Participants were divided into four groups according to type of disability (none, physical, mental, or both). There was a statistically significant difference at the p < .05 level in suicidality for the four disability groups: F(3, 62) = 5.8, p < .001. The effect size, calculated using eta squared, was large at 0.22. Post-hoc comparisons using Tukey HSD test indicated that the mean score for having no disability (M = 5.08, SD = 2.02) was significantly different from having a mental disability (M = 10.00, SD = 4.58), and from having both a mental and physical disability (M = 7.27, SD = 2.81). There were no other significant differences between the four groups.

Hypothesis Four

A one-way between-groups analysis of variance was also conducted to explore the impact of marital status (divided into five groups: single, married, divorced, separated, and in a relationship), and suicidality. There was a statistically significant difference at the p < .05 level in suicidality for the marital status groups: F(4, 61) = 4.1, p < .005. The effect size, calculated using eta squared, was large at 0.21. Tukey HSD test indicated that the mean score for married individuals (M = 5.09, SD = 1.83)

was significantly different from that of divorced individuals (M = 8.60, SD = 3.34). There were no other significant differences between the five groups.

Hypothesis Five

For the purpose of this study, it was hypothesized that Combat Exposure scores and length of deployment would individually predict posttraumatic stress (as measured by the PCL-M). The hypothesis was not supported. A multiple regression analysis was used to test this relationship, and neither Combat Exposure nor length of deployment (M = 2.00, SD = .75) were found to be significant predictors of posttraumatic stress (M = 32.98, SD = 17.10). The overall model was not significant [$R^2 = .073$, F(2, 37) = 1.45, p < .001].

Hypothesis Six

This study hypothesized that Combat Exposure scores and length of deployment would individually predict suicidality, as measured by the SBQ-R (M = 6.10, SD = 2.38). A multiple regression analysis was calculated to analyze the relationship between these variables, however the overall model was not significant [$R^2 = .046$, F(2, 37) = .902, p < .001]. Therefore, this hypothesis is not supported.

Hypothesis Seven

This study hypothesized that posttraumatic stress and suicidality would individually predict GPAs (M = 3.51, SD = .449). A multiple regression analysis was

used to test the relationship between PCL-M scores, SBQ-R scores, and GPAs. The overall model was not significant, and therefore this hypothesis is not supported [$R^2 = .011$, F(2, 54) = .292, p < .001].

Hypothesis Eight

For the purpose of this study, it was hypothesized that perceived academic support (M = 1.89, SD = .939) and perceived support from friends and family (M = 1.61, SD = .881) would individually predict GPAs. A multiple regression analysis was used to test this hypothesis, and the overall model was not significant [$R^2 = .069$, F(2, 54) = 2.01, p < .001]. This hypothesis is not supported.

Hypothesis Nine

This study hypothesized that combat exposure and branch of service (M = 2.08, SD = 1.12) would individually predict posttraumatic stress. This hypothesis is not supported. A multiple regression analysis was used to test this hypothesis [$R^2 = .079$, F(2, 37) = 1.59, p < .001]. The overall model was not significant.

Discussion

The present study investigated difficulties faced by female student veterans as they transitioned from military to collegiate life. In addition to collecting demographic data, this research analyzed the relationship between combat exposure, posttraumatic stress, suicidality, perceived academic and social support, and GPAs. This study aimed

to contribute to the limited research and literature on the female student veteran population, as well as inform treatment to improve treatment outcomes and overall academic success. Both significant and insignificant findings will serve to inform future research and student veterans programs at post-secondary institutions. The following includes a review and discussion of the results, limitations of the present study, and areas for future research.

As hypothesized, posttraumatic stress was found to have a strong positive correlation with suicidality, meaning that as posttraumatic stress scores increased so did suicidality scores. Additionally, it was hypothesized that combat exposure would also positively correlate with suicidality, however, the relationship between these variables was not significant. This suggests that for female veterans, posttraumatic stress is more associated with suicidality, irrelevant to level of combat exposure. Therefore, the conclusion can be made that other factors aside from combat exposure (e.g. broader military experiences, personality factors, demographic variables, etc.) likely influence the development of posttraumatic stress. In fact, this study found that having either a mental disability or having both a mental and physical disability significantly differed from having no disability in regard to suicidality. This suggests that military-related injury, physical or mental, has a significant impact on suicidality for female student veterans. Marital status was also hypothesized to differ in terms of suicidality. A significant difference was found only between married and divorced female student veterans, with divorced females endorsing higher levels of suicidality. This indicates that being married or divorced has some impact on mental health for

this population, however, causation cannot be concluded and many other mediating factors (personality factors and socioeconomic status for example) should be considered and investigated.

This study also aimed to investigate if certain variables, such as combat exposure and length of deployment, could individually predict mental health difficulties. Neither combat exposure nor length of deployment was found to significantly predict posttraumatic stress or suicidality for female student veterans. It was also hypothesized that posttraumatic stress and suicidality would individually predict academic success, as measured by GPAs. However, these mental health factors were not found to significantly predict GPAs. Furthermore, it was suspected that perceived academic support and perceived social support would individually predict GPAs, but again these factors were not shown to significantly predict academic success. Finally, combat exposure and branch of service were hypothesized to individually predict posttraumatic stress, however, this analysis also yielded insignificant findings. While this study did not find significance in regard to certain variables and their predictive ability, further research into other variables (such as personality factors, socioeconomic status, martial satisfaction, etc.) is valuable, as such data in very limited in the literature.

There are some limitations to this research. While using a survey including self-report measures is simple, cost-effective, and easy to administer, it is possible that inaccurate self-reporting occurred. For example, the participant was asked to report

their GPA and if they were unable to accurately recall this data, they may simply guess or exaggerate their response. This could be attributed to recall bias, or social desirability leading respondents to select answers that portray them in the best light. In addition, participants were asked to report whether they experience psychological distress as the result of a military experience. This presented the possibility for denial or unwillingness to discuss material that may potentially elicit emotional discomfort. However, it was hoped that the confidential nature of the survey will mediate this possibility.

In order to gain participants, it was necessary to limit the time needed to complete the survey. It was assumed that more individuals are likely to participate if the survey is not too lengthy or time consuming. Therefore, brief assessment measures were chosen, and the breadth and depth of symptom assessment is somewhat limited. For the purpose of this study, psychological distress focused on posttraumatic stress responses and suicidal ideation. While other symptoms such as depression and anxiety may be subsumed into these categories, they were not individually measured. Furthermore, academic success is measured simply using self-reported current grade point average. As this is a snapshot of a student's academic experience, it may be worthwhile for future research to include a deeper examination of student academic evaluations. This may include assessing the variability, progress, or decline as time progresses. Finally, it is important to consider the relatively small sample size of 66 female student veterans included in this study as a contributing factor to insignificant findings.

Overall, future research in the area of transitional difficulties faced by student veterans of both genders is needed. In future studies, assessments that gather more detailed information on mental health difficulties may aid in understanding of specific struggles and therefore better inform treatment. Additionally, it would be beneficial to assess for personality factors, as that information could potentially help parse out causational relationships between military experiences and mental health difficulties. Broader information on academic experience and success would aid in improving post-secondary programs specifically for student veterans. Finally, in addition to combat exposure and traumatic military experiences, such as military sexual trauma, assessment of traumatic experiences outside of the military could also led valuable information in the development of posttraumatic stress. Any and all future research, regardless of significant or otherwise results, will positively contribute to our currently limited understanding of the unique challenged faced by this important population.

References

- American College Health Association. (2011). 2010 National college health assessment. Washington, DC: American Collehe Health Association.
- Bagalman, E. (2013). Mental Disorders Among OEF/OIF Veterans Using VA

 Health Care: Facts and Figures. *Congressional Research Service*. Retrieved from http://fas.org/sgp/crs/misc/R41921.pdf
- Center for Collegiate Mental Health. (2010). 2012 Annual report (Publication no. STA 11-000). University Park, PA: Penn State University.
- Collins, M. E., & Mowbray, C. T. (2005). Higher Education and Psychiatric

 Disabilities: National Survey of Campus Disability Services. American Journal
 of Orthopsychiatry, 75 (2), 304-315.
- Foner, E., & Garraty, J. (Eds.). (1991). *The Reader's companion to American history*. Boston, MA: Houghton Mifflin Harcourt Publishing Company.
- Jones, J. (2013). A brief history of PTSD: The evolution of our understanding.

 Retrieved 2016, from https://www.military1.com/army/article/405058-a-brief-history-of-ptsd-the-evolution-of-our-understanding
- Hirst, K. (2015). The Irritable Heart Effects of Trauma in Civil War Veterans.

 Retrieved 2016, from

 http://psychology.about.com/od/ptsd/a/irritableheart.htm
- Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. New England Journal of Medicine, 351(1), 13-22.

- Hoge, C., Lesikar, S., Guevara, R., Lange, J., Brundage, J., Engel, C., Messer, S.,
 Orman, D. (2002). Mental Disorders Among U.S. Military Personnel in the
 1990s: Association With High Levels of Health Care Utilization and Early
 Military Attrition. *American Journal of Psychiatry AJP*, 159(9), 1576-1583.
- McBain, L., Young, K., Cook, B., Snead, K. (2012). From soldier to student part two: assessing campus programs for veterans and service members. *American Council on Education*. Washington, DC.
- Office of Public Affairs. (2014). Retrieved January 8, 2016, from http://www.va.gov/opa/issues/post 911 gibill.asp
- Picker, JD. (2011). The Post-9/11 G.I. Bill: A Catalyst to Change Service

 Voluntary Education Programs. *National Defense University Norfolk VA Joint Advanced Warfighting School*.
- Pizarro, J., Silver, R., & Prause, J. (2006). Physical and Mental Health Costs of

 Traumatic War Experiences Among Civil War Veterans. *Arch Gen Psychiatry Archives of General Psychiatry*, 63, 193-193.
- Pols, H., & Oak, S. (2007). WAR and Military Mental Health: The US Psychiatric Response in the 20th century. *American Journal of Public Health*, 97(12), 2132-2142.
- Radford, A., Weko, T. (2011). Military Service Members and Veterans: A Profile of Those Enrolled in Undergraduate and Graduate Education in 2007-08. Stats in Brief. NCES 2011-163. *ERIC Institution of Education Sciences*.

- Rudd, M., Goulding, J., & Bryan, C. (2011). Student veterans: A national survey exploring psychological symptoms and suicide risk. *Professional Psychology:* Research and Practice, 42(5), 354-360.
- Seal, K.H., Bertenthan, D., Miner, C.R., Saunak, S., Marmar, C. 2007. Bringing the war back home: Mental health disorders among 103,788 US Veterans returning from Iraq and Afghanistan seen at Department of Veterans Affairs facilities. *Archives of Internal Medicine* 167: 476-482.
- Seal, K., Maguen, S., Cohen, B., Gima, K., Metzler, T., Ren, L., Bertenthal, D., Marmar, C. (2010). VA mental health services utilization in Iraq and Afghanistan veterans in the first year of receiving new mental health diagnoses. *Journal of Traumatic Stress J. Traum. Stress*, 23(1), 5-16.
- United States Department of Defense, Task Force on the Prevention of Suicide by

 Members of the Armed Forces. (2010). The challenge and the promise:

 Strengthening the force, preventing suicide and saving lives: Final report of
 the Department of Defense Task Force on the Prevention of Suicide By

 Members of the Armed Forces. Washington DC: Department of Defense.
- Veteran economic opportunity report. (2015) (1st ed.). Retrieved from http://www.benefits.va.gov/benefits/docs/VeteranEconomicOpportunityReport 2015.PDF
- Wilson, C. (n.d.). Vets Use Of GI Bill Surges. Retrieved January 8, 2016, from http://www.opb.org/news/article/vets-use-of-gi-bill-surges/

Appendix A

Survey Instructions and Consent Page

You are invited to participate in our survey regarding Experiences of Student Veterans. In order to be eligible for this study, you must be at least 18 years of age, a military veteran, and currently enrolled in school. In this survey, you will be asked to answer questions about your military and school experience. It will take approximately 10-15 minutes to complete the questionnaire.

Your participation in this study is completely voluntary. There are no foreseeable risks associated with this research, however, if you feel uncomfortable answering any questions, you may withdraw from the survey at any point. If the nature of this study results in any increased discomfort, and you feel the need for emotional support, please contact the Veterans Crisis Line: **1-800-273-8255.** They provide 24/7 confidential support.

Your responses will be strictly confidential and anonymous. If you participate, data from this research will be reported with no identifying information. If you have any questions at any time, you may contact the researchers at vetteam@fit.edu.

Thank you for your time and support. Please begin the survey by selecting "I agree" and clicking on the Continue button below.

O I agree

Appendix B

Demographic Variables

- 1. Gender
 - a. Male
 - b. Female
- 2. Age
 - a. Enter in
- 3. Marital Status
 - a. Single
 - b. Married
 - c. Separated
 - d. Divorced
 - e. In a Relationship
- 4. Children
 - a. 0
 - b. 1
 - c. 2
 - d. 3
 - e. 4+
- 5. Race/Ethnicity
 - a. White/Caucasian
 - b. Black/African American
 - c. Hispanic
 - d. Asian/Pacific Islander
 - e. Middle Eastern
 - f. Other
- 6. Branch of Service
 - a. Army
 - b. Air Force
 - c. Marine Corps
 - d. Navy
 - e. Coast Guard
- 7. Rank in Military
 - a. Officer
 - b. Enlisted
- 8. Years of Military Service
 - a. 0-3 years
 - b. 4-8 years

- c. 9-14 years
- d. 15-20 years
- e. 20+ years
- 9. Deployment
 - a. Yes
 - b. No
- 10. Number of Deployments
 - a.
 - b. 2
 - c. 3
 - d. 4+
- 11. Longest Deployment
 - a. Less than 6 months
 - b. 6-12 months
 - c. Over 12 months
- 12. Operation(s) supported
 - a. OIF
 - b. OEF
 - c. OND
 - d. OIF & OEF
 - e. OEF/OIF & OND
- 13. Highest level of completed education
 - a. High School diploma/GED
 - b. Technical Degree/Certificate
 - c. Associate's Degree
 - d. Bachelor's Degree
 - e. Graduate Degree
- 14. Current Class Standing
 - a. Freshmen (1st year)
 - b. Sophomore (2nd year)
 - c. Junior (3rd year)
 - d. Senior (4th or more year)
- 15. Part-time or full-time student
 - a. Select one
- 16. Grade Point Average (GPA)
 - a. 4.0 3.6
 - b. 3.5 3.1
 - c. 3.0 2.6
 - d. 2.5 2.0
 - e. 1.9 0.0

- 17. Involvement in any on- or off-campus veteran organization(s)
 - a. Yes
 - b. No
- 18. Service Connected Disability
 - a. Yes
 - b. No
- 19. If answered Yes to question 19, select type of disability
 - a. Physical
 - b. Mental
 - c. Both
- 20. Received mental health counseling or therapy since becoming a student veteran
 - a. Yes
 - b. No

Perception of Support

- 1. As a student veteran, I feel supported by my academic institution
 - a. Strongly Agree
 - b. Agree
 - c. Neither Agree or Disagree
 - d. Disagree
 - e. Strongly Disagree
- 2. As a student veteran, I feel supported by my friends and family
 - a. Strongly Agree
 - b. Agree
 - c. Neither Agree or Disagree
 - d. Disagree
 - e. Strongly Disagree

Satisfaction

- 1. I am satisfied with my decision to pursue higher education following my military experience
 - a. Strongly Agree
 - b. Agree
 - c. Neither Agree or Disagree
 - d. Disagree
 - e. Strongly Disagree

Appendix C

Combat Exposure Scale (CES) and Scoring Sheet

Please circle the number next to the answer that best describes your you experience

1) Did you ever go on combat patrols or have other dangerous duty?

1. No

| 2. 1-3x | |
|---|-------|
| 3. 4-12x | |
| 4. 13-50x | |
| 5. 51+times | |
| | |
| 2) Were you ever under enemy fire? | |
| 1. Never | |
| 2. <1 month | |
| 3. 1-3 months | |
| 4. 4-6 months | |
| 5. 7 months or more | |
| | |
| 3) Were you ever surrounded by the enemy? | |
| 1. No | |
| 2. 1-2x | |
| 3. 3-12x | |
| 4. 13-25x | |
| 5. 26+ times | |
| 4) What managed as of the soldiers in your poit years billed (VIA) wounds | مه اه |
| 4) What percentage of the soldiers in your unit were killed (KIA), wounder missing in action (MIA)? | u or |
| missing in action (MIA)? 1. None | |
| | |
| 2. 1-25% | |
| 3. 26-50% | |
| 4. 51-75% | |
| 5. 76% or more | |
| 5) How often did you fire rounds at the enemy? | |
| 1. Never | |
| 2. 1-2x | |
| 3. 3-12x | |
| 4. 13-50x | |

- 5. 51 or more
- 6) How often did you see someone hit by incoming or outing rounds?
 - 1. Never
 - 2. 1-2x
 - 3. 3-12x
 - 4. 13-50x
 - 5. 51 or more
- 7) How often were you in danger of being injured or killed (i.e., being pinned down, overrun, ambushed, near miss, etc.)?
 - 1. Never
 - 2. 1-2x
 - 3. 3-12x
 - 4. 13-50x
 - 5. 51 or more

COMBAT EXPOSURE SCALE SCORING SHEET

Answers (raw scores) on the Combat Exposure Scale can range from 1 to 5. However, the Scoring of the items requires the conversions described below:

- (1) SUBTRACT 1 FROM THE RAW SCORE AND MULTIPLY BY 2 (e.g., a raw score of 4 becomes a converted score of 6).
- (2) SUBTRACT 1 FROM THE RAW SCORE (e.g., a raw score of 4 becomes a converted score of 3).
- (3) *IF THE RAW SCORE IS BETWEEN 1 AND 4:
 SUBTRACT 1 FROM THE RAW SCORE AND MULTIPLY BY 2
 (e.g., a raw score of 4 becomes a converted score of 6).
 *IF THE RAW SCORE IS 5:

SUBTRACT 2 FROM THE RAW SCORE AND MULTIPLY BY 2 (e.g., a raw score of 5 becomes a converted score of 6).

- (4) *IF THE RAW SCORE IS BETWEEN 1 AND 4:
 SUBTRACT 1 FROM THE RAW SCORE
 (e.g., a raw score of 4 becomes a converted score of 3).
 * IF THE RAW SCORE IS 5:
 SUBTRACT 2 FROM THE RAW SCORE
 (e.g., a raw score of 5 becomes a converted score of 3).
- (5) SUBTRACT 1 FROM THE RAW SCORE (e.g., a raw score of 4 becomes a converted score of 3).
- (6) SUBTRACT 1 FROM THE RAW SOCRE AND MULTIPLY BY 2 (e.g., a raw score of 4 becomes a converted score of 6).
- (7) SUBTRACT 1 FROM THE RAW SCORE AND MULTIPLY BY 2 (e.g., a raw score of 4 becomes a converted score of 6).

| ADD ALL CONVERTI | ED SCORES TO OBT | AIN A TOTAL SCORE: |
|------------------|------------------|--------------------|
| TOTAL: | | |
| | | |

The total exposure to combat score can be categorized according to the following scale:

- 1 = 0-8 light
- 2 = 9-16 light moderate
- 3 = 17-24 moderate
- 4 = 25-32 moderate heavy
- 5 = 33-41 heavy

Appendix D The PTSD Checklist, Military Version (PCL-M)

PCL-M

by

INSTRUCTIONS: Below is a list of problems and complaints that veterans sometimes have in response to stressful military experiences. Please read each one carefully, then circle one of the numbers to the right to indicate how much you have been bothered that problem in the past month.

| | Not at all | A little bit | Moderately | Quite a bit | Extremely |
|--|--------------|--------------|------------|-------------|-----------|
| 1. Repeated, disturbing <i>memories</i> , <i>thoughts</i> , or <i>images</i> of a stressful military experience? | 1 | 2 | 3 | 4 | 5 |
| 2. Repeated, disturbing <i>dreams</i> of a stressful military experience? | 1 | 2 | 3 | 4 | 5 |
| 3. Suddenly <i>acting</i> or <i>feeling</i> as if a stressful military experience <i>were happening again</i> (as if you were reliving it)? | 1 | 2 | 3 | 4 | 5 |
| 4. Feeling <i>very upset</i> when <i>something reminded you</i> of a stressful military experience? | 1 | 2 | 3 | 4 | 5 |
| 5. Having <i>physical reactions</i> (e.g. heart pounding, trouble breathin sweating) when <i>something reminded ye</i> of a stressful military experience? | | 2 | 3 | 4 | 5 |
| 6. Avoiding <i>thinking about</i> or talking about a stressful military experience or avoiding <i>having feelings</i> | 1 related to | 2 it? | 3 | 4 | 5 |
| 7. Avoiding <i>activities</i> or <i>situations</i> because they <i>reminded you</i> of a stress military experience? | 1 ful | 2 | 3 | 4 | 5 |
| 8. Trouble <i>remembering important</i> parts of a stressful military experience | ? | 2 | 3 | 4 | 5 |
| 9. Loss of interest in activities | 1 | 2 | 3 | 4 | 5 |

| that you used to enjoy? | | | | | |
|---|---|---|---|---|---|
| 10. Feeling <i>distant</i> or <i>cut</i> off from other people? | 1 | 2 | 3 | 4 | 5 |
| 11. Feeling <i>emotionally numb</i> or being unable to have loving feelings for those close to you? | 1 | 2 | 3 | 4 | 5 |
| 12. Feeling as if your <i>future</i> will somehow be <i>cut short</i> ? | 1 | 2 | 3 | 4 | 5 |
| 13. Trouble falling or staying asleep | 1 | 2 | 3 | 4 | 5 |
| 14. Feeling <i>irritable</i> or having <i>angry outbursts</i> ? | 1 | 2 | 3 | 4 | 5 |
| 15. Having difficulty concentrating? | 1 | 2 | 3 | 4 | 5 |
| 16. Being "super-alert" or watchful or on guard? | 1 | 2 | 3 | 4 | 5 |
| 17. Feeling <i>jumpy</i> or easily startled? | 1 | 2 | 3 | 4 | 5 |

Algorithm

Total = 17-33 Low PTS

Total = 34-43 Moderate PTS

Total = 44-85 High PTS

Appendix E

Suicidal Behaviors Questionnaire- Revised (SBQ-R)

Instructions: Please check the number beside the statement or phrase that best applies to you.

1. Have you ever thought about or attempted to kill yourself? (check one only)

- 1. Never
- 2. It was just a brief passing thought
- 3a. I have had a plan at least once to kill myself but did not try to do it
- 3b. I have had a plan at least once to kill myself and really wanted to die
- 4a. I have attempted to kill myself, but did not want to die
- 4.b I have attempted to kill myself, and really hoped to die

2. How often have you thought about killing yourself in the past year? (check only one)

- 1. Never
- 2. Rarely (1 time)
- 3. Sometimes (2 times)
- 4. Often (3-4 times)
- 5. Very Often (5 or more times)

3. Have you ever told someone that you were going to commit suicide, or that you might do it? (check only one)

- 1. No
- 2a. Yes, at one time, but did not really want to die
- 2b. Yes, at one time, and really wanted to die
- 3a. Yes, more than once, but did not want to do it
- 3b. Yes, more than once, and really wanted to do it

4. How likely is it that you will attempt suicide someday? (check only one)

- 0. Never
- 1. No chance at all
- 2. Rather unlikely
- 3. Unlikely
- 4. Likely
- 5. Rather likely
- 6. Very likely

SBQ-R Scoring

Item 1:

Selected response 1 = 1 point Selected response 2 = 2 points

Selected response 3a or 3b = 3 points

Selected response 4a or 4b = 4 points

Item 2:

Selected Never = 1 point

Selected Rarely (1 time) = 2 points

Selected Sometimes (2 times) = 3 points

Selected Often (3-4 times) = 4 points

Selected Very Often (5 or more times) = 5 points

Item 3:

Selected response 1 = 1 point

Selected response 2a or 2b = 2 points

Selected response 3a or 3b = 3 points

Item 4:

Selected Never = 0 point

Selected No chance at all = 1 points

Selected Rather Unlikely = 2 points

Selected Unlikely = 3 points

Selected Likely = 4 points

Selected Rather Likely = 5 points

Selected Very Likely = 6 points

$\underline{\text{Total}} = \text{Sum of points}$

Adult General Population Cutoff score ≥ 7

Appendix FSurvey Thank You Page

Thank you for participating in this survey. If the nature of this study resulted in any increased discomfort, and you feel the need for emotional support, please contact the Veterans Crisis Line at **1-800-273-8255**. They provide 24/7 confidential support.

Table 1.

Descriptive Frequencies of Demographic Variables

| Variable | Frequency | Percent |
|---------------------------|-----------|---------|
| Age | | |
| 18-30 | 23 | 34.8% |
| 31-45 | 31 | 47.0% |
| 46-59 | 5 | 7.6% |
| 61+ | 1 | 1.5% |
| Race | | |
| African American/Black | 10 | 15.2% |
| Asian/Pacific Islander | 3 | 4.5% |
| Caucasian/White | 42 | 63.6% |
| Hispanic or Latino/Latina | 5 | 7.6% |
| Middle Eastern | 1 | 1.5% |
| Other | 5 | 7.6% |
| Marital Status | | |
| Single | 16 | 24.2% |
| Married | 33 | 50.0% |
| Separated | 3 | 4.5% |
| Divorced | 10 | 15.2% |
| In a Relationship | 4 | 6.1% |
| Number of Children | | |
| 0 | 26 | 29.4% |
| 1 | 18 | 27.3 |
| 2 | 10 | 15.2% |
| 3 | 7 | 10.6% |
| 4+ | 5 | 7.6% |
| Branch of Service | | |
| Army | 30 | 45.5% |
| Air Force | 20 | 30.3% |
| Coast Guard | 1 | 1.5% |
| Marine Corps | 7 | 10.6% |
| Navy | 8 | 12.1% |
| Rank | | |
| Officer | 10 | 15.2% |
| Enlisted | 56 | 84.4% |
| Years of Service | | |
| 0-3 years | 10 | 15.2% |
| 4-8 years | 39 | 59.1% |
| 9-14 years | 8 | 12.1% |
| 15-20 years | 3 | 4.5% |
| 20+ years | 6 | 9.1% |

Continued on following pages

| Variable | Frequency | Percent |
|-----------------------------------|-----------|---------|
| Deployed | 1 V | |
| Yes | 40 | 60.6% |
| No | 26 | 39.4% |
| Times Deployed | | |
| 0 | 26 | 39.4% |
| Once | 14 | 21.2% |
| Twice | 13 | 19.7% |
| Three Times | 8 | 12.1% |
| Four or More Times | 5 | 7.6% |
| Longest Deployment | | |
| 0 | 26 | 39.4% |
| Less Than 6 Months | 11 | 16.7% |
| 6-12 Months | 18 | 27.3% |
| Over 12 Months | 11 | 16.7% |
| Current Academic Standing | | |
| In School | 56 | 84.8% |
| Graduated | 7 | 10.6% |
| Dropped Out | 1 | 1.5% |
| Leave of Absence | 2 | 3.0% |
| Degree Pursuing | | |
| High School Diploma/GED | 1 | 1.5% |
| Associate's Degree | 8 | 12.1% |
| Bachelor's Degree | 30 | 45.5% |
| Graduate Degree | 27 | 40.9% |
| Class Standing | | |
| Freshmen (1 st year) | 6 | 9.1% |
| Sophomore (2 nd year) | 7 | 10.6% |
| Junior (3 rd year) | 9 | 13.6% |
| Senior (4 th year) | 8 | 12.1% |
| Other | 36 | 54.5% |
| Full/Part Time | | |
| Full-time Student | 49 | 74.2% |
| Part-time Student | 17 | 25.8% |
| Involvement with Vet Organization | | |
| Yes | 25 | 37.9% |
| No | 41 | 62.1% |
| Service Connected Disability | | |
| Yes | 30 | 45.5% |
| No | 36 | 54.5% |

| GPA | | |
|--|----|-------|
| 1.5-2.4 | 1 | 1.5% |
| 2.5-3.0 | 10 | 15.2% |
| 3.1-3.5 | 14 | 21.2% |
| 3.6+ | 31 | 47.0% |
| Type of Disability | | |
| None | 36 | 54.5% |
| Physical | 12 | 18.2% |
| Mental | 3 | 4.5% |
| Both | 15 | 22.7% |
| Counseling or Therapy as a Student Vet | | |
| Yes | 18 | 27.3% |
| No | 47 | 71.2% |
| No Response | 1 | 1.5% |
| I Feel Supported by my Academic | | |
| Institution | | |
| Strongly Agree | 25 | 37.9% |
| Agree | 27 | 40.9% |
| Neither Agree nor Disagree | 8 | 12.1% |
| Disagree | 4 | 6.1% |
| Strongly Disagree | 2 | 3.0% |
| I Feel Supported by my Family and | | |
| Friends | | |
| Strongly Agree | 39 | 59.1% |
| Agree | 18 | 27.3% |
| Neither Agree nor Disagree | 6 | 9.1% |
| Disagree | 2 | 3.0% |
| Strongly Disagree | 1 | 1.5% |
| I'm Satisfied with my Decision to Pursue | | |
| Higher Education | | |
| Strongly Agree | 48 | 72.7% |
| Agree | 15 | 22.7% |
| Neither Agree nor Disagree | 2 | 3.0% |
| Strongly Disagree | 1 | 1.5% |
| PCL-M Total Score (17-85) | | |
| Low PTS (17-33) | 42 | 63.6% |
| Moderate PTS (34-43) | 4 | 6.1% |
| High PTS (44-85) | 20 | 30.3% |

| CES Total Scores (0-41) | | |
|-------------------------|----|-------|
| Light (0-8) | 29 | 43.9% |
| Light-Moderate (9-16) | 8 | 12.1% |
| Moderate (17-24) | 1 | 1.5% |
| Moderate-Heavy (25-32) | 2 | 3.0% |
| Heavy (33-41) | 0 | 0.0% |

Table 2. Descriptive Statistics and Correlations for PCL-M and SBQ-R scores

| Variable | N | Mean | SD |
|----------|----|-------|-------|
| PCL-M | 66 | 33.56 | 18.26 |
| SBQ-R | 66 | 5.98 | 2.68 |

| Measure | 1 | 2 |
|----------|-------|-------|
| 1. PCL-M | - | .57** |
| 2. SBQ-R | .57** | - |

^{**} Correlation is significant at the 0.01n level (2-tailed).

Table 3. Descriptive Statistics and Correlations for CES and SBQ-R scores

| Variable | N | Mean | SD |
|----------|----|------|------|
| CES | 66 | 5.23 | 6.82 |
| SBQ-R | 66 | 5.98 | 2.68 |

| Measure | 1 | 2 |
|----------|-----|-----|
| 1. CES | - | .16 |
| 2. SBQ-R | .16 | - |

^{**} Correlation is significant at the 0.01n level (2-tailed).

Table 4. *ANOVA for type of disability and suicidality*

| | Sum of Squares | df | Mean Square | F | Sig. |
|-------------------|-------------------|----|-------------|------|------|
| Between Groups | 102.39 | 3 | 34.13 | 5.80 | .001 |
| Within Groups | 364.60 | 62 | 5.88 | | |
| Total | 466.99 | 65 | | | |

Table 5. *ANOVA for marital status and SBQ-R scores*

| | Sum of Squares | df | Mean Square | F | Sig. |
|-------------------|-------------------|----|-------------|------|------|
| Between Groups | 99.19 | 4 | 24.80 | 4.11 | .005 |
| Within Groups | 367.79 | 61 | 6.03 | | |
| Total | 466.99 | 65 | | | |

Table 6. *Model summary related to CES scores, length of deployment, and PCL-M scores*

| | _ | | Adjusted R | Std. Error of |
|-------|-------|----------|------------|---------------|
| Model | R | R Square | Square | the Estimate |
| 1 | .270ª | .073 | .023 | 17.790 |

Table 7.

Regression Coefficients (CES scores and Length of Deployment) Predicting PCL-M Scores

| Variable | В | SE | β | t | p | |
|------------|-------|------|-----|------|------|--|
| CES | .78 | .50 | .30 | 1.57 | .126 | |
| Length of | -1.28 | 4.51 | 05 | 28 | .779 | |
| Deployment | | | | | | |
| | | | | | | |

Table 8. *Model summary related to CES scores, length of deployment, and SBQ-R scores*

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------|----------|----------------------|----------------------------|
| 1 | .216ª | .046 | 005 | 2.400 |

Table 9.
Regression Coefficients (CES scores and Length of Deployment) Predicting SBQ-R Scores

| Variable | B | SE | β | t | p | |
|------------|-----|-----|-----|------|------|--|
| CES | .09 | .07 | .25 | 1.33 | .191 | |
| Length of | 53 | .61 | 17 | 87 | .390 | |
| Deployment | | | | | | |
| | | | | | | |

Table 10.

Model summary related to PCL-M scores, SBQ-R scores, and GPA

| M - 1-1 | D | D. C | Adjusted R | Std. Error of |
|---------|-------|----------|------------|---------------|
| Model | R | R Square | Square | the Estimate |
| 1 | .103ª | .011 | 026 | .455 |

Table 11.

Regression Coefficients (PCL-M and SBQ-R scores) Predicting GPA

| Variable | B | SE | β | t | p | |
|----------|-----|-----|-----|-----|------|--|
| PCL-M | .00 | .00 | .00 | .03 | .980 | |
| SBQ-R | 02 | .03 | 11 | 67 | .508 | |
| | | | | | | |

Table 12. Model summary related to perceived academic support, perceived social support, and GPA

| Model | P | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------|----------|----------------------|----------------------------|
| 1 | .263ª | .069 | .035 | .441 |
| 1 | .203 | .009 | .033 | .771 |
| | | | | |

Table 13.

Regression Coefficients (perceived academic and social support) Predicting GPA

| Variable | В | SE | β | t | p | |
|-------------------------------|----|-----|----|-------|------|--|
| Perceived Academic Support | 06 | .07 | 14 | 96 | .343 | |
| Perceived Social Support | 09 | .07 | 18 | -1.30 | .199 | |

Table 14.

Model summary related to combat exposure, branch of service, and PCL-M scores

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------|----------|----------------------|----------------------------|
| 1 | .282ª | .079 | .030 | 17.73 |

Table 15. Regression Coefficients (CES and branch of service) Predicting PCL-M scores

| Variable CES | .63 | SE .43 | β .24 | <i>t</i> | <i>p</i> .155 |
|----------------------|-------|-----------|----------|----------|---------------|
| Branch of Service | -1.55 | 2.65 | 10 | 59 | .562 |