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Behavioral Health Issues Facing Returning Combat Veterans

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Behavioral Health Issues Facing Returning Combat Veterans

by

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Presented to the Graduate and Research Committee

of Lehigh University

in Candidacy for the Degree of

Doctor of Philosophy

in

Counseling Psychology

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Abstract

The U.S. military enters an unprecedented age as repeated and prolonged exposure to combat becomes the norm for veterans who deploy to Iraq and Afghanistan. The effects of war have become more prevalent in contemporary research as increased rates of Post Traumatic Stress Disorder, Traumatic Brain Injuries and other mental health conditions are reported by combat veterans. The current study expanded upon a prior investigation (Tormey, 2008); a two-phase modified Delphi approach that queried a panel of experts to identify the most salient issues facing returning combat veterans. The purpose of the current study was to expand on the previous study by incorporating a third and fourth phase in order to investigate and forecast challenges facing combat veterans in five years. Future challenges were identified by the Combined Participant (CP) group through a Chi-Square Goodness of Fit Test. In addition, three demographic categories were investigated for differences utilizing a Chi-Square Independence Test: 1) Those who Sought (or did not seek) Mental Health Care (SMHC), 2) the Level of Combat Exposure (CE) experienced by the veteran and 3) the Number of Deployments (ND) served by the veteran. Differences were found in the SMHC group and the CE group (two differences only) and no significant differences were found in the ND group. An Analysis of Covariance (ANCOVA) found differences in those who sought mental health care versus those who did not seek mental health care with regard to the level of combat exposure, controlling for number of deployments. However, no differences were found in those who sought mental health care versus those who did not with regard to the number of deployments, controlling for the level of combat exposure.

Chapter I

Introduction

The effect of war upon military personnel has been a topic of interest for many years. As a result of current conflicts in Iraq and Afghanistan, however, interest among researchers, mental health communities, the U.S. Department of Veterans Affairs (VA) and the Department of Defense (DOD) has increased sharply.

Military personnel have often faced difficult challenges upon returning from combat zones. Today's military members serve in an unprecedented era of repeated combat exposure. Such lengthy deployments occur on a rotational basis with very brief rest periods in between. Other challenges faced by combat veterans include (but are not limited to): Increased rates of Post Traumatic Stress Disorders (PTSD), Traumatic Brain Injuries (TBIs), increased suicide rates, increased substance abuse, family and community reintegration and employment issues, long-term health effects, and barriers to seeking mental health care assistance. The long-term emotional and psychological effects of serving in a combat environment remain unclear.

The concept of psychological effects of combat or traumatic events can be traced back to the sixth century B.C. (Holmes, 1985 as cited in Volpe, 1996). What is known as PTSD today, [(term and diagnosis originated in 1980 in the Diagnostic and Statistical manual of Mental Disorders – Third edition (DSM-III; American Psychiatric Association, 1980; Scott, 1990)], has been referred to as various names in the past such as, shell shock or battle fatigue (Navy and Marine Public Health Center, 2012).

Despite obvious similarities, the nature and consequences of combat exposure in the present decade are different from past decades in significant ways.

Contemporary research and the investigation of the effects of war; specifically combat related mental health issues (such as PTSD) began to emerge with Vietnam veterans (Schlenger, et al., 1992, as cited in Friedman, 2004), which according to Schlenger, et.al., (1992) started with the National Vietnam Veterans' Adjustment study (Schlenger, et al., 1992, as cited in Friedman, 2004). The study explored the pervasiveness of PTSD among Vietnam veterans between 10 and 20 years following their tours in Vietnam. Findings from this study indicated PTSD was present in 15 percent of male veterans and 8 percent of female veterans. Additionally, a lifetime prevalence of PTSD was found in 30 percent of male veterans and in 25 percent of female veterans (Schlenger, et al., 1992 as cited in Friedman, 2004).

A later study (Wolfe, Erickson, Sharkansky, King, & King, 1999, as cited in Friedman, 2004) involving Gulf War veterans indicated that PTSD rates significantly increased from the time they were originally assessed (upon their return from the Gulf) to the two year follow up assessment. The PTSD rates among male veterans increased from 3 to 7 percent and even higher rates among female veterans increased from 8 to 16 percent (Wolfe, et al., 1999). It is important to note that Wolfe, et al., (1999), also found differences in the level of PTSD symptoms between active duty members and the National Guard and Reserves. Higher levels of PTSD symptoms were found among the National Guard and Reserve personnel. Overall findings of the study seem to suggest that current rates of PTSD for recently returning veterans will likely increase over time as symptoms continue to emerge several months or even years after the initial trauma exposures. Previous data from military veterans may help to form a baseline for

comparisons regarding current rates of PTSD among Iraq and Afghanistan veterans in future studies.

Similar and Unique Issues faced by Combat Veterans

Combat veterans of past and present wars, then, face both similar and unique challenges. On one hand, similar challenges (post combat) present regardless of which war a veteran served in---e.g., psychological issues (may include PTSD, anxiety, or depression), increased risk of suicide, increased risk of substance abuse and a myriad of other issues that go beyond the scope of this study. On the other hand, each war presents unique stressors for veterans that are associated with distinctive combat environments and socio political climates (e.g., level of support for the troops on the home front). To illustrate, the reception and treatment of a WWII veteran returning home from the war was markedly different than that of a returning Vietnam veteran. History indicates that the WWII veteran returned as a “hero”, and the Vietnam veteran returned from the very unpopular war dealing with negative, sometimes offensive receptions. According to Wilson, 1989, context is the key not only to the individual’s response to, and understanding of their traumatic experience, but also to the overall recovery process. Therefore, when considering the issues surrounding treatment and recovery, it is imperative to understand the context surrounding the individual experiences of veterans as well as the wars in which they served.

A second example of a unique exposure from a particular war is the high number of Traumatic Brain Injuries (TBIs) occurring due to the countless number of Improvised Explosive Devices (IED’s) in Iraq. Although brain injuries are not uncommon in combat environments, according to earlier research (Okie, 2005 as cited in Warden, 2006), what

appears to be different in the present war in Iraq, is that military members are surviving at higher rates than in the past. The difference in survivability may be the result of new developments in technology; i.e., protective equipment and gear utilized or worn in combat zones (Okie, 2005 as cited in Warden, 2006). What may be challenging for these veterans is dealing with the types of wounds that would have been fatal in the past.

Past history and lessons learned from previous wars may hold the key in the search for better care for our present day military personnel. Hyams, Wignall, & Roswell (1996), compared war-related psychological and physiological symptoms reported during the U.S. Civil War, WWI, WWII, Korean Conflict, Vietnam War, and the Persian Gulf War.

Hyams, Wignall, & Roswell (1996) state:

War syndromes have not been consistently defined or identified by a pathognomonic physical sign or laboratory abnormality. As a result, the diagnosis of a physiologic or psychological illness in individual patients has been imprecise and has depended on self-reported symptoms and the impression of the examining physician. Symptoms may be general in nature (such as fatigue, headache, sleep disturbance, impaired concentration and memory), however, sufficient evidence exists which demonstrates specific combat exposures are linked to the health problems of combat veterans (p. 401).

In terms of psychological conditions, the study also reported high rates of acute combat stress reaction and post traumatic stress disorder among veterans of each given war (Hyams, et al., 1996), which is consistent with the present day war in Iraq and Afghanistan.

In order to benefit from lessons learned from past wars and to understand the unique challenges of today's veterans, it is essential to direct research in areas that explore gaps that exist in combat recovery assistance. Since the beginning of the current war (on two fronts), there has been a marked increase in the demand for mental health care for affected military members and their families and will likely continue to be in the near future. Barriers, such as, access to resources and stigma to seeking mental healthcare, create major difficulties for military members (Hoge, Castro, Messer, McGurk, Cotting, & Koffman, 2004), which may decrease opportunities for early interventions. Results can mean long-term health issues for military members, their families, and the mental health care system overall. Therefore, it is critical to investigate which issues will become more or less salient in the future.

Purpose of the Study

In order to gain a better understanding and to address the most relevant and immediate issues facing combat veterans, the proposed study built upon a prior investigation (Tormey, 2008), a two-phase modified Delphi approach. Following an extensive literature review, a panel of experts was selected based on experience working directly with or in development of programs/processes for combat veterans. The panel then identified the most salient issues facing returning combat veterans today.

The purpose of this study was to expand on the previous research by conducting another two phase modified Delphi approach, this time, polling veterans regarding the issues that will become worse of a problem, less of a problem, or remain a problem in five years; a forecasting of challenges. While this study stands on its own, it was designed to build upon the previous study (Tormey, 2008), therefore, we will refer to the

previous study as phase I and II and the present study as phase III and IV for reference only. Future challenges were investigated utilizing a Chi-Square Goodness of Fit Test for the Combined Participant Group (CP), and three specific demographic categories were also investigated for differences utilizing a Chi-Square Independence Test: Those who Sought (or did not seek) Mental Health Care (SMHC), the Level of Combat Exposure (CE) experienced by the veteran and the Number of Deployments (ND) during the veteran's time in service. An Analysis of Covariance (ANCOVA) was utilized to explore differences in those who sought mental health care versus those who did not seek mental health care in terms of the level of combat exposure, controlling for number of deployments; and in those who sought mental health care versus those who did not in terms of number of deployments served, controlling for the level of combat exposure.

Research Questions

Research Question 1: What issues/challenges facing combat veterans will become more or less salient in five years?

Research Question 2: What demographic differences will be identified in the following categories?

- 1) Veterans who sought mental health care
- 2) Veterans with different levels of combat exposure
- 3) Number of Deployments veteran completed

Research Question 3: Do those who sought mental health care differ from those who did not seek mental health care in terms of the number of deployments, controlling for the level of combat exposure?

Research Question 4: Do those who sought mental health care differ from those who did not seek mental health care in terms of the level of combat exposure, controlling for the number of deployments?

Chapter II Literature Review

Recent events surrounding the Iraq war highlight many salient adjustment issues facing military personnel who have been exposed to combat. Combat exposure affects the veterans and their families. It also underscores the gaps that exist regarding comprehensive treatment and recovery for affected military members. Currently, the Department of Defense and Veterans Affairs (VA) are researching new and effective ways to educate, create awareness and treat veterans with combat-related challenges. However, there is a journey ahead in developing programs and resources that ensure access to timely and effective treatments for all of those affected (to include family members) by combat exposure.

Today's military personnel experience war in a way that is distinct from their predecessors. Many military personnel deploy to Iraq and Afghanistan on a rotational basis, experience extended deployments and repeated combat exposure which may increase the risk of trauma related issues. Adler, Huffman, Bliese & Castro (2005) investigated the impact of deployment duration and initial deployment (first deployment experience) on psychological health by administering a survey regarding symptoms of depression and posttraumatic stress to military members. They found initial deployments and those longer in duration were associated with increased distress scores (increased distress in relation to deployment duration was found in male soldiers only).

Health and Mental Health Consequences of Combat Exposure

Post Traumatic Stress Disorder (PTSD)

Specific challenges associated with combat have become apparent to the military and the mental health community, such as increased rates of Post Traumatic Stress Disorder (PTSD), and other mental health disorders reported by returning Iraq and Afghanistan veterans. Hoge, et.al. (2004) compared results of a survey administered to U.S. Army soldiers and Marines pre or post deployment to Iraq and Afghanistan. They reported higher levels of PTSD, depression, and anxiety following deployments to both Iraq (15.6 to 17.1 percent), and Afghanistan (11 percent), noting a significantly greater increase in those who were deployed to Iraq. It is also important to note that the level of combat exposure was significantly higher for those deployed to Iraq than Afghanistan. Hoge, et al. (2004) also found a significant correlation between PTSD and the number of *Firefights* encountered by combat veterans.

Similarly, Hoge, Terhakopian, Castro, Messer, & Engel (2007), found that injuries were linked with higher rates of PTSD. The study indicated that among those who reported being injured at least once, 31.8 percent met the criteria for PTSD in comparison to 13.6 percent of participants who were never injured (Hoge, Terhakopian, Castro, Messer, & Engel, 2007).

Traumatic Brain Injuries (TBIs)

Psychological problems are not the only issue of recovery for combat veterans; physical injuries are a major concern as well. For example, Traumatic Brain Injuries (TBI's) have become known as the "signature injury" of the Iraq war. As was suggested in previous studies (Okie, 2005, as cited in Warden, 2006), combat veterans are surviving

IED explosions at higher rates than in the past (due to technological advances). However, they often do not realize there is a problem because the injury may not be visible or easily detectable initially (Carroll, 2007). According to Warden (2006), injuries that penetrate the brain are easier to detect, however, they are less common than closed brain injuries. One of the problems with closed brain injuries is that they are more difficult to identify, which could delay treatment and the recovery process. The problem continues to grow with the number of Improvised Explosive Devices (IED's) utilized every day in Iraq and Afghanistan. Atkinson (2007) reported that currently, twenty-five thousand IED attacks occurred in Iraq and account for nearly two thirds of the American combat deaths in theatre so far.

With the high rate of TBI's occurring in the current war, new challenges emerge, such as, how to best detect and identify closed brain injuries that are unique to today's combat environment and the long-term effects of such injuries. Current research underscores the significance and urgency of understanding the epidemiology of TBI's and early treatment. A recent study indicated that soldiers who suffered mild TBI's while deployed to Iraq were also likely to develop PTSD (as well as other health problems) within an approximated time of 3 to 4 months following their deployment (Hoge, McGuirk, Thomas, Cox, Engel, & Castro, 2008). Furthermore, the authors concluded that "PTSD and depression are important mediators of the relationship between mild traumatic brain injury and physical health problems" (Hoge, et al., 2008, p. 453). This finding in relation to mild TBI's is significant because it emphasizes the importance of distinguishing between health problems caused by the TBI and those caused by the associated PTSD and depression (Bryant, 2008).

Neuro-Cognitive Changes Following Combat Exposure

Neurological functioning may also be effected by combat experiences. Vasterling, Proctor, Amoroso, Kane, Heeren, & White (2006) assessed neurological functioning of military personnel pre and post deployment to Iraq and compared the results with non-deployed military members. Deployed veterans were found to have significant neuro-cognitive changes (although described as mild and subtle for the population overall) in the post deployment phase. Additionally, a relationship was found between Iraq deployments (versus non-deployments) and “neuropsychological compromise on tasks of sustained attention, verbal learning and visual-spatial memory” (Vasterling et al., 2006, p. 519). Conversely, deployed veterans showed an improvement in tasks involving simple reaction times. Hotopf & Wessely (2006) argued that military personnel must adapt to and shift their mindset in order to survive combat environments which may account for improved reaction times. Combat personnel must have an acute awareness of their surroundings at all times and remain alert and on guard in order to survive. However, as important as the state of vigilance is to staying alive in a combat zone, it can quickly become dysfunctional (turning to hyper vigilance) when re-integrating into a peaceful environment. Such pervasive changes may then become difficult to reverse once returning home (Castro, Messer, Hoge, McGurk & Adler, 2005 as cited in Hotopf & Wessely, 2006). Hotopf & Wessely, (2006) described the heightened post-deployment vigilance as an aspect of “Battlemind” which identifies a host of psychological adaptations that combat veterans experience when deployed which may also become problematic upon returning home (Walter Reed Army Institute of Research, 2006, as cited in Hotopf & Wessely, 2006).

Future studies are needed to investigate the possible relationship between combat exposure and neurological changes and whether symptoms will persist.

Increased Rates of Suicide Following Combat Exposure

Many of the life threatening and pervasive issues veterans face as a result of this unprecedented war, may be a factor in the increased rates of suicide since the Iraq war began, especially for those serving in combat. In 2003, the military reported 22 suicides that occurred while military members were serving in Iraq. Of the 22 suicides, 19 were Army soldiers which represents a rate of 13.5 per 100, 000 (Nelson, 2004). This rate increased from the 10.5 to 11 per 100,000 that were reported by the Army in previous years (Nelson, 2004). Research indicates the rate of suicide cases among military members appears to be increasing with each passing year Nelson, (2004).

Hill, Johnson, & Barton (2006), examined the charts of 425 deployed soldiers who sought treatment for various mental health issues. A review of the soldier's records revealed that over the past month, approximately 30 percent had considered suicide and approximately 16 percent had homicidal thoughts with regard to someone other than the enemy. Additionally, the state of mental health for approximately 75 soldiers was found to be extremely serious and therefore, appropriate interventions were initiated at that time Hill, Johnson, & Barton (2006). The aforementioned studies demonstrate the struggle many veterans face as they continue to serve in combat zones and the aftermath of coming home and dealing with the changes in themselves and those around them.

Increased Rates of Substance Abuse

Substance abuse is an issue that is sometimes linked with combat stressors or even increased risk of suicide. Current research reveals increased rates of substance abuse

among military members may be linked to combat-related stressors (Zielbauer, 2007). Lessons learned from past wars tell us that substance abuse may sometimes be a form of self-medication, or relief for those suffering from PTSD, depression, or other trauma related disorders. Zielbauer (2007) reported that Dr. Thomas R. Kosten, a psychiatrist in the Houston Veterans Affairs Medical Center, indicated that he believed “significant alcohol problems were pervasive across the military” (Zielbauer, 2007, para. 9) and inferred that alcohol and drug use stems from the “stress of working in a war zone” (para. 9). Zielbauer (2007) suggested that the culture in the military is such that seeking mental health care for substance abuse, or in general, is not an acceptable practice. He further explained the perception is that doing so may have an impact on officer’s promotions, in particular.

Re-integration with Families, Friends, and Communities

The multitude of stressors associated with extended combat exposure may result in problematic re-integration with family, friends, and communities; exacerbating the military member’s personal challenges and impacting their much needed support network (Hutchinson & Banks-Williams, 2006). Although the focus on mental health and well being often refers to the military member, it is important to remember that while military members are dealing with the stressors (and dangers) of combat and separation from their families; family members are also deeply affected (Hutchinson & Banks-Williams, 2006). For the families of combat veterans who are dealing with post combat changes, such as, physical or psychological injuries, this can be difficult, emotional and challenging (Hutchinson & Banks-Williams, 2006). Veterans may return home feeling depressed, angry or even distant toward loved ones; such symptoms may lead to

confusion, misunderstandings and strained relationships for both the military member and their family (Hutchinson & Banks-Williams, 2006).

The affects of war on military families is an emerging topic in current literature. Researchers are beginning to examine the unique challenges and affects overall on military families and spouses/partners. For instance, a recent study (Manguno-Mire, et al., 2007) interviewed 89 female partners of male veterans in outpatient PTSD treatment programs. Psychological distress, depression and suicidal ideation of participants were found to be at very high levels. The findings of this study are critical as they demonstrate the impact of war on families and the need for treatment that extends beyond the military veteran to the family as well.

Other challenges for veterans re-integrating back into the community include occupational issues. Affected veterans may have difficulty either finding employment or remaining employed for any length of time, which may be due to combat-related PTSD or other mental health challenges resulting from their combat experiences (Ruzek, et al., 2004). In addition, some reports have emerged indicating veterans may experience unfair discrimination regarding employment opportunities.

Hawkins (2009) interviewed the director of the Veteran's Employment Assistance program at Lutheran Social Services of Southern California who stated:

These veterans are young, eager, and diligent but frustrated. I've talked to some employers who said they are fearful of hiring veterans who have served in Iraq and Afghanistan. There are misconceptions about veterans. Employers are fearful that they won't fit in. They think they will show signs of post traumatic stress disorder. (para. 20).

Bordieri & Drehmer (2006) found this to be the case with Vietnam veterans. The study investigated discrimination practices in the hiring of Vietnam veterans. Supervisors and mid-level managers were asked to review resumes and make recommendations for a particular job. Even with equal/comparable qualifications, when described as a Vietnam veteran (versus a non-Vietnam veteran), the applicants were rated significantly lower in terms of recommendations for employment (Bordieri & Drehmer, 2006).

Access to Mental Health Care During and After Deployment

Access to treatment for families of deployed military members may be a challenge in some cases. For example, Fairweather (2006), reported that family services (such as family/couples therapy) offered through Vet Centers have been reduced given increased demands on their resources. In addition, the author indicated if a veteran is not enrolled for care, access to resources becomes very limited for family members. Fairweather (2006) stressed the increasing need for family services and suggests that the VA, DOD, National Guard and Reserves consider taking steps to make resources available in the community.

Members of the National Guard and Reserves may also be at increased risk of PTSD, or other mental health issues. Friedman (2006) purports that National Guard and Reserve personnel are unique in that they experience repeated deployments just like full time active duty members but often live away from the base in which they are assigned. While active duty members are surrounded by and *live* the military culture, this too is different for National Guard and Reservists as they have less contact with the base, their unit and other military members (Friedman, 2006). Given these differences and the fact that Guard and Reserve personnel do not have the same access to resources as their

active duty counterparts (such as, mental health care, social support, and family services), stress levels from deployments may compound the stressors of combat in the National Guard and Reserve population (Friedman, 2006). Friedman also pointed out that there was a higher occurrence of PTSD and depression in National Guard and Reserve troops during the Persian Gulf War than in their active duty counterparts (Friedman, 2004; Friedman 2005 as cited in Friedman, 2006). Further research is needed to address what may be a population at higher risk of combat-related mental health issues.

Early Intervention for Returning Iraq Veterans

Early interventions for affected combat veterans may continue to be a challenge as stigma in seeking mental health care within the military culture has been a long standing issue. Seeking help for a psychological or mental disorder is often perceived as a sign of weakness among military personnel. Hoge, et al. (2004), conducted a study investigating duty in Iraq and Afghanistan, mental health issues and barriers to mental health care. Some of findings underscore issues with barriers in help seeking. For instance, only 38-45 percent of Iraq and Afghanistan veterans (Army and Marines) who met criteria for a mental disorder reported they would consider seeking help (Hoge, et. al., 2004). Furthermore, with regard to concerns about receiving mental health care, 65 percent reported they would be seen as weak and as many as 50 percent thought it would be harmful to their career (Hoge, et. al., 2004). Although stigma was found to be widespread among military members, those who had the highest level of symptoms were also the least likely to seek out mental health care (Hoge, et. al., 2004). Reducing stigma may help to increase the number of veterans seeking recovery assistance and facilitate early interventions.

The military has begun to address stigma associated with seeking mental health treatment. Policies, operational instructions, and procedures are being implemented to help normalize the need for mental health care. The Marine Corps, for example, is promoting the idea that asking for help is indicative of strength (which seems to apply to all the military services), emphasizing strength as beneficial not only to the individual but to the military member's unit as a whole (Gaskin, 2003). The Marine Corp also developed a pilot program called, Operational Stress Control and Readiness (OSCAR). The program was designed to normalize and address stress or psychological problems as they occur (particularly in a combat setting), therefore, mental health providers were deployed within the units (Kennedy & Zillmer, 2006).

Moving toward normalizing responses to combat and focusing on resilience and recovery may be key for affected veterans as was emphasized by Charles Figley (Levin, 2007). Levin (2007) reported that Charles Figley, Ph.D., a professor at Florida State University's College of Social Work and director of the university's Traumatology Institute and Psychosocial Stress Research Program (a Vietnam veteran) spoke at a conference on mental health needs of returning soldiers and their families:

Levin (2007) quoted Charles Figley:

We need to move from an obsession with PTSD to focus on combat stress, injury prevention, and management, calling wartime trauma *combat stress injury* would place it in the same light as other war wounds: preventable and manageable, if sometimes irreversible....we need a paradigm shift from psychopathology to resilience and recovery. (p. 2).

A new culture, then, is emerging as the military recognizes the importance of creating a safe environment wherein a military member may seek help without fear of retribution or damage to their career. Part of this culture change includes a psycho-education program disseminated to military members and health care professionals which was developed by the U.S. Army, otherwise known as, “Battlemind” (The Walter Reed Army Institute of Research. & Combat Study Team, 2007). Battlemind training has now evolved to what is known as, “Resilience Training.” Resilience training has been defined as training that “offers strength-based, positive psychology tools to aid soldiers, leaders and families in their ability to grow and thrive in the face of challenges and bounce back from adversity” (U.S. Army Medical Department, 2011, para. 1). One of the many messages in this training is to recognize when a soldier, or fellow soldier needs mental health care and that it takes strength to ask for help.

Programs such as *Battlemind* or *Resilience* training that promote awareness and education are steps in the right direction for the U.S. military. However, it may take some time for change as research indicates that stigma in seeking mental health care often results in military personnel not reporting symptoms, which may result in long term health issues.

National Mental Health Care Preparedness in Combat Recovery Assistance

Budget constraints and the growing number of veterans needing assistance have also influenced access to resources for military members and veterans. Glendinning (2007) reported the demand for VA services increased from approximately 3 million in 1995 to 5 million in 2006. Lewis (2008) reported that in 2003, approximately 153, 600 Vietnam veterans sought treatment for PTSD from the VA. For some, that was

approximately 30-40 years after returning from Vietnam and for others, a follow up to a diagnosis given years ago (Lewis, 2007). The number of Vietnam veterans seeking mental health assistance, along with veterans of other wars, continues to grow.

According to St. George (2006), the influx of Vietnam veterans coming forward to address PTSD after so many years may be due to the repeated images of the Iraq War through the media. Intense images of war and devastation may cause re-experiencing of veteran's combat-related traumas (St. George (2006).

Additionally, St. George (2006), indicated that the number of PTSD disability-compensation cases through the Department of Veterans Affairs reached approximately 260,000; almost twice the amount reported in 2000 (St. George, 2006).

Access to effective treatment and early interventions are critical issues for combat veterans as there may be long term health implications. In a recent study, Boscarino (2008) investigated the overall health of 4, 462 male Vietnam era veterans, 2,490 in-theatre Vietnam veterans, and 1, 972 who served in other locations during that period. The findings indicated that “morbidity associated with PTSD may be comparable to laboratory measures of disease pathology in common use” (Boscarino, 2008, p.100).

With few such studies conducted regarding veterans of past wars, it is difficult to predict what the future holds for Iraq/Afghanistan veterans. However, early indications are that PTSD has some influence over one's health and in some cases long-term health, which underscores how critical it is to ensure early treatment of PTSD and other psychological disorders associated with combat-related trauma.

Now more than ever, an increased awareness of the challenges specific to military members (and those who have served in combat zones), and the devastating effects it has

on them and their families have begun to emerge. In addition, combat-related challenges underscore a number of gaps that exist regarding comprehensive treatment and recovery. The United States is facing a major increase in demand of medical health care for affected military members and their families. Immediate and effective treatments must be developed and streamlined, and transition systems created lest our mental health care system become overloaded and unable to meet the exponentially increasing demand from returning combat veterans. In order to investigate and forecast the most current and relevant issues facing combat veterans, a follow-up to a previous investigation (Tormey, 2008) was conducted in order to determine the perspectives of combat veterans regarding what will become more or less salient (noting which will remain the same) in five years.

Chapter III

Method

Study Design

Both the present and previous study (Tormey, 2008) utilized a modified version of the Delphi method which was developed by the Rand Corporation during the 1950's. The method was designed to solicit opinions from a panel of experts regarding the probable future course of complex problems or new phenomenon (Dalkey & Helmer, 1963).

According to Linstone & Turoff (2002):

The Delphi usually undergoes four distinct phases. The first phase is characterized by exploration of the subject under discussion, wherein each individual contributes additional information he feels is pertinent to the issue. The second phase involves the process of reaching an understanding of how the group views the issue (i.e., where the members agree or disagree and what they mean by relative terms such as importance, desirability, or feasibility). If there is significant disagreement, then that disagreement is explored in the third phase to bring out the underlying reasons for the differences and possibly to evaluate them. The last phase, a final evaluation, occurs when all previously gathered information has been initially analyzed and the evaluations have been fed back for consideration (p. 5-6).

The previous study (Tormey, 2008) began with an extensive literature review. Following the review, a panel of experts was selected based on experience working directly with, or in the development of programs/processes for combat veterans. The

panel then took a survey to identify the most salient issues facing returning combat veterans.

The present study expanded on the previous research by conducting what we will refer to as a third and fourth phase, in order to investigate and forecast challenges facing combat veterans that will become worse or less of a problem (noting which will remain the same) in five years. Like the previous study (Tormey, 2008), a panel of experts was selected (combat veterans) and future challenges (and differences among demographics) were identified through a survey. An analysis was then conducted utilizing a Chi-Square Goodness of Fit Test, a Chi-Square Independence Test and an Analysis of Covariance (ANCOVA).

Procedures

Review of Previous Study (Tormey, 2008)

Phase I: According to Wiersma, & Jurs (2005), the first round of the Delphi may be omitted if the issues or questions relevant to the study are well defined and would be considered a modified Delphi approach. This was the case with the previous study (Tormey, 2008). Therefore, the first phase of the process was an extensive literature review in order to identify the most salient challenges facing combat veterans. The next step then was to develop the survey.

Survey: The compilation of information was structured into a survey of specific challenges military members with combat exposure face, gaps within the mental healthcare system, and obstacles that exist regarding recovery-seeking steps were identified. The survey included eleven main categories, with sub-categorical questions that were rank ordered by level of significance; the purpose being to formulate a general

consensus among the experts as to the most salient issues regarding combat-related issues and our national mental health care system's preparedness to deal with those issues.

Topics addressed in the survey included: stigma and barriers to mental health treatment for military members, deployment issues, family and community re-integration and support, combat-related PTSD or other related mental health problems, stress and combat-related deployments, combat-related Traumatic Brain Injury (TBI), combat-related suicide, combat deployments and Substance Abuse, mental health preparedness as a nation, long term medical challenges for veterans with combat-related trauma, Mental health care system (experience and training needed to treat veterans with combat-exposure).

The survey was designed for participants to rate issues as being most to least salient on a rank order structure. Lower numbers represented the most critical issues versus higher numbers which represented the midlevel or lowest level of significance among the topics indicated. For example, the topic ranked number 1 represented the most critical issue within that category and the issue ranked number 13 was the least significant among the issues indicated.

Phase II (Tormey, 2008): A total of twelve panel members were selected however, the data for two participants were incomplete and had to be omitted. The panel of experts was identified through an electronic search and on-site visits to local VA's and military bases. Military and civilian mental health personnel were selected based on the following criteria: (a) Authorship of relevant research regarding returning combat veterans (b) Current duties that include working directly with military members or veterans who have experienced combat-related trauma, and (c) Educators and trainers

who have developed combat trauma intervention programs. The panel of experts consolidated the most current knowledge and information regarding empirically validated treatments for military members and veterans who have experienced combat-related trauma. Given that participants did not meet in person, nor were they known to one another, the questionnaire and information packet was disseminated electronically, or delivered in person, therefore the results were either hand delivered, or e-mailed to the researcher once the study was completed

The data were analyzed using descriptive statistics. A review of the means and standard deviations for each category specified which topics or issues were considered the most salient among those represented in the study. The percentage of participants who rated each issue within a 2 or 3 point range, were also indicated in the table to demonstrate the patterns of agreement among the participants regarding various issues. Finally, the minimum and maximum range for each issue was indicated. Once the data were analyzed, the results were summarized and recommendations for future interventions were addressed (See the *Results* section for previous study results). The results were disseminated electronically to those who took the survey on-line, or hand delivered to participants who worked in the local area (VA clinic and hospital).

Current Study Procedure

Phase III (Initial Phase of Current Study)

Participants

A total of 102 panel members were recruited based on the following criteria: Active Duty status (deployment experience in a combat zone), Air National Guard/Reserve status (deployment experience in a combat zone), and Discharged/Separated/ Retired combat veterans. The participant age range was approximately 18-66 or over. The sources used for the participant population sample were as follows:

- National Guard/Reserve Units – Purpose was to survey veterans with a range of combat-related experiences and demographic differences
- Military installations with an active duty population - Purpose was to survey veterans with a wide range of combat-related experiences and demographic differences
- Veteran organizations with members of diverse demographics and experiences
 - Veterans of Foreign Wars: Purpose was to survey combat veterans
 - Purple Heart Association: Purpose was to survey combat veterans
 - American Legion: Survey any combat veterans that may be a member of this organization (combat veterans are not traditionally members of this organization, however, some combat veterans were members the American Legions that I encountered)
- Online social media sites with members of diverse demographics with military combat experience across the nation

- Electronic military and combat veteran groups
- Facebook groups for combat veterans

The Participant sources were selected in order to locate a broad range of active military and combat veterans of various age ranges, deployment and combat experiences. Demographic information surveyed: age, race, gender, war theatre, rank, branch of service, active duty status, volunteer/draft status, employment, military occupation, level of combat exposure, number of deployments, total number of months in combat zone, and use of mental health care facilities as a result from combat experiences.

Sampling Procedure: Approximately 102 combat veterans were recruited from various settings in order to achieve a range in age and experience. Resources for contact listings and permission were acquired from: Commanders or First Sergeants regarding National Guard/Reserve units and active duty personnel located at selected military bases; representatives (in leadership or administrative positions) from veteran's organizations such as, the Veterans of Foreign Wars (VFW), the Purple Heart Association, the American Legion (combat veterans who belonged to this organization); and On-line "Combat Veteran" Face book groups. The identified sources offered a number of veterans that spanned several war theatres and experiences. This is significant because many veterans from past wars such as, Vietnam are currently seeking mental health care after 40 plus years and are (like the present day Iraq veterans) dealing with some of the same challenges, barriers and processes. Face to face contact was made with most organizations involved in the study; the exception being the on-line Face book groups in which contact was made electronically. The benefit to utilizing an on-line source was that it allowed access to a very specific group of veterans across the country.

This strategy offered some responses from veterans who may otherwise have been unwilling to participate in such studies; it was time efficient, economical, and simplified the process of collecting data through an electronic automated system (Wright, 2005).

Instruments

Questionnaire: The questionnaire utilized in this study was developed following an extensive literature review which identified relevant issues regarding behavioral health issues of combat veterans; and combat-related challenges identified by a panel of experts in a previous study (Tormey, 2008). Other sources included updated research from the 2006 APA conference presentations, Veteran's Affairs, and the Walter Reed Army Medical Center.

Information from the above sources was compiled into a 46 question survey (in addition to demographic questions), identifying specific challenges combat veterans face, gaps within the mental healthcare system, and obstacles that exist regarding recovery-seeking steps, as identified. The questionnaire utilized a Behaviorally Anchored Likert Scale design (Campbell, Dunnette, Arvey, Hellervik, 1973). Specific levels of concern regarding relevant issues were distinguished by anchored points along the scale in order to improve the accuracy level among participants. The scale included ratings one through three with the following levels of concern: *In five years, the issue is likely to:* 1 = Become a worse problem, 2 = Remain a problem and 3 = Become less of a problem. For example, *Stigma as a role in seeking mental health assistance within the military* was identified as remaining a problem in five years by the Seeking Mental Health Care group.

Given the current study questionnaire is not a psychological assessment or instrument in a traditional sense, this study did not use traditional psychometric indices.

However, it does demonstrate content validity given that the mental health care raters suggested the survey issues in a previous study (Tormey, 2008).

Demographic Survey: The demographic survey included: age, race, gender, branch of service, war theatre veteran served in, rank, military status, volunteer/draft status, employment, military occupation, level of combat exposure, number of deployments, total number of months in combat zone, and use of mental health care facilities as a result from experiences. Several of the demographics had a huge variance or disparity in sample sizes which, if incorporated into the study as planned, would have rendered weak results (i.e., The number in each category; Gender: male (93) and female (9); Race: European origin/white (85) and all other race categories (5 or less in each category); Volunteer/draft status: volunteer (95) and draft (6); and Age: 56-65 (39) and all other age categories (17 participants or less in each category)). Therefore, due to the complexity and amount of data generated, the focus for this study was directed toward issues most closely believed to be related to mental health care, and a subset of 3 demographics were selected: Level of Combat Exposure, Number of Deployments, and Seeking Mental Health Care. Given that all of the demographics selected are equally important, future studies will be generated that are within the scope of the data generated.

Additional Participant Study Materials: In addition to the research questionnaire and demographic survey, participant packages included: a cover letter and consent forms (which explained confidentiality/anonymity issues, potential benefits and risks, and right to withdraw). In addition, the cover letter included a statement regarding the condition in which the participant may feel following the questionnaire, and resources given to communicate with a mental health professional immediately via a VA Hotline if

needed: 1-800-273-TALK. The VA hotline was contacted prior to the study in order to inform them of the situation ahead of time. Additionally, the instructions informed the participant that the survey would take approximately 15-20 minutes.

Access to materials: The survey packages were accessible through a hyperlink to survey monkey or hand delivered to participants without access to computers. The participants were asked to complete the package and submit their responses electronically if taken on-line. Paper and pencil questionnaires were returned via mail or personally collected by the researcher. A follow-up request was scheduled within two weeks of the initial contact in order to maximize participation.

Phase IV (Final Phase of the Current Study)

Phase IV included data collection and analysis, summary and discussion of the results, and recommendations were offered based on the issues identified as becoming worse of a problem in five years.

Data Analyses

The data were analyzed using both the Chi-Square Goodness of Fit Test to investigate issues identified by the Combined Participant group (CP) and determine whether the frequency counts are equally distributed. In addition, a Chi-Square Test of Independence was conducted to investigate demographic differences or associations among the 46 issues specified. An Analysis of Covariance (ANCOVA) was also utilized to explore differences in those who sought mental health care versus those who did not seek mental health care in terms of the level of combat exposure, controlling for number

of deployments; and in those who sought mental health care versus those who did not in terms of number of deployments, controlling for the level of combat exposure.

An on-line statistical data program called, “*Survey Monkey*” provided some additional automated (descriptive statistical data). The Survey Monkey process and procedures are located on www.surveymonkey.com. Results were presented in tables with selected categories identified earlier.

Ethical Considerations

The level of risk to each veteran who participated in this research study was considered moderate due to the possibility that the topics/issues addressed in the survey could possibly trigger an emotional response. Steps to minimize this risk were taken by making resources available to each participant. This was done by including VA Hotline information (to contact a counselor if needed after taking the survey) in the cover letter of each participant package (electronic version provided for those taking the survey on line) so that veterans would have the information prior to taking the survey. The participant data was kept confidential and was not correlated with any identifying information. It remained confidential during and upon completion of the study. Given the precautionary steps that were taken to minimize potential risks to the participants, the benefits of the knowledge gained in this area outweighed the risks involved in the participation of this study.

Limitations

Some limitations exist regarding the sample for this study. First, it is important to note that veterans with Traumatic Brain Injuries (TBIs) were not included in the study as

they may have required some assistance with the survey which would have compromised their confidentiality.

Secondly, Rosenbaum and Lidz (2007) suggested there may be limitations with on-line sampling. For example, the authors emphasized that on-line surveys are limited to populations that have access to computers and the internet, moderate computer skills and the ability to understand the survey/material independently.

Like any self-report measure, the data has the potential to be skewed. Self-selection bias is a consideration in this study given certain characteristics of individuals that volunteer to take an on-line survey versus those who may not (Stanton, 1998, Thompson et al., 2003, Wittmer et al., 1999, as cited in Wright, 2005). Limitations such as those mentioned above can also be problematic when utilizing mail out surveys. For example, there is no guarantee the survey was completed by the participant to whom it was mailed (Schmidt, 1997 as cited in Wright, 2005). In addition, there is no way to ensure that demographic data such as age, gender or education is accurate (Wright, 2005).

In order to minimize such issues, current study participants were selected from various sources. However, even though participants were solicited from various sources (i.e., Face book groups, military bases, National Guard/Reserve units, Veteran organizations), several study demographics yielded unequal sample sizes. Due to the disparity in the sample sizes and overwhelming amount of data, it became necessary to direct the focus of the study to the three demographics most closely related to mental health care. In addition, given that a large number of participants took the questionnaire on-line, and it was completely confidential (i.e. via Survey Monkey), geographic information about the participants was not available to indicate whether the sample was a

nationwide sample. While a sample size of 102 combat veterans was the goal for this particular study, a larger sample size may offer more insight.

Chapter IV

Results

Review of the Results (Phase II) from the Previous Study (Tormey, 2008)

The expert panel in the previous study (Tormey, 2008), identified challenges facing combat veterans by using a rank order structured questionnaire. The data were analyzed using descriptive statistics. A review of the means and standard deviations for each category specified which topics or issues were considered the most salient among those represented in the study.

The following were among the top rated challenges identified by the panel in the initial study:

- Stigma as a role in seeking mental health care within the military was the most critical issue concerning stigma and barriers to mental health treatment.
- Impact of repeated combat exposure on mental health and well-being was rated as a top priority with regard to deployments.
- Family separation through deployment was rated among the top most critical issues with regard to family and community re-integration and support.
- Cumulative mental/physical health problems in relation to repeated combat-related deployments was rated among the highest areas of concern.
- Impact of repeated combat exposure on stress level was rated among the top areas of concern regarding stress and combat-related deployments.
- Immediate care provided for members with Traumatic Brain Injuries (TBI) was rated one of the most critical issues regarding combat-related TBI.

- Increased suicide rate of military members was rated one of the top issues concerning combat-related suicide.
- The impact of repeated combat exposure and multiple deployments to combat zones on rate of increase of substance abuse was rated one of the most critical issues regarding combat-related deployments and substance abuse.
- Military members receiving timely and effective treatment was ranked as the one of the most critical issues regarding mental health preparedness as a nation.
- Stigma associated with seeking help was ranked one of the top issues with regard to future/long term medical challenges for military members/veterans with combat- related trauma.
- Experience treating combat-related mental health issues such as PTSD in terms of MHC challenges was rated among the top most critical.

Phase III (Results of the Present Study):

Table 1 presents a description summary of the demographics considered for the current study. A subset of three demographics: Level of Combat Exposure (CE), Number of Deployments (ND) and Sought Mental Health Care (SMHC) were selected based on the unequal sample sizes (as well as other considerations) indicated in this table.

Table 1

Sample Demographics

| Demographic | Sample (N) | % |
|---|------------|------|
| Total Participants | | |
| | 102 | 100 |
| Age | | |
| 18-25 | 13 | 12.7 |
| 26-35 | 15 | 14.7 |
| 36-45 | 17 | 16.7 |
| 46-55 | 11 | 10.8 |
| 56-65 | 39 | 38.2 |
| 66-over | 7 | 6.9 |
| Gender | | |
| Male | 93 | 91.2 |
| Female | 9 | 8.8 |
| Race | | |
| African American / Black / African Origin | 5 | 5.0 |
| American Indian / Alaska Native / Aboriginal Canadian | 1 | 1.0 |
| Asian-American / Asian Origin / Pacific Islander | 1 | 1.0 |
| Bi-racial / Multi- racial | 3 | 3.0 |
| European Origin / White | 85 | 85.0 |
| Latino-a / Hispanic | 4 | 4.0 |
| Other | 1 | 1.0 |
| Branch of Service | | |
| U.S. Army | 42 | 41.2 |
| U.S. Navy | 10 | 9.8 |
| U.S. Air Force | 26 | 25.5 |
| Branch of Service | | |
| U.S. Marines | 24 | 23.5 |
| U.S. Coast Guard | 1 | 1.0 |
| Active Duty Status | | |
| Active Duty | 12 | 11.8 |
| National Guard | 4 | 3.9 |

| Demographic | Sample (N) | % |
|---|------------|------|
| Military Reserves | 19 | 18.6 |
| Discharged/Separated | 31 | 30.4 |
| Retired | 36 | 35.3 |
| Rank Category | | |
| Enlisted | 80 | |
| Officer | 21 | |
| Volunteer/Draft Status | | |
| Draft | 6 | 5.9 |
| Volunteer | 95 | 94.1 |
| General Military Occupation | | |
| Air Operations (Pilot/aircrew) | 12 | 12.0 |
| Combat Operations | 35 | 35.0 |
| Ground Operations (Non-combat field operations) | 10 | 10.0 |
| Medical Staff | 2 | 2.0 |
| Special Operations | 21 | 21.0 |
| Support Operations (Primary duties within installation) | 20 | 20.0 |
| Combat Zone/Theatre | | |
| Iraq | 49 | 48.0 |
| Afghanistan | 15 | 14.7 |
| The Gulf War | 20 | 19.6 |
| Vietnam | 44 | 43.1 |
| Korea | 2 | 2.0 |
| WWII | 0 | 0.0 |
| Other (please specify) | 19 | 18.6 |
| Deployments/Tours | | |
| 1 | 54 | 52.9 |
| 2 | 24 | 23.5 |
| 3 | 11 | 10.8 |
| 4 | 7 | 6.9 |
| 5 | 3 | 2.9 |
| 6 | 0 | 0.0 |
| 7 | 0 | 0.0 |
| 8 or more | 3 | 2.9 |

| Demographic | Sample (N) | % |
|--|------------|------|
| Total # Months in Combat Zone | | |
| Less than 6 months | 6 | 5.9 |
| 6-12 Months | 47 | 46.1 |
| 12-24 Months | 36 | 35.3 |
| 24-36 Months | 7 | 6.9 |
| 36-48 Months | 3 | 2.9 |
| 48-60 Months | 1 | 1.0 |
| 60 or More Months | 2 | 2.0 |
| Level of Combat Exposure | | |
| No direct combat exposure | 10 | 9.9 |
| Occasional combat exposure | 48 | 47.5 |
| Consistent level of combat exposure | 21 | 20.8 |
| High level of combat exposure | 22 | 21.8 |
| Employment Status | | |
| Currently Employed | 61 | 60.4 |
| Currently Unemployed | 40 | 39.6 |
| Use of MHC as a Result of Experiences in a Combat Zone | | |
| Yes | 35 | 34.7 |
| No | 66 | 65.3 |

Research Question 1

What issues/challenges facing combat veterans will become more or less salient in five years?

Chi-square Goodness of Fit Test

The results of the Chi-square goodness of fit test found forty-three out of forty-six issues to be significant indicating that the frequency counts were not equally distributed. Patterns in the data are presented below. The issues were organized by the forecasting groups endorsed by the veterans. They were also grouped into sub-categories in order to provide a broader perspective of the issues: 1) Barriers to Seeking Mental Health Care (i.e., fear of stigma, cultural environment, labeling, etc.), 2) Access to Mental Health Care or Available Resources (i.e., access/availability to care or resources including established or standardized preventative measures, processes or procedures veterans are aware of and have access to immediately if needed), 3) Impact on Family/Finances/Resources (resources available to member and family regarding issues that impact the family as a whole) , 4) Impact of Combat Exposure (i.e., issues that may have been the result of or impacted by combat exposure and 5) Deployment Issues (i.e., issues dealing with deployment/re-deployment processes or procedures). Continuing challenges and improvements are noted below:

Combined Participant Group

The following results indicate how veterans in the Combined Participant (CP) group responded to the identified issues/challenges facing combat veterans.

Issues Becoming Worse of a Problem in Five Years

Veterans in the Combined Participant Group were more likely to endorse the following issues as *becoming worse of a problem* in five years.

Access/Barriers to Seeking Mental Health Care

Q36. Budget constraints impacting access to treatment

Q38. Increased demand on the mental health care system

Impact of Combat Exposure

Q10. Impact of repeated combat exposure on mental health and wellbeing

Q16. Long term effects on military member, spouse, and children following repeated deployments to combat exposure

Q31. Impact of multiple deployments to combat zones on rate of substance abuse

Q39. The impact on Long-term health care for those not treated early

Impact on Family/Finances/Resources

Q41. Financial difficulties for military members/family dependent on state/government aide

Issues Becoming Worse of a Problem or Remaining the Same in Five Years

Veterans in the Combined Participant Group were more likely to endorse the following issues as becoming worse of a problem or remaining the same in five years.

Access to Seeking Mental Health Care or Available Resources

Q35. Disability ratings as a role in the level of care given to the military member and accessibility to treatment

Q30. Follow up procedures with members separated from the military that have

been exposed to combat and may have delayed reactions

Impact of Combat Exposure (Possible Influence)

Q27. Increased suicide rate of military members

Impact on Family/Finances/Resources

Q42. Family stability of affected military members

Q44. Increased risk of homelessness for combat veterans

Issues Becoming Less of a Problem in Five Years:

Veterans in the Combined Participant Group were more likely to endorse the following issue as becoming less of a problem in five years.

Access to Medical/Mental Health Care / Resources

Q23. Immediate care provided for members with Traumatic Brain Injuries (TBI's)

Issues Remaining a Problem or Becoming Less of a Problem in Five Years

Veterans in the Combined Participant Group were more likely to endorse the following issues as becoming less of a problem or remaining a problem in five years.

Access to Mental Health Care or Available Resources

Q4. Accessible mental health treatment for military members with combat exposure

Q8. Mental health “outreach” programs available to military members.

Q14. Educational programs available to provide awareness of post combat challenges and Coping skills

Q24. Standardized and effective treatment/follow-up of TBI's

Barriers to Seeking Mental Health Care

Q1. Stigma as a role in seeking mental health assistance within the military

Q3. Increased risk of career suicide following mental health assistance

Issues Remaining the Same in Five Years

Veterans in the Combined Participant Group were more likely to endorse the following issues as remaining the same in five years.

Access to Mental Health Care or Available Resources

Q5. Adequate number of psychologists deployed to combat zones

Q9. Process that provides a seamless transition for the military member who
needs mental health assistance following combat related medical challenges

Q15. Preventive measures to minimize long-term health problems

Q20. Timely and effective screening for military members with possible combat
related challenges such as Post Traumatic Stress Disorder (PTSD)

Q21. Follow up process available for delayed onset of PTSD or other combat
related health

Q45. Knowledge of referral processes, procedures and access to appropriate care
for those who are separated from the military

Q46. Overall preparedness of the mental health care community nationwide, to
treat military members with combat exposure.

Barriers to Seeking Mental Health Care

Q2. Fear of being labeled when seeking mental health assistance

Q6. Availability of anonymous mental health care for military member

Q13. Preservation of member's career if unable to redeploy to combat zone due to combat related issues

Q28. Cost/consequences for military members who report suicidal thoughts, gestures, attempts

Q34. Cost/consequences for member identified as having a substance abuse problems, post combat deployment

Q37. Trusting environment within the mental health care system for veterans

Q40. Culture within the military regarding mental health assistance for military members

Deployment Issues

Q11. Follow-up measures to monitor the health and well-being of those who deploy and redeploy

Q12. Redeployment of members diagnosed with a mental health disorder associated with combat exposure

Q32. The need for substance abuse assessments conducted pre and post deployment

Impact of Combat Exposure

Q18. Member's job performance affected as a result of experiences in a combat zone

Impact on Family/Finances/Resources

Q17. Mental health assistance programs available/accessible to military families Pre/Post and during deployments

Q19. Risk of family violence during reintegration following a combat related

deployment

Q25. Long term impact of TBI's on military member and family

Q26. Immediate and appropriate integration of education and treatment designed to maximize care and ensure smooth transition for the returning member and their family

Q33. Available resources for family members when military member has been identified as having a Substance abuse problem

Q43. Vocational opportunities for returning military members

Research Question 2

What demographic differences will be identified in the following categories?

- a.) Veterans who sought mental health care
- b.) Veterans with different levels of combat exposure
- c.) Number of Deployments veteran completed

Table 2 presents the description of the three demographics selected for the present study, the questions asked for each demographic and answer choices.

Table 2
Selected Demographics

Three Critical Demographics Selected for Study

| Demographics | Questions Asked on Survey | Answer Choices |
|-----------------------------|---|--|
| Total Number of Deployments | Please indicate number of deployments/tours to a combat zone | 1,2,3,4,5,6,7,8 or more |
| Level of Combat Exposure | Please indicate your general level of combat exposure | <ul style="list-style-type: none"> • No direct combat exposure • Occasional combat exposure • Consistent level of combat exposure • High level combat exposure |
| Sought Mental Health Care | Have you utilized mental health care services as a result of your experiences in a combat zone? | <ul style="list-style-type: none"> • Yes • No |

Chi-square Test of Independence

Two out of three demographic groups selected for this study yielded significant differences indicating that the frequency counts were not equally distributed: 1) the Sought Mental Health Care group (39 out of 46 issues were found to be significant) and 2) the Level of Combat Exposure group (2 out of 46 issues were found to be significant issues). No significance differences were found in the Number of Deployments (ND) group. It should be noted that one assumption to the Chi-Square test was not fully met in that, in nine of the 46 issues, the expected count in one of the cells was less than five. This should be considered when reviewing the results.

The challenges were organized by the response patterns regarding the forecasting groups. They were also grouped into sub-categories in order to provide a broader perspective of the issues: 1) Barriers to Seeking Mental Health Care (i.e., fear of stigma, cultural environment, labeling, etc.), 2) Access to Mental Health Care or Resources (i.e., access/availability to care or resources including established or standardized preventative measures, processes or procedures veterans are aware of and have access to immediately if needed), 3) Impact on Family/Finances/Resources (resources available to member and family regarding issues that impact the family, overall) , 4) Impact of Combat Exposure (i.e., issues that may have been the result of or impacted by combat exposure and 5) Deployment Issues (i.e., issues dealing with deployment/re-deployment processes or procedures).

Sought Mental Health Care (SMHC) Group

The Chi-Square results indicate the participant's responses to the 46 issues were influenced by whether they sought mental health care (Yes) or did not seek mental health care (No). Issues are presented in related topic (sub-categories) and forecasting groups. Various patterns were noted. See below:

Issues Becoming Worse of a Problem or Remaining a Problem (Yes), or Becoming Less of a Problem (No)

Chi-Square patterns suggest that veterans who sought mental health care were more likely to endorse the following issues as becoming worse or remaining a problem and

veterans who did not seek mental health care were more likely to endorse the following issues as becoming less of a problem. Additional patterns are described below:

1. The veterans who did not seek mental health care also responded to each issue as *remaining a problem* at a close or higher level than *becoming less of a problem* (with the exception of Q's 1, 14 and 23). However, in all but one of the cases, the Chi-Square observed frequency distribution data was lower than the Chi-Square expected frequency distribution data (In Q 22, the higher observed value in the *remains the same* response did meet the expected value).
2. The veterans who sought mental health care responded to these issues (with the exception of question # 22) as *remaining a problem* at a higher level than *becoming worse of a problem* (Chi-Square observed frequency distribution data did exceed the Chi-Square expected frequency distribution data in this case).

The Chi-Square results indicate seeking mental health care (or not seeking mental health care) had an influence on the responses to the issues in this group, while also noting the meaningful patterns in the raw data

Access to Mental Health Care or Available Resources

Q5: Adequate number of psychologists deployed to combat zone: It should be noted that a higher number of veterans who did not seek mental health care also responded to this issue as remaining a problem, however the observed value was slightly lower than the expected value.

Q9: Process that provides a seamless transition for the military member who needs mental health assistance following combat-related medical challenges:

It should be noted that a higher number of veterans who did not seek mental health care responded to this issue as remaining a problem, however the observed value was slightly lower than the expected value.

Q14: Educational programs available to provide awareness of post combat challenges and coping skills

Q15: Preventive measures to minimize long-term health problems: It should be noted that the veterans who did not seek mental health care had the same number of veterans endorse the issue as remaining a problem as becoming less of a problem, however the observed value was slightly lower than the observed value (in the remaining the same category).

Q22: Preventive measures in place to address or minimize PTSD symptoms

Q23: Immediate care provided for members with Traumatic Brain Injuries (TBI's)

Q45: Knowledge of referral processes, procedures and access to appropriate care for those separated from the military: It should be noted that a higher number of veterans who did not seek mental health care endorsed the issue as becoming remaining the same in five years, however, the observed value did not meet the expected value.

Barriers to Mental health Care

Q1: Stigma as a role in seeking mental health assistance within the military

Q2: Fear of being labeled when seeking mental health assistance: It should be noted that a higher number of veterans who did not seek mental health care responded to this issue as remaining a problem, however the observed value was slightly lower than the expected value.

Q3: Increased risk of career suicide following mental health assistance: It should be noted that the number of veterans who did not seek mental health care and also responded to this issue as remaining a problem was statistically close to the expected value and higher than those who responded to becoming less of a problem.

Deployment Issues

Q11: Follow-up measures to monitor the health and well being of those who deploy and re- deploy: It should be noted that a higher number of veterans who did not seek mental health care responded to this issue as remaining a problem, however the observed value was slightly lower than the expected value. It should also be noted that statistically, those who did not seek mental health care responded similarly across forecasting categories.

Q12: Re-deployment of members diagnosed with a mental health disorder associated with combat exposure: It should be noted that a higher number of veterans who did not seek mental health care also responded to this issue as remaining a problem, however the observed value was slightly lower than the expected value.

Impact on Family/Finances/Resources

Q26: Immediate and appropriate integration of education and treatment designed to maximize care and ensure smooth transition for the returning member and their family: It should be noted that a higher number of veterans who did not seek mental health care also responded to this issue as remaining a problem, however the observed value was slightly lower than the expected value.

Q33: Available resources for family members when military member has been identified as having a substance-abuse problem: It should be noted that the number of veterans (who did not seek mental health care) who endorsed this issue as remaining the same was close to the number endorsing the issue as becoming less of a problem, however, the observed value did not meet the expected value.

Q43: Vocational opportunities for returning military members: It should be noted that the number of veterans (who did not seek mental health care) who endorsed this issue as remaining the same was close to the number endorsing the issue as becoming less of a problem, however, the observed value did not meet the expected value.

Issues Becoming Worse of a Problem (Yes), or Remaining the Same or Becoming Less of a Problem (No)

Veterans who sought mental health care were more likely to endorse the following issues as becoming worse of a problem in five years. Veterans who did not seek mental health care were more likely to endorse the following issues as remaining the same or becoming less of a problem in five years. There were some patterns of interest in the data as noted below:

1. For the veterans who did not seek mental health care:
 - Six issues were also endorsed as *becoming worse of a problem* (at a close or higher rate than the other forecasting categories), however, in all cases

the Chi-Square observed value was lower than the Chi-Square expected value.

- Where veterans who did not seek mental health care were more likely to endorse the two forecasting groups (*remaining the same or becoming less of a problem*), a higher number was endorsed as *remaining a problem* for the issues in this group.

2. For veterans who sought mental health care:

- There were seven issues in which veterans who sought mental health care also endorsed these issues as *remaining a problem* (with the exception of questions 27 and 28) at a similar rate as *becoming worse of a problem*. However, in all cases, the Chi-Square observed value was lower than the Chi-Square expected value.

The results indicate there is a relationship between seeking mental health care (or not seeking mental health care) and the responses to the following issues. In addition, it is important to note the close range of the data for many of the responses.

Access to Mental Health Care or Available Resources

Q20: Timely and effective screening for military members with possible combat-related challenges such as Post Traumatic Stress Disorder (PTSD). It should be noted veterans who sought mental health care also endorsed this issue as remaining the same at a similar rate. However, the observed value was lower than the expected value.

Q21: Follow up process available for delayed onset of PTSD or other combat-related health Issues: It should be noted that the number of veterans (who sought mental health care) who endorsed this issue as remaining the same was close to the number endorsing the issue as becoming worse and only .6 under the expected value.

Q29: Pre/post combat evaluations conducted for suicidal thoughts or intent. It should be noted veterans who sought mental health care also endorsed this issue as remaining the same at a similar rate however, the observed value was lower than the expected value.

Q30: Follow up procedures with members separated from the military that have been exposed to combat and may have delayed reactions.

Q32: The need for substance abuse assessments conducted pre and post deployment

Q35: Disability ratings as a role in the level of care given to the military member and accessibility to treatment

Q36: Budget constraints impacting access to treatment: It should be noted that the highest number of responses of veterans who did not seek mental health care endorsed this issue as becoming worse of a problem however, the observed value was lower than the expected value.

Q38: Increased demand on the mental health care system: It should be noted that the highest number of responses of veterans who did not seek mental health care endorsed this issue as becoming worse of a problem however, the observed value was lower than the expected value.

Q46: Overall preparedness of the mental health community nationwide to treat military members with combat exposure: It should be noted veterans who sought mental health care also endorsed this issue as remaining the same at a similar rate however, the observed value was lower than the expected value.

Barriers to Seeking Mental health Care

Q13: Preservation of member's career if unable to re-deploy to combat zone due to combat- related issues

Q28: Cost/consequences for military members who report suicidal thoughts, gestures or attempts

Q34: Cost/consequences for member identified as having a substance abuse problem, post combat deployment

Q37: Trusting environment within the mental health care system for veterans seeking treatment.

Q40: Culture within the military regarding mental health assistance for military members: It should be noted that a higher number of veterans who sought mental health care endorsed the issue as remaining a problem however, the observed value did not meet the expected value.

Impact of Combat Exposure

Q10: Impact of repeated combat-exposure on mental health and well-being: It should also be noted that those who did not seek mental health care endorsed this issue as becoming worse of a problem at a higher rate than the other two forecasting categories, however, the observed value was lower than the expected value.

Q18: member's job performance affected as a result of experiences in a combat zone

Q19: Risk of family violence during re-integration following a combat-related deployment: It should be noted that the number of veterans who sought mental health care also endorsed this issue as remaining the same similar to the number endorsing the issue as becoming worse and only .6 under the expected value.

Q27: Increased suicide rate of military members

Q31: Impact of multiple deployments to combat zones on rate of substance abuse: It should be noted the veterans (who did not seek mental health care) responded to this issue as becoming worse of a problem at a higher rate, however the observed value did not meet the expected value.

Q39: The impact on long-term health care for those not treated early: It should be noted that the highest number of responses of veterans who did not seek mental health care endorsed this issue as becoming worse of a problem however, the observed value was lower than the expected value.

Impact on Family/Financial Resources

Q25: long term impact of TBI's on military member and family: It should be noted that the number of veterans (who sought mental health care) who endorsed this issue as remaining the same was close to the number endorsing the issue as becoming worse, however, the observed value was below the expected value.

Q41: Financial difficulties for military members/family - dependence on state/government aide. It should be noted that a higher number of veterans who did not seek mental health care endorsed the issue as becoming worse, however, the observed value did not meet the expected value.

Q42: Family stability of affected military members

Q44: Increased risk of homelessness for combat veterans

Level of Combat Exposure

Two issues were found to be significant within this demographic. A close look at the Chi-Square expected frequency distribution data and the Chi-Square observed frequency distribution data reveals the following patterns with regard to veteran's level of combat exposure.

Q35: Disability ratings as a role in the level of care given to the military member and accessibility to treatment:

The relationship between the level of combat exposure and disability ratings as a role in the level of care given to the military member and accessibility to treatment was significant. It is also important to note the closeness in the data regarding the responses of veterans with an occasional level of combat exposure. Patterns in the data are described below:

1. Veterans with no direct combat exposure were more likely to endorse this issue as remaining a problem in five years
2. Veterans with occasional combat exposure were more likely to endorse this issue as becoming less of a problem. The data also indicated that the veterans with

occasional combat exposure also endorsed this issue as remaining the same and becoming worse of a problem at a close or higher range than becoming less of a problem. However, the observed frequency distribution data was less than the expected frequency distribution data. The pattern differences in the raw data distribution may be due to a small sample size. Future studies may strengthen this result and provide a clearer distribution of data given a larger sample size.

3. Veterans with a consistent level of combat were more likely to endorse this issue as remaining a problem in five years.
4. Veterans who had a high level of combat exposure were more likely to endorse this issue as becoming worse of a problem in five years.

Q2 Fear of being labeled when seeking mental health care:

The veterans in the level of combat exposure group were more likely to endorse this issue as remaining a problem in five years. The data indicates there is a relationship between the level of combat exposure and this issue.

Research Question 3

Do those who sought mental health care differ from those who did not seek mental health care in terms of the number of deployments, controlling for the level of combat exposure?

Table 3

ANCOVA For the Number of Deployments/Tours to a Combat Zone

| | Type III Sum of Squares | df | Mean Square | F |
|------|-------------------------|----|-------------|------|
| SMHC | .004 | 1 | .004 | .002 |

**p < 0.01

Research Question 4

Do those who sought mental health care differ from those who did not seek mental health care in terms of the level of combat exposure, controlling for the number of deployments?

Table 4

ANCOVA For the General Level of Combat Exposure

| | Type III Sum of Squares | df | Mean Square | F |
|------|-------------------------|----|-------------|---------|
| SMHC | 7.834 | 1 | 7.834 | 9.148** |

**p < 0.01

An Analysis of Covariance (ANCOVA)

Two Analysis of Covariance (ANCOVA) tests were conducted to investigate (Test 1) Seeking Mental Health Care with regard to Level of Combat Exposure, controlling for Number of Deployments and (Test 2) Seeking Mental Health Care with regard to Number of Deployments, controlling for Level of Combat Exposure.

Test 1: prior to conducting the ANCOVA, a test of homogeneity of regression found no significant interaction between the CV and IV ($p = .125$). The correlation between the level of combat exposure and the number of deployments was significant

($p = .0508$). Following the assumption tests, the first ANCOVA investigated seeking mental health care with regard to the level of combat exposure, controlling for the number of deployments. The results were significant ($p = .003$). The number of deployments were non-significant when included as a control variable ($F(1, .183) = .220$, $p = .640$). Therefore, the level of combat exposure is more likely to increase seeking mental health care after controlling for the number of deployments.

Test 2: prior to conducting the second ANCOVA, a test of homogeneity of regression found no significant interaction between the CV and IV ($p = .864$). The correlation between the level of combat exposure and the number of deployments was found to be significant ($p = .0508$). Following the assumption tests, the second ANCOVA investigated seeking mental health care with regard to the number of deployments, controlling for the level of combat exposure which found no significance ($p = .967$). The level of combat exposure was found to be non-significant when included as a control variable ($F(1, .506) = .220$, $p = .640$).

The Chi-Square assumptions had the following limitations: 1) The range of the covariates (the number of deployments and the level of combat exposure) were limited and non-continuous, 2) With regard to the number of deployments, over half of the population sample reported participating in one deployment and approximately one-third of the sample reported participating in two deployments. The number of participants who participated in more than two deployments dropped off dramatically which positively skewed the distribution and with regard to the level of combat exposure, the questionnaire offered four levels however, a minimum of five levels or more is preferred.

Noteworthy Demographic Statistics are Presented in Tables 5, 6 and 7

Table 5 indicates the number of participants (and their active duty status) who sought mental health care services. Table 6 indicates the number of veterans who sought mental health care in each combat theatre. Table 7 indicates the number of participants who sought mental health care and the level of combat exposure.

Table 5
Active Duty Status and Seeking Mental Health Care

Have you utilized mental health care services as a result of your experiences in a combat zone?

Indicate Active Duty Status

| Answer Options | Active Duty | National Guard | Military Reserves | Discharged/ Separated | Retired |
|----------------|-------------|----------------|-------------------|-----------------------|---------|
| Yes | 50% | 25% | 21.1% | 41.9% | 31.4% |
| No | 50% | 75% | 78.9% | 58.1% | 68.6% |

Table 6
Combat Zone/Theatre and Seeking Mental Health Care

Have you utilized mental health care services as a result of your experiences in a combat zone?

Please indicate combat zone(s)/conflict/war you have served in

| Answer Options | Iraq | Afghanistan | The Gulf War | Vietnam |
|----------------|-------|-------------|--------------|---------|
| Yes | 32.7% | 26.7% | 30.0% | 39.5% |
| No | 67.3% | 73.3% | 70% | 60.5% |

Table 7
Sought MHC and Level of Combat Exposure

| Please indicate your general level of combat exposure | | | | |
|---|---------------------------|----------------------------|-------------------------------------|-------------------------------|
| Answer Options | No direct combat exposure | Occasional combat exposure | Consistent level of combat exposure | High level of combat exposure |
| Yes | 20% | 25.5% | 28.6% | 63.6% |
| No | 80% | 74.5% | 71.4% | 36.4% |

Chapter V

Discussion

The purpose of this study was to poll the opinions of veterans regarding challenges they believe will become worse of a problem, less of a problem or remain a problem in five years based on their own experiences. Future challenges were forecasted by the Combined Participant Group (CP) and significant differences were found by two of the demographic groups: Seeking Mental Health Care (SMHC) group and the Combat Exposure (CE) group. Significant differences were not found for the Number of Deployments (ND) group.

The challenges were organized by the endorsed forecasting groups. They were also grouped into sub-categories in order to provide a broader perspective of the issues. The sub-groups also demonstrate topic patterns: 1) Access to Mental Health Care or Available Resources, 2) Barriers to Seeking Mental Health Care 3) Impact on Family/Finances/Resources, 4) Impact of Combat Exposure and 5) Deployment Issues.

The Analysis of Covariance (ANCOVA) found differences in those who sought mental health care versus those who did not seek mental health care in terms of the level of combat exposure, controlling for number of deployments. However, no differences were found in those who sought mental health care versus those who did not in terms of number of deployments, controlling for the level of combat exposure.

Combined Participant Group

The Combined Participant (CP) group reported their forecasting opinions regarding the future direction of 46 challenges facing combat veterans. The 43 significant responses suggest that while some barriers or access to mental health care will remain or

become worse of a problem in five years; other issues in these categories may be becoming less of a problem. A clear pattern among the responses also indicates the challenges that were more likely to be endorsed as, "becoming less of a problem", or "remaining a problem or becoming less of a problem" were much lower than any other forecasting category (total of 7 of the 43 significant issues). With the few exceptions noted, the results are consistent with the previous study (Tormey, 2008). What this means is that the majority of the issues identified as current challenges by experts in the previous study were endorsed by veterans in the present study as either remaining a problem or becoming worse in five years (35 issues out of 43).

Other patterns noted in the study include topic patterns. For example, many of the challenges that veterans forecasted as "remaining a problem" or "becoming worse of a problem" were included in the "Access to Mental Health Care or Available Resources", or "Barriers to Seeking Mental Health Care" categories. This finding is important because having access or feeling free to seek mental health care (without stigma, cultural barriers or fear of career suicide, etc.) is critical to early intervention and minimizing long term health issues that could affect military members, their families and the mental health care system, overall. Equally important were many other challenges endorsed as becoming worse or remaining a problem that were included in the "Impact of Combat Exposure", "Impact on Family/Finances/Resources" and "Deployment issues" categories. The impact of repeated combat exposure can be far reaching and effect any or all areas of a veteran's life and the life of his/her family. Physical and mental health issues as well as family stability and financial issues are the types of challenges returning veterans may experience.

A closer look at some of the forecasting issues reveal various areas that were endorsed as getting better and areas endorsed as needing to be addressed in future; issues that are important to the mental health and well-being of our nation's military members and veterans.

Issues becoming Worse of a Problem

Challenges in this five year forecasting category were more likely to be endorsed as becoming worse of a problem in five years. Topic patterns were demonstrated in three sub-categories: Access/Barriers to Seeking Mental Health Care, Impact of Combat Exposure and Impact on Family/Finances/Resources.

Access/Barriers to Seeking Mental Health Care

The two issues that were more likely to be endorsed as becoming worse of a problem were, "increased demand on the mental health care system" and "budget constraints impacting access to treatment". The respondent's concern for these issues is consistent with the previous study (Tormey, 2008) and current literature. Since the onset of the Iraq war, the number of military veterans seeking treatment has increased substantially. According to Williamson & Mulhall (2009), over 178,000 Iraq and Afghanistan veterans received an initial diagnosis by the Department of Veterans Affairs (VA) which accounted for "almost 45 percent of new veterans who had visited the VA for any reason" (p. 2). The number of veterans continues to increase each year, adding to the 22 million veterans in our nation today (Department of Veterans Affairs, 2012e).

With the growing number of veterans needing care, budget constraints can have an impact on access to the level of care available to veterans. For instance, when veterans enroll with the VA, they are assigned to one of eight priority groups. The purpose of

these groups is to manage the demands on the VA with budget or resources. For example, if the demand for VA services increases and resources become more limited, the number of priority groups that are offered may need to be decreased (Department of Veterans Affairs, 2011d).

Despite the influx on demand and resulting challenges faced by the VA, great strides have been made in meeting many needs of our nation's veterans. As the VA's budget increased (since the beginning of the Iraq war), they have increased services and resources available to veterans, hired additional staff (Williamson & Mullhal, 2009), and collaborated with the Department of Defense on various programs, such as research and treatment of TBI's (Department of Veterans Affairs, 2011a). While these improvements continue to make a difference, the number of veterans needing health care is expected to increase in the foreseeable future which will require additional funds. In anticipation of increased demands on the VA, a \$140.3 billion budget has been proposed for the next fiscal year (Department of Veterans Affairs. (2011e). In the meantime, other sources in the community may be able to provide additional care and resources to veterans. For example, Tanielian & Jaycox, (2008), suggested that increasing access to mental health care for Iraq and Afghanistan veterans may include (among others) an "expansion of Vet Centers" and "community-based providers" (Tanielian & Jaycox, 2008, Summary, xxv).

Impact of Combat Exposure

The impact of combat exposure has been an increased area of focus in recent years, particularly given that repeated deployments to Iraq and Afghanistan has become the norm for military members. The issues endorsed as becoming worse of a problem in this sub-category include concerns regarding the impact of repeated combat exposure on

substance abuse, long term effects of repeated combat exposure on veterans and their families, and the overall health and well-being of veterans if not treated early.

Repeated combat exposure can mean an increased risk of mental health issues such as Post Traumatic Stress Disorder (Hoge, et al., 2004). Polusny, et al. (2009), found a higher rate of reported symptoms for those previously deployed. The study involving National Guard/Reserve (NGR) soldiers investigated whether previous combat deployments to Iraq/Afghanistan had an effect on both psychiatric and somatic symptoms reported 1 month prior to deployment to Iraq. A comparison between soldiers preparing to deploy for the first time and soldiers who had previously deployed to Iraq/Afghanistan indicated that soldiers who previously deployed reported PTSD, depression, and somatic symptoms at a higher rate than soldiers who had not (preparing for first deployment), demonstrating increased risk for mental health problems with repeated combat exposure Polusny, et al. (2009),

The combat environment may also increase the risk of substance abuse for combat veterans (National Institute on Drug Abuse (2011), particularly in those diagnosed with PTSD (National Center for PTSD, 2010). According to the National Institute on Drug Abuse (2011), prescription drug use in the military doubled between 2002 and 2005 and more than tripled between 2005 and 2008. A relationship was also found between drug and alcohol use and 30 percent of deaths from suicide in the Army between 2003-2009 (National Institute on Drug Abuse, 2011).

The effects of combat exposure can impact many areas of a veteran's life and the lives of their family. With increased levels of substance abuse and PTSD, for example,

long term challenges and the overall health and well-being of veterans and their families may be at risk, particularly if not treated early.

Impact on Family/Finances/Resources

The current study found that financial difficulties for military members and their families dependent on state/government aid would become worse of a problem for veterans in five years. One of the most pronounced indicators of this is the number of homeless veterans in America who are unable to sustain their standard of living given a number of variables they may be dealing with. According to the National Coalition for Homeless Veterans (NCHV, 2011a), approximately one third of the homeless population in the U.S. are veterans and approximately one third of homeless veterans served in a combat zone (National Coalition for Homeless Veterans, 2011a). In addition, the NCHV (2011a) reported that approximately 1.5 million veterans are currently at risk of becoming homeless given their economic or financial status or limited support network.

Military members have also been utilizing food stamps at an increased rate in recent years. According to Mitchell (2009), in 2008, military members utilized over 31 million food stamps in commissaries across the nation and that the Defense Commissary Agency reported the military rate to be almost twice that of their civilian counterparts.

Financial difficulties can also occur when National Guard or Reserve members deploy for long periods of time, losing their civilian jobs/income needed to sustain their family financially. This ongoing challenge has been recognized by many government and civilian agencies that provide some financial assistance. For example, the Department of Defense provides financial information, training and counseling through the Personal Financial Management program as well as other programs and services (Military

Homefront, 2011). The challenge for some military members is having the knowledge that such resources are available to them, underscoring the need for outreach and awareness programs.

Issues Becoming Worse of a Problem or Remaining the Same in Five Years

Challenges in this five year forecasting category were more likely to be endorsed as becoming worse of a problem or remaining the same in five years. What is important to note with these issues, whether endorsed as remaining a problem or getting worse, they are challenges veterans believe will not get better in five years. Topic patterns were demonstrated in three sub-categories: Access to Seeking Mental Health Care and Available Resources, Impact of Combat Exposure and Impact on Family/Finances/Resources.

Access to Seeking Mental Health Care or Available Resources

The two issues in this category included disability ratings as a role in the level of care to military members and access to treatment and follow up procedures for mental health care once separated from the military that have been exposed to combat and may have delayed reactions. The veterans concerns regarding these issues are consistent with the previous study in which field experts identified them as being a challenge for veterans (Tormey, 2008).

In order to have a better understanding of how the VA enrollment system works, the following describes some of the general criteria (with a few exceptions) needed for health care services with the VA (Department of Veterans Affairs, 2011d): Veterans may enroll for VA health care services if they served on active duty status with any branch of

service (including the National Guard or Reserves if they were called to active duty status by federal order and completed the terms of the order); if they meet the criteria for length of time in service (with a few exceptions, “veterans who enlisted after 9/7/1980 or entered active duty after 10/16/1981 must have served 24 continuous months or the full period for which they were called to active duty”(para. 2)); and if they were discharged under other than dishonorable conditions (Department of Veterans Affairs, 2011d).

As mentioned earlier, veterans who enroll with the VA are then assigned to one of eight priority groups. The purpose of these groups is to manage the demands on the VA with budget or resources. Therefore, if the demand for VA services increases and resources become more limited, the number of priority groups that are offered may need to be decreased (Department of Veterans Affairs, 2011d).

Department of Veterans Affairs, 2011d): The following are examples of priority group criteria :

Group 1: Veterans with service-connected disabilities rated 50 percent or more and/or veterans determined by VA to be unemployable due to service-connected conditions. **Group 2:** Veterans with service-connected disabilities rated 30 or 40 percent. **Group 3:** Veterans with service-connected disabilities rated 10 and 20 percent; veterans who are former Prisoners of War (POW) or were awarded a Purple Heart medal; veterans awarded the Medal of Honor (MOH) veterans awarded special eligibility for disabilities incurred in treatment or participation in a VA Vocational Rehabilitation program; and veterans whose discharge was for a disability incurred or aggravated in the line of duty. **Group 4:** Veterans receiving

aid and attendance or housebound benefits and/or veterans determined by VA to be catastrophically disabled.

Group 5: Veterans receiving VA pension benefits or eligible for Medicaid programs, and non service-connected veterans and non-compensable, zero percent service-connected veterans whose gross annual household income and/or net worth are below the VA national income threshold and geographically-adjusted income threshold for their resident area. (para. 4)

The VA recently made a change to improve and extend access to health care services for combat veterans (including National Guard/Reserves) who served in Iraq or Afghanistan. These combat veterans may, without cost, utilize VA health care services for up to five years following discharge (or date of release) from the service if their condition is combat-related (from the Iraq/Afghanistan war), (Department of Veterans Affairs, 2011b). The five year time frame may offer some flexibility for those who have delayed reactions (i.e., delayed symptoms of TBI's, PTSD, etc.) to combat related experiences as well as for those who may not have the financial means to address these issues, otherwise. This VA benefit is critical for members of the National Guard and Reserve personnel as they may experience limited access to military health care services once they are no longer on active duty status. A recent study indicated that National Guard and Reserve soldiers reported higher rates of interpersonal conflict, PTSD, depression and overall mental health risk (Milliken, Auchterlonie & Hoge, 2007), which underscores the importance of access and early treatment for this particular population.

Other services, such as transitional programs are offered to veterans leaving the military. For example, Veterans Affairs (VA) hospitals/clinics offer programs designed to

connect with and treat veterans prior to discharge (or connect them with appropriate resources) if delayed onset/reactions to combat should occur (Department of Veterans Affairs, 2011c). Programs such as those offered through the VA help to make for a smooth transition, offering military members/veterans knowledge and information regarding viable resources. For example, “briefings are offered prior to discharge, in town meetings, family readiness groups, during drills of returning Guard and Reservists; and trained recently returned veterans serve as a National Guard liaison in every state to assist their fellow combat veterans” (para. 5). VA representatives are also “placed at key military treatment facilities and hospitals where severely injured service-members are sent” (U.S. Department of Veterans Affairs, 2011c, para. 6). The Department of Veterans Affairs “provides health care services to more than five million veterans per year at little or no expense to the veteran” (Congressional Budget Office, 2010, para. 1). According to the VA, within five years, one million active duty members will join our nation’s 22 million veterans (Department of Veterans’ Affairs, 2012).

Impact of Combat Exposure

The increased rate of suicide among military members has been a focus of concern for the Department of Defense and the VA since the beginning of the Iraq war. Many combat-related challenges can become overwhelming for veterans, particularly considering that barriers to seeking mental health care such as stigma and access to resources (in some cases) can impact opportunities for early intervention. Participants in the CP group indicated that increased rates of suicide within the military would remain a problem or become worse of a problem in five years. This growing concern is consistent with current literature which indicates that suicide in the military continues to climb,

particularly in National Guard/Reserve personnel. A recent report (SAMHSA, 2011), identifying strategic initiatives for 2011-2014, indicated that the rate of suicide in members of the National Guard/Reserves increased by 55 percent. Although the rate of suicide in the Army dropped slightly in 2010 (from 162 in 2009 to 156 in 2010), (SAMHSA, 2011), the numbers continue to increase among other branches of service. According to Braswell and Kushner (2010), suicides increased in the Air Force from 12.5 per 100,000 in 2008 to 13.7 per 100,000 in 2009. In 2009, the Marines suicide rates increased from 21.7 per 100,000 in 2008 to 24 per 100,000 in 2009 (Kovach, 2010) and Navy suicide rates increased from 11.6 per 100,000 in 2008 (Faram, 2009) to 14.5 per 100,000 in 2009 (Spoth, 2010).

Women in the military or female veterans appear to be at an increased risk of suicide as well. A recent American Psychiatric Association (APA) news release (Herold & Connors, 2010), described the risk of suicide among young military women as a “hidden epidemic” (p 1). It was further reported that women of middle age and older who were currently on active duty status or a military veteran were also at increased risk (Herold & Connors, 2010).

Similarly, the Oregon Health and Science University (2010) found that young female military veterans were likely to commit suicide at a rate three times higher than civilians. In addition, the National Institute of Mental Health (2011), reported the suicide rate among women in the Army increased from 14.8 to 21.1 per 100,000, between the years 2004-2008. Increased rates of suicide continue to be a focus of concern for the military. Future research is needed to further address the issue and develop effective preventative measures.

Impact on Family/Finances/Resources

Areas of concern in this category included family stability and increased risk of homelessness; concerns that are consistent with the previous study (Tormey, 2008). The family stability of returning combat veterans can involve a multitude of challenges. For instance, severe financial problems or instability could lead to homelessness. A recent report (SAMHSA, 2011), identifying strategic initiatives for 2011-2014, reported that nearly 76,000 veterans were homeless in 2009 and approximately 136,000 veterans were utilizing overnight shelters (Department of Veterans Affairs 2009, Department of Housing and Urban Development, 2009).

Programs to assist homeless veterans continue to grow. For example, the Department of Veterans Affairs (VA) is taking action to end homelessness among veterans in five years through better access to resources, programs and services available at the VA (Department of Veterans Affairs, 2009). The National Coalition for Homeless Veterans (2011b) describes another significant effort to aide homeless veterans, which is in the form of 122 grants (which total approximately \$28 million dollars) being awarded through the U.S. Department of Labor's (DOL) Homeless Veterans Reintegration Program (HVRP). "The funding includes \$4,335,775 for the Homeless Female Veterans, Veterans with Families Program, and \$3,882,443 for the Incarcerated Veterans Transition Program" (National Coalition for Homeless Veterans, 2011b, para. 1-2).

Another concern highlighted by participants is family stability. Family stability may be affected by changing family dynamics and adjustment to changes influenced by combat. Military members are often changed following combat exposure. The changes can be psychological, physical or both which can have a major impact on the entire

family (Hutchinson & Banks-Williams, 2007). In fact, Manguno-Mire, et al. (2007) reported “significant levels of psychological distress, depression and suicidal ideation” (p 144), among female partners of male combat veterans. Sayers, Farrow, Ross, & Oslin (2009) recently investigated family problems among recently returned military veterans referred for a mental health evaluation. One of the challenges facing veterans in the study was the veteran’s reintegration back into their families. More specifically, the authors indicated that more than 40 percent of veterans reported feeling “like a guest in their home” (p. e7) , approximately 25 percent “reported that their children were acting afraid of them” (p. e 7), “over 50 percent reported mild to moderate domestic abuse” (p. e7) and approximately 4.4 percent reported that an injury occurred to either the veteran or the partner as a result of a conflict between them (Sayers, Farrow, Ross, & Oslin (2009). This study offers some insight as to what families of combat veterans may be experiencing. Few studies have been done in this area. Future research may offer more information and recommendations.

Issues Becoming Less of a Problem in Five Years

The Challenge in this five year forecasting category was more likely to be endorsed as becoming less of a problem in five years. Improvements have been made in this area, particularly since the Iraq war began and may demonstrate the current level of access to veterans in this area. This issue deals with access to immediate care for Traumatic Brain Injuries (TBI’s).

Access to Mental Health Care or Available Resources

The one issue endorsed as becoming less of a problem by the CP group was immediate care provided for members with traumatic brain injuries. It should be noted that veterans with Traumatic Brain Injuries (TBI's) were not included in the present study due to possible confidentiality issues (i.e., if unable to take the survey without assistance, the veteran's confidentiality would be compromised). Therefore, the fact that the study did not include veterans that have gone through the process of seeking treatment for a TBI may have made a difference in the responses. However, the current study population may still have some knowledge of available resources in this area. Given these considerations, it is important to discuss the current literature regarding TBI's and developments that have been made in this area. Traumatic Brain Injuries (TBI's) have become known as the, "Signature Injury" of the war and the focus of research and collaborative efforts to develop innovative programs designed to effectively treat TBI's has been on the rise. The Department of Veterans Affairs (VA) and the Department of Defense (DOD) (through the Defense and Veterans Brain Injury Center (DVBIC)) continue to work collaboratively on many programs designed for research and the comprehensive treatment of TBI's.

Department of Veterans Affairs (2011a) describes research and treatment programs:

Since 1992, DVBIC staff members have been integrated with VA Lead TBI Centers (now Poly-trauma Rehabilitation Centers) to collect and coordinate surveillance of long-term treatment outcomes for patients with TBIs. In addition, the VA and the DVBIC have been developing collaborative clinical research protocols; developing and implementing best clinical practices for TBI;

developing materials for families and caregivers of Veterans with TBI;
developing integrated education and training curriculum on TBI; joint training of
VA and DOD health care providers; and coordinating the development of the best
strategies and policies regarding TBI for implementation by VA and DOD
(Department of Veterans Affairs, 2011a, para. 2).

Many other programs have been developed by the VA and the DOD, both
collaboratively and separately. In recent years, for example, the VA, implemented the
Transitional Rehabilitation Program, the Emerging Consciousness Program, and the
Telehealth Network and Reintegration Plan; all designed to address the various needs of
veterans with TBI's (Department of Veterans Affairs, 2011a).

It appears that research and technological advancements may be making an
impact in the treatment and care of TBI's today and will, more than likely, continue to do
so. Immediate care provided for members with TBI's was found by the CP group to
become less of a problem in five years which may reflect the quality, timeliness and level
of care currently provided for veteran with TBI's in the mental health care system.

Issues Remaining a Problem or Becoming Less of a Problem Five Years

Challenges in this five year forecasting category were more likely to be endorsed as
remaining a problem or becoming less of a problem in five years. Topic patterns were
demonstrated in two sub-categories: Access to Seeking Mental Health Care and
Available Resources and Barriers to Seeking Mental Health Care.

Access to Mental Health Care or Available Resources

Access to mental health care is one of the most important issues addressed in the present study. The issues in this category involved access to mental health treatment for military members with combat exposure; available outreach and education programs (for post combat challenges and coping skills), and standardized and effective treatment for TBI's.

As mentioned earlier, access to mental health care is critical to early intervention and minimizing the risk of long term health issues. The CP group was more likely to endorse the issue of accessible mental health treatment for military members with combat exposure as remaining a problem or becoming less of a problem. The difference in how the CP group responded to this issue may have been based on the veteran's varying experiences regarding access. Access, for example, may be more difficult for some members of the National Guard and Reserves than for active duty members. As mentioned earlier in the study, National Guard and Reserve personnel are unique with regard to their active duty counterparts (with some exceptions) in that they usually train one week-end per month and work in a civilian position the remainder of the time. Many are not located on or near a military base that offers resources and support facilities, and therefore do not have the same level of access to resources that are provided to active duty members (Friedman, 2004; Friedman 2005 as cited in Friedman, 2006).

A report conducted by the Department of Defense Task Force on Mental Health indicated that access to care was difficult for a considerable number of veterans. In fact, approximately one third of members of the National Guard as well as Reserves reported that they had to utilize civilian providers as they did not live close enough to military

treatment facilities (Department of Defense, 2007). Given that research seems to indicate higher rates of PTSD and depression for returning National Guard/Reserve personnel (Friedman, 2004; Friedman 2005 as cited in Friedman, 2006) and an increased suicide rate of fifty-five percent in 2010 (SAMHSA, 2011), limited access to mental health care could be detrimental for this population. In the current study, 75 percent of the National Guard members and 78.9 percent of the Reserve members reported not seeking mental health care, which were the highest percentages of all the active duty status demographic categories (See Table 5). The low rate of seeking mental health care may speak to the issue of limited access for this population, or stigma in help seeking (or both). Future research is needed to investigate the effects of combat deployments and any barriers to help seeking such as access to mental health care for National Guard and Reserve personnel. As the responses indicate, access issues may be less of a problem for some veterans, yet remains a problem for others.

Barriers to Seeking Mental Health Care

Stigma as a role in seeking mental health care has long been an issue for military members and remains a challenge for the DOD today. Veterans in the current study responded to this issue and the fear of career suicide as *remaining a problem or becoming less of a problem*. The difference regarding how veterans responded to this issue may be due to the demographic differences among the study population. For example, stigma in seeking mental health care may be more prominent for active duty or National Guard/Reserve members who may be more concerned with the impact on their career versus veterans who are at retirement age (i.e., Vietnam veterans) and may be ready to seek treatment. For instance, a recent article (Dingfelder, 2009) suggested that military

members (Navy personnel, were referenced in the article) may be concerned for their careers, their security clearances and confidentiality (i.e. fear that information will get back to their supervisors, etc.) if they seek mental health care. Stigma has been the focus of research in recent years and the military has begun to take steps to change the long standing culture through education and policy changes that help to facilitate seeking mental health care when needed. For instance, Dingfelder (2009) reported that the Defense Department modified the security clearance questionnaire so that military members seeking mental health care for marital or combat-related issues may keep that information confidential; it is no longer required to be reported (Dingfelder, 2009). Defense Department anti-stigma campaigns include military member's testimonials regarding their experiences seeking mental health care (Dingfelder, 2009). As mentioned earlier, demographic differences may have influenced the responses to this issue. It is also possible that some military members may be influenced by the recent anti-stigma campaigns. With that said; it may take some time and perhaps some evidence (i.e., from other military member's testimonials) that seeking mental health care will not be a detriment to a military member's career.

Issues Remaining a Problem in Five Years

Challenges in this five year forecasting category were more likely to be endorsed as remaining a problem in five years. Topic patterns were demonstrated in five sub-categories: Access to Seeking Mental Health Care or Available Resources, Barriers to Seeking Mental Health Care, Deployment Issues, Impact of Combat Exposure and Impact on family/Finances/Resources. What is important to note is that twenty-four out

of the thirty-nine significant challenges were endorsed as remaining a problem. This forecasting is consistent with the previous study (Tormey, 2008) in which a panel of experts identified these issues as being current challenges of veterans.

Access to Mental Health Care or Available Resources

The challenges in this category highlight concerns regarding access to timely and effective screenings designed to identify and treat mental health issues (including PTSD) and minimize long-term health challenges; provide knowledge of referral and follow-up processes for separated veterans with delayed onset of PTSD (or other combat-related health issues); access to an adequate number of psychologists while deployed to a combat zone; and overall preparedness of the mental health community to treat combat veterans, nationwide.

Challenges regarding access to mental health care or resources have been a reoccurring theme throughout this study and while many improvements have been made to address the unique needs of veterans, there are still some areas in need of improvement. For example, Williamson and Mulhall (2009), report gaps that exist with regard to screenings that are utilized to identify and treat mental health issues in military members that may be at risk. The authors stated that although evaluations were being conducted, the problem was that the mental health evaluation process did not include a personal interview with a mental health professional due to a shortage in trained mental health staff.

According to Williamson and Mulhall (2009), pre and post deployment health forms are filled out by military members in order to screen for any existing mental health

issues. One of the complications noted by the authors is that surveys of redeploying military personnel indicated that twenty to forty percent were still experiencing symptoms from previous deployments (i.e., previous concussions, sleep disturbance, headaches, memory difficulties and depression) , (Singer, 2008 as cited in Williamson and Mulhall, 2009).

Screening improvements may be forthcoming. For example, a recent study conducted by Army medical experts (Warner, Appenzeller, Parker, Warner, & Hoge, 2011) investigated a pre-deployment method of screening for mental health issues and found a relationship between the screenings and decreased mental health issues as well as a decrease in suicidal thoughts. In addition, fewer evacuations were needed for the purpose of treating mental health issues out of Iraq.

Increasing the number of mental health professionals to deployed locations may also help to increase access and quality of care. In a recent article (Dingfelder, 2009); the author reported that the person she interviewed was the only psychologist assigned to an aircraft carrier (carrying approximately 8000 people) making access difficult. Research suggests that steps are being taken to address this issue. For instance, Pueschel (2012) reported that in an effort to make mental health resources more accessible to deployed personnel, the Department of Defense (DOD) deployed mental health teams to Forward Operating Bases (FOB's). The programs identified as combat and operational stress control (COSC) provide mental health services and psycho-education (Pueschel, 2012).

Once a military member has separated, the challenge may be connecting to resources needed for combat-related issues. The Department of Veterans Affairs (VA) provides outreach programs designed to increase access, and connect with veterans prior

to discharge (or to connect them with appropriate resources) if delayed onset/reactions to combat should occur (Department of Veterans Affairs, 2011c). Such programs provide a smooth transition, offering military members/veterans knowledge and information regarding viable resources once they are separated. This may be particularly important for National Guard and Reserve personnel who may not have access to a military facility following their deployments. Future research may investigate how effective these transitional programs are for National Guard and Reserve personnel versus active duty personnel.

Barriers to Seeking Mental Health Care

The issues in this category underscore the prevalence of stigma which has been endorsed as remaining a problem. Some of the barriers identified that may prevent seeking mental health care were fear of being labeled, career suicide, consequences for reporting substance abuse or suicidal thoughts or gestures, anonymous mental health care, and the military culture regarding seeking mental health care. Given the pervasiveness of this issue and the long standing history of stigma in military culture, the DOD has taken steps to address it (Dingfelder, 2009). Examples include: anti-stigma campaigns, testimonials regarding mental health issues and recovery from military members, including high ranking officers (Dingfelder, 2009). Future studies may evaluate the effectiveness of the campaigns and programs developed to change the culture of stigma in the military.

Deployment Issues

Repeated deployments to a combat zone have been a common occurrence since the beginning of the Iraq war. Issues highlighted by participants include follow up

measures that monitor health and well-being of those who deploy or re-deploy, and the re-deployment of members diagnosed with a combat-related mental health disorder. A major gap or component of these issues goes back to screening for and monitoring the mental health of military members, particularly surrounding deployments. As mentioned earlier, research indicates that challenges with previous screening processes have resulted in some veterans re-deploying with symptoms from previous deployments (Williamson and Mulhall, 2009). Again, it is important to note that improved screening processes have been developed and current research indicates promising outcomes (Warner, Appenzeller, Parker, Warner, & Hoge, 2011). Differences in veteran's responses to this issue may be due to varying deployment experiences and whether they sought mental health care.

Impact of Combat Exposure

Combat exposure can affect military members in many different ways. Veterans in the CP group indicated that some military member's job performance may be affected by their combat experiences. The U.S. Army Research Institute of Environmental Medicine (2009) found that stress induced by one's work environment may influence job performance. Stressors may include environmental temperatures (i.e. extreme cold or heat), tiredness or exhaustion, issues with altitude and the stresses of combat itself (The U.S. Army Research Institute of Environmental Medicine, 2009).

Other changes may occur following a combat deployment that may also impact job performance. For example, Vasterling, Proctor, Amoroso, Kane, Heeren, & White (2006) assessed pre and post deployment neurological functioning of military personnel deployed to Iraq and Afghanistan. One of the findings included a decline in performance

tasks that required, “sustained attention, verbal learning, and visual-spatial memory” (p. 519). Ramifications of impaired job performance can be critical, particularly if the military member is in a combat situation. Previously mentioned screening improvements may provide early interventions. Future studies may investigate the impact of the operations tempo and repeated deployments may have on level of job performance.

Impact on Family/Finances/Resources

While combat exposure undoubtedly impacts military members in various ways, families are affected as well. Veterans in the CP group found a range of issues that were endorsed as remaining a problem such as; resources needed for families of military members identified as having substance abuse problems; long-term impact of TBI’s on member and family; risk of family violence following combat-related deployments and knowledge of referral processes to access appropriate care to meet varying needs (including vocational opportunities for returning military members).

Lessons learned from past wars tell us that substance abuse may be a form of self-medication or relief for those suffering from PTSD, depression, or other combat-related challenges. A recent report conducted by The National Institute on Drug Abuse (2011) found increased rates of substance abuse in military members which can affect families as well. Substance abuse often leads to strained relationships, abuse (in some cases) or even violent behaviors. In fact, the risk of family violence among combat veterans has become a recent area of focus, particularly in those who suffer from PTSD. Teten, et al., (2009), conducted a study that investigated partner aggression in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) veterans with Post Traumatic Stress Disorder (PTSD), OEF/OIF veterans without PTSD, and Vietnam veterans with PTSD.

Following group comparisons, findings indicated that the chances of OEF/OIF (male) veterans with PTSD being aggressive with their (female) partners were higher than the remaining study groups. In fact, the statistics indicated they were 1.9 to 3.1 more likely to do so). This group also had a higher chance (approximately 1.6 to 6 times) of reporting aggressive behavior from a female partner than the other two groups (Teten, et al., 2009). Further research is needed to address the issue of post combat aggression in order to develop intervention and prevention programs.

Treatment for military families is an important component of healing the veteran and the family as a whole. While some family services are available through Veterans Affairs (VA), the Department of Defense, various government agencies and non-profit organizations, access to family treatment still may be a challenge due to budget limitations. Fairweather (2006) reported that some veteran centers have offered family services; however, due to an influx in demand, services had to be reduced. Fairweather (2006) suggested that the VA, the Department of Defense and the National Guard and Reserves may be able to increase family resources by considering taking steps to make community based organizations available. Other resources may be available following the development of a government program to assist military families. In 2010, President Obama signed a government-wide study, “Strengthening our Military Families” (National Security Staff, 2011) that outlines the implementation of programs designed to improve support of military families through federal, state and local community levels. The four initiatives were defined as the following (National Security Staff, 2011):

National Security Staff (2011), the government-wide effort will:

1. Enhance the well-being and psychological health of the military family,

- 1.1. By increasing behavioral health care services through prevention-based alternatives and integrating community-based services;
 - 1.2. By building awareness among military families and communities that psychological fitness is as important as physical fitness;
 - 1.3. By protecting military members and families from unfair financial practices and helping families enhance their financial readiness;
 - 1.4. By eliminating homelessness and promoting home security among Veterans and military families;
 - 1.5. By ensuring availability of critical substance abuse prevention, treatment, and recovery services for Veterans and military families; and
 - 1.6. By making our court systems more responsive to the unique needs of Veterans and families.
2. Ensure excellence in military children's education and their development,
 - 2.1. By improving the quality of the educational experience;
 - 2.2. By reducing negative impacts of frequent relocations and absences; and
 - 2.3. By encouraging the healthy development of military children.
 3. Develop career and educational opportunities for military spouses,
 - 3.1. By increasing opportunities for Federal careers;
 - 3.2. By increasing opportunities for private-sector careers;
 - 3.3. By increasing access to educational advancement;
 - 3.4. By reducing barriers to employment and services due to different State policies and standards; and
 - 3.5. By protecting the rights of service members and families.
 4. Increase child care availability and quality for the Armed Forces,
 - 4.1. By enhancing child care resources within the Department of Defense and the Coast Guar. (p.2).

The initiatives in the “Strengthening our Military Families” program begin to address some of the unique needs of military families that have been identified (in the previous study, Tormey, 2008) and endorsed in the present study, such as, psychological, financial, educational, and occupational challenges. Future studies may investigate the effectiveness of the initiatives over time and the level of change that takes place as a

result. Although the issues in this forecasting category were endorsed as remaining a problem, new and improved programs and initiatives may change this in the near future.

Sought Mental Health Care (SMHC) Group

Differences between those who sought mental health care and those who did not were demonstrated by patterns in the responses. The results indicate the veteran's responses to the issues were influenced by whether or not they sought mental health care. Overall, veterans who sought mental health care were more likely to endorse the identified issues as remaining a problem or becoming worse in five years. Veterans who did not seek mental health care were more likely to endorse issues as remaining a problem or becoming less of a problem in five years (with some exceptions noted in the results section).

The forecasting categories below are followed by a (Yes) or (No), indicating whether the issues were endorsed by those who sought mental health care or those who did not. Given that the SMHC group forecasted the same 46 issues as the CP group, there is some overlap of some issues discussed earlier in the study. However, a brief recap offers clarity to the differences highlighted in this section.

Issues Becoming Worse of a Problem or Remaining a Problem (Yes), or Becoming Less of a Problem (No)

Patterns in the data for this group of issues indicate that veterans who sought mental health care were more likely to endorse the following issues as either *becoming worse* or *remaining a problem* in five years. Veterans who did not seek mental health

care were more likely to endorse the issues as *becoming less of a problem* in five years (with exceptions noted in the results section). It is important to keep in mind that the patterns in the raw data (as noted in the results section) are also meaningful to consider as they may indicate that the views of the veterans who did not seek mental care may lean more toward these issues *remaining a problem* (similar to those who sought mental health care) versus *becoming less of a problem*. However, although meaningful, interpretation of this result/pattern is limited and no conclusions can be drawn. Future research may strengthen the results in this area given that a larger sample size may show more significance in the distribution patterns. Current challenges and new developments regarding the issues identified in this forecasting category are discussed below.

Given that the issues below are among the same 46 issues addressed in the Combined Group earlier in the study, there is some overlap in the discussion of the issues presented in this section. However, a brief recap offers clarity to the differences highlighted in this section. The issues in this forecasting category fell into the following sub-categories: 1) *Access to Mental Health Care or Available Resources*: a) Adequate number of psychologists deployed to a combat zone and b) Process that provides a seamless transition for the military member needing assistance following combat-related challenges and c) Preventive measures to minimize long term health problems, d) Knowledge of referral processes, procedures and access to appropriate care for those separated from the military, e) Educational programs available to provide awareness of post combat challenges and coping Skills, f) Preventive measures in place to address or minimize PTSD symptoms, and g) Immediate care provided for members with Traumatic Brain Injuries (TBI's); 2) *Barriers to Mental Health Care*: a) Stigma as a role in seeking

mental health assistance within the military, b) Fear of being labeled when seeking mental health assistance and c) Increased risk of career suicide following mental health assistance; 3) *Deployment Issues*: a) Follow-up measures to monitor the health and well-being of those who deploy and re-deploy and b) Re-deployment of members diagnosed with a mental health combat-related disorder; 4) *Impact on Family/Finances/Resources*: a) Immediate and appropriate integration of education and treatment designed to maximize care and ensure smooth transition for the returning member and their family, b) Available resources for family members when military member has been identified as having a substance abuse problem and c) Vocational opportunities for returning military members.

Access to Mental Health Care or Available Resources

Knowledge of processes and procedures regarding access to mental health care once separated from the military are issues that have re-surfaced through-out the current study. Bridging the gap for separated military members is beginning to occur prior to veterans' release from the military. For instance, The Department of Veterans Affairs (VA) offers programs designed to connect with and treat veterans prior to discharge (Department of Veterans Affairs, 2011c). Such programs also offer military members/veterans knowledge and information regarding resources available to them (including National Guard and Reserve Personnel). This is important because access to mental health care may be more of a challenge for some military members and veterans than for others. For example, some returning National Guard and Reserve personnel may not have access to a base or mental health facility (Department of Defense, 2007). However, as previously mentioned, a recent change expanded care through the

Department of Veterans' Affairs (VA) for combat-veterans. Therefore, National Guard and Reserve personnel who live near a VA hospital or clinic may utilize VA health care services for up to five years following discharge from the service (at no expense) if their condition is combat-related (from the Iraq/Afghanistan war), (Department of Veterans Affairs, 2011b). This change may help to alleviate the problem of access to mental health care for some veterans.

Access to mental health care may also be a challenge for deployed members. Challenges regarding limited access to mental health care professionals and effective screening processes for mental health issues during deployments have come to light in the recent past (Dingfelder, 2009). However, current research suggests some improvements in these areas. Warner, Appenzeller, Parker, Warner, & Hoge, (2011), investigated an improved screening process and found it significantly reduced behavioral problems and suicidal thoughts. Along the same lines, screening for TBI's during deployments is also important for affected military members. Given that early detection of TBI's is critical to effective treatment and early intervention, the Defense and Veterans Brain Injury Center (DVBIC) developed the Military Acute Concussion Evaluation (MACE) in 2006, which is a screening tool that can be used in theatre to "measure four cognitive domains: concentration, immediate memory, memory recall and orientation" (Defense and Veterans and Brain Injury Center, 2012, para. 3). The information provided by the MACE along with additional clinical information will assist the provider in taking the next step to providing appropriate care for the military member, including evacuation to another facility if needed (Defense and Veterans and Brain Injury Center, 2012).

Due to the fact that TBI's are not always easily detectible, active duty members are also screened for symptoms of concussions and TBI's through post-deployment health assessments (PDHA), (Defense and Veterans and Brain Injury Center, 2012). Veterans are also screened for concussions/TBI's using a tracking system when they enroll or are placed in the Department of Veterans' Affairs system (Defense and Veterans and Brain Injury Center, 2012). The various programs currently in place may increase the chances of early detection and treatment for veterans whether they are at a deployed location, on active duty status or veteran receiving treatment from the VA.

The Department of Defense (DOD) has also begun to deploy mental health care teams to Forward Operating Bases (FOB's) with the purpose of increasing access to mental health care as well as providing screening and education to the troops (Pueschel, 2012).

Other resources such as, "*Military One Source*" (Military One Source, 2012) provides up to 12 confidential counseling sessions (per issue) at no expense to the military member. Military One Source will also refer military members to other agencies or appropriate resources if they are unable to meet the member's needs. The counseling can take place face to face if available, over the telephone, or on-line. This resource is also available to family members.

Although research suggests there are still some challenges in the aforementioned areas, it appears there are changes and improvements happening. A time of transition may be needed before changes are inherently known, which may offer some explanation as to differences in the veteran's forecasting views.

Barriers to Mental Health Care

Increased risk of career suicide when seeking mental health care and fear of being labeled, are two of the areas regarding stigma that remain problematic in the military. In an early study of Iraq and Afghanistan veterans (Army soldiers and Marines), Hodge, et al., (2004) found that among those who met criteria for mental health disorders, 50 percent reported that seeking mental health care would have a negative impact on their career. In addition, 65 percent reported they would be perceived as weak. Stigma, with regard to help seeking in the military continues to be a concern as it is critical to the overall mental health and well-being of our nation's military forces. Along with the present study, issues such as increased rates of substance abuse, suicide and PTSD have been a major focus of research since the onset of the Iraq war. Being willing to seek help without fear is imperative for early intervention and preventing or minimizing long-term health issues. To that end, the Department of Defense (DOD) is taking major steps to change the culture regarding stigma in the military by launching anti-stigma campaigns, modifying security clearance questionnaires and presenting public testimonials of successful treatment and in-tact careers to military members (Dingfelder, 2009). Future studies may offer insight as to military member's experience leading to help seeking, how they battled stigma and their experiences afterward.

Deployment Issues

Challenges regarding deployment issues in this sub-category deal with follow-up measures to monitor health and well-being of those who deploy, and the re-deployment of members diagnosed with a combat-related disorder. Challenges regarding monitoring and screening the mental health of deployed troops (such as re-deployment with

symptoms from previous deployments) have been addressed in recent literature (Williamson and Mulhall, 2009). While screening processes and limited staffing has been reported as problematic in this area (Dingfelder, 2009), new studies indicate improved screenings (Warner, Appenzeller, Parker, Warner, & Hoge, 2011) and increased number of mental health professionals to deployed locations (Pueschel, 2012) may improve the overall health and well-being of deployed personnel. Differences in veteran's responses may be due to varying deployment experiences and whether they sought mental health care. Future studies may investigate the effectiveness of these changes regarding early detection and intervention pre/during/post deployment.

Impact on Family/Finances/Resources

The needs of military families can be unique and varied. For example, areas highlighted in this sub-category deal with both treatment for families when a military member has been identified as having a substance abuse problem and financial challenges such as available vocational opportunities for returning veterans. Throughout the Iraq war, a strong focus has been on the care and treatment of our nation's military members and veterans. However, research has begun to address the affects of combat deployments on families as well. Access to resources has been challenging according to Fairweather (2006), who reported that due to budget constraints, services have been more limited for some veterans.

Many of the issues and challenges military families experience can have serious consequences on the family dynamic. As mentioned earlier in the study, substance abuse is on the rise among military members (The National Institute on Drug Abuse, 2011) and of course, carries serious health risks for the entire family.

Financial issues and job opportunities can also be a challenge for returning veterans. Unemployment is an issue that has affected many American citizens and military veterans have also been challenged in this area. According to the Bureau of Labor Statistics, the unemployment rate of Iraq and Afghanistan veterans has increased over the last few years and recent statistics show the unemployment rate of Iraq and Afghanistan-era veterans was 14.7 percent in 2010 (Bureau of Labor, 2010). Programs that address vocational opportunities for disabled veterans are available; some examples include (but are not limited to): Vocational Rehabilitation (VR) through the Department of Veterans Affairs (VA), Preferences for Federal Employment through the federal government, Employer Support of the Guard and Reserve (ESGR) through the Department of Defense, and the Veterans Employment and Training Service (VETS) through the U.S. Department of Labor (Freema-Woolpert, 2012, p. 1-2).

Again, the needs of military families are varied and since the onset of the Iraq war, some of these needs are immediate. Caring for military families as a priority was recently addressed in a government study, “Strengthening our Military Families” (National Security Staff, 2011). The study outlined new programs to be implemented that are designed to improve support of military families on federal, state and local community levels. Among the many resources becoming available for families includes the issues identified in this sub-category; such as behavioral health resources (resources available for families dealing with the substance abuse of a military member) and vocational opportunities.

While differences in responses to the aforementioned issues may have been influenced by seeking mental health care (or not seeking mental health care), veterans in

the current study may have also been influenced by varying post combat experiences. Depending on the nature of the issues experienced by military families, access to resources may or may not have been available. Variables such as active duty status, National Guard or Reserve status; access to a base, VA or Vet Center, may have made a difference in the level of access to resources.

Issues Becoming Worse of a Problem (Yes), or Remaining a Problem or Becoming Less of a Problem (No)

Veterans who sought mental health care were more likely to endorse the following issues as becoming worse of a problem in five years. Veterans who did not seek mental health care were more likely to endorse the following issues as *remaining a problem* or *becoming less of a problem* in five years. The overall results indicate there is a relationship between seeking mental health care (or not seeking mental health care) and responses to the issues in this forecasting category. It is also important to consider patterns from the raw data given the close range in the veteran's responses as they may indicate a tendency toward these issues becoming more of a problem rather than less of a problem in future. However, while these patterns are meaningful, interpretation of the raw data is very limited and conclusions cannot be drawn here. Future studies with larger sample sizes may strengthen results and offer more definitive insight as to these differences in distribution.

As the issues below are among the same 46 issues addressed in the Combined Group earlier in the study, there is some overlap in the issues discussed in this section. However, a brief recap offers clarity to the differences highlighted in this section.

The forecasting issues in this forecasting category fell into four sub-groups: 1) *Access to Mental Health Care or Available Resources*: a) Follow-up process available for delayed onset of PTSD or other combat-related issues, b) Follow-up procedures with separated members with delayed (combat-related) reactions, c) The need for pre/post deployment substance abuse assessments, d) Timely and effective screening for military members with possible combat related challenges such as Post Traumatic Stress Disorder (PTSD), e) Pre/post combat evaluations conducted for suicidal thoughts or intent , f) Disability ratings as a role in the level of care provided to military veterans and accessibility to treatment, g) Budget constraints impacting access to treatment and h) Overall preparedness of the mental health community to treat combat veterans, nationwide. 2) *Barriers to Mental Health Care*: a) Preservation of military career if unable to deploy due to combat related issues, b) Cost/consequences for member identified as having a suicide abuse problem post combat deployment, c) Cost/consequences for military members who report suicidal thoughts, gestures or attempts d) Trusting environment within mental health care system for veterans seeking treatment and e) Culture within the military regarding mental health assistance for military members. 3) *Impact of Combat Exposure*: a) Impact of combat exposure on mental health and well-being, b) Member's job performance affected as a result of combat exposure, c) Risk of family violence during re-integration following combat deployments, d) Impact of multiple combat deployments on rate of substance abuse, e) Increased suicide rate of military members and f) The impact on long-term health care for those not treated early. 4) *Impact on Family/Finances/Resources*: a) Long term impact of Traumatic Brain Injuries on military

member and family, b) Financial difficulties for military members and family, c) Family stability of affected military members, d) Increased risk of homeless for combat veterans.

Access to Mental Health Care and Available Resources

Challenges regarding pre and post deployment screening of mental health issues (such as substance abuse, suicide or PTSD) are consistent with current literature. As mentioned earlier in the study (i.e., deployment issues), Williamson and Mulhall (2009) found gaps regarding pre/post deployment screening for mental health issues, due in part to staff shortages and aspects of the screening procedures. Pre and post mental health screenings are critical to early intervention, particularly given the increased rates of substance abuse (The National Institute on Drug Abuse (2011), PTSD (Hoge, et al., 2004) and suicide (SAMHSA, 2011), in military members. Current research suggests screening for mental health issues and TBI's is improving for military members and veterans. A recent study reported significant benefits from newly improved screenings for mental health issues (Warner, Appenzeller, Parker, Warner, & Hoge, 2011). In addition, a 2008 report, "Congressional addressees to the Government Accountability Office" (GAO), reported that the Department of Defense implemented screening for mild traumatic brain injuries (TBI) both pre and post deployments. The TBI screening was added to the Post Deployment Health Assessment (PDHA) given to returnees. Health care providers who conduct the PDHA would then make any appropriate referrals which are then tracked to ensure the military member is seen at the follow-up appointments (U.S. Government Accountability Office, 2008). The report also identified specific challenges in the process of tracking the referrals for National Guard and Reserve personnel. The report indicated that due to many National Guard and Reserve personnel

utilizing civilian care, their units may not know if their members have been seen by the provider referred unless the member offers that information. The report addresses the issue of stigma and the fact that the member may not be willing to volunteer the information (U.S. Government Accountability Office, 2008).

Access to screening for mental health issues is very important, as is access to care in general, which was another issue in this forecasting category. Studies indicate that demands on the mental health community and budget constraints may impact access to resources or level of care available for some veterans (Fairweather, 2006). Taking steps to make services available within community-based organizations may offer additional support and increase access (Fairweather, 2006). Increased budgets are also needed to maintain a level of care for the increasing number of veterans needing assistance. An upcoming proposal for an increase in the VA's budget for 2013 may help to increase resources (Congressional Budget Office, 2010).

The issues in this sub-category are consistent with current literature in both challenges regarding access to care and improvements being implemented into mental health screenings for military personnel who deploy. Veteran responses may reflect both their experiences in seeking mental health care (or not seeking mental health care) and how the challenges and/or improvements made a difference in their own experiences with these processes. Future research may investigate the effectiveness of the new screening improvements discussed in this study. In addition, future studies are needed to follow-up on access to mental health care, particularly for National Guard and Reserve members who may not have access to military or VA facilities.

Barriers to Mental Health Care

Among the many challenges discussed in this study, stigma with regard to seeking mental health care may be one of the most difficult to overcome. Feeling safe enough to seek help or report symptoms (such as suicidal thoughts) and not fear the consequences of losing one's career or the faith of others in doing one's job may take some evidence to that end. In 2009, the "Real Warriors Campaign" began a media campaign to present stories of service members who sought mental health care, shared how it made a difference in their life and demonstrated that their careers remained intact (U.S. Medicine, 2010). Other programs; such as the Buddy-to-Buddy program, utilized by the Michigan Army National Guard, trains veterans to provide support to other veterans. The program involves a system in which each buddy looks out for the other by remaining alert to any possible problems or symptoms, assisting with help-seeking when needed and offering support through various challenges. For instance, a buddy may help a fellow soldier with reintegration following a tour in Iraq, which might include physical and/or emotional challenges (U.S. Medicine, 2010).

Veteran's responses in the current study were found to be influenced by whether or not they sought mental health care. Studies have indicated that stigma is an issue or deterrent in seeking mental health care. Future research may explore if veterans who did not seek mental health care (and endorsed stigma as remaining a problem) needed to but did not seek help due to stigma. On the other hand, research may also investigate the experiences of veterans who endorsed stigma as becoming worse of a problem and sought mental health care regardless of this issue. This may help to identify what it took to help the member who needed mental health care assistance step forward and do so.

Impact of Combat Exposure

The impact of combat exposure can affect the health and well-being of military members and their families. Studies indicate there is an increased risk of PTSD with combat exposure (Hoge, et al., 2004). According to Williamson and Mulhall (2009), “the most common mental health issue for new veterans is PTSD” (p. 3), which in and of itself can impact the health and well-being of military members and their families. While many studies have been conducted regarding combat-related PTSD, Hoge, et al., (2007) pointed out in a recent study that the physical association with PTSD has not been widely investigated. Therefore, they studied a group of 2,863 soldiers one year after a combat tour in Iraq. They found that 16.6 percent of the participants met criteria for PTSD. In addition they found the following physical symptoms to be significantly associated with PTSD:

1) The participant’s general health was rated lower, 2) They had a higher level of sick call visits and absenteeism from work, 3) They had a higher level of physical symptoms and 4) They had “high somatic symptom severity” (Hoge, et al., (2007, p. 150). The authors suggested that PTSD is associated with various physical health problems and that combat veterans with PTSD should be evaluated for associated health problems, and those with serious physical health symptoms should be evaluated for PTSD. Other health risks that may be associated with PTSD include an increased risk of partner aggression, particularly in Iraq and Afghanistan veterans with PTSD (Teten, et al., (2009).

Combat exposure may also impact job performance. The U.S. Army Research Institute of Environmental Medicine (2009) suggests that environmental stressors such as combat stress can have adverse affects on job performance. Similarly, while investigating

neurological functioning in Iraq and Afghanistan veterans, Vasterling, et al., (2006) found a decline in performance tasks that required certain skills such as” sustained attention, visual-spatial memory and verbal learning.” Symptoms leading to impaired job performance can be dangerous, particularly if it occurs in a combat environment (Vasterling, et al., 2006, p. 519)

Even when in perfect health, the combat environment can be an overwhelming experience and may increase risk of substance abuse for combat veterans (National Institute on Drug Abuse (2011), particularly in those diagnosed with PTSD (National Center for PTSD, 2010). Substance abuse can also lead to increased risk of suicide (National Institute on Drug Abuse (2011). The aforementioned issues continue to be addressed in research as concern for returning veterans, particularly in these areas (increased rated of PTSD, substance abuse and suicide) continues to grow. Differences in responses to these issues by current study veterans may indicate the varied experiences and whether those experiences led them to seek mental health care or not. Future studies may also add insight as to the role of internal and/or external influences.

Impact on Family/Finances/Resources

Repeated deployments to a combat zone can have an impact on the family dynamic and overall stability. Sayers, Farrow, Ross, & Oslin (2009), found that integration back into the family can be challenging for returning veterans; such as strained relationships or feeling fear from their children and spouses (Sayers, Farrow, Ross, & Oslin, 2009). If a veteran sustains a physical injury such as a TBI, personality or behavioral changes (depending on the severity of the injury) can also impact the family dynamic (Center for the Study of Traumatic Stress, 2012). The Department of Defense

and the Defense and Veteran's Brain Injury Center estimate that “22 percent of all combat casualties from these conflicts (in Iraq and Afghanistan) are brain injuries, compared to 12 percent of Vietnam related combat casualties. Sixty-eight percent of soldiers who have other blast injuries may also have traumatic brain injuries” (Summerall, 2011, para. 1). Few studies have been conducted with regard to the impact of TBI’s on military families however, certain challenges may be expected. For example, depending upon the severity of the injury, personality or behavioral changes can occur which can be distressing or confusing to family members (Center for the Study of Traumatic Stress, 2012). In addition, roles and the family dynamic may change during recovery as well as the financial situation if the affected member is unable to work (Brainline Military, 2011).

Financial issues can also shake family stability for combat veterans, such as those needing to rely on food stamps to feed their families. According to Mitchell (2009), more than 31 million food stamps were used at commissaries nationwide. In more severe cases, homelessness can occur. In 2011, Substance Abuse and Mental Health Services Administration (SAMHSA, 2011) reported that nearly 76, 000 veterans were homeless in 2009.

Veteran’s responses regarding these issues were found to be influenced by whether or not they sought mental health care. Post combat deployment familial experiences may have also impacted veteran’s views in this area. Future studies may further investigate family stability of current returning veterans.

Level of Combat Exposure (CE) Group

The Level of Combat Exposure (CE) group reported their forecasting views regarding the future direction of 46 challenges which resulted in the two significant issues discussed below.

Q35: Disability ratings as a role in the level of care given to the military member and accessibility to treatment

The results for the CE group indicate that the level of combat exposure had an influence on the veteran's responses to this issue. With the exception of the group of veterans who experienced occasional combat exposure (who were more likely to endorse this issue as becoming less of a problem), data patterns suggest veterans view this issue as continuing to be a problem in five years (whether becoming worse or remaining the same). Given the number of veterans with occasional combat exposure who also endorsed the issue as *remaining a problem or becoming worse of a problem* (but did not meet the expected values), it is important to recognize this data as meaningful. It may indicate a tendency to lean toward this issue as being a problem in the future, which is consistent with the majority of veterans in the Combat Exposure (CE) group. However, interpretation is very limited with the raw data and therefore conclusions cannot be drawn. The results may have shown a clearer pattern or have been more consistent across categories, had the sample size been larger. Future research may offer more insight and stronger results given a larger sample size.

Given that many veterans in this group were more likely to endorse this issue as a future problem is not surprising. Disability as a role in the level of care given to a military veteran and accessibility to treatment can be of great importance to veterans and the

results of this study indicate that is the case here. As mentioned earlier, when a veteran enrolls with the VA, they are placed in one of eight priority levels. What this means is, if the demand for VA services increases and resources become more limited, the number of priority groups that are offered services may need to be decreased (Department of Veterans Affairs, 2011d). Therefore, the level of service connected disability that a veteran has may have an impact on their eligibility to enroll for care with the VA depending on the current demands on the system and available resources. However, as mentioned earlier the VA initiated a policy that currently offers access to Iraq and Afghanistan veterans (to include activated National Guard and Reserve personnel). These combat veterans may, without cost, utilize VA health care services for up to five years following discharge (or date of release) from the service if their condition is combat-related (from the Iraq/Afghanistan war), (Department of Veterans Affairs, 2011b). Therefore, while this may be of concern to veterans who have been injured in some way during a combat deployment, this new policy may offer some relief. Once the five year window is closed, the VA will re-evaluate the veteran's status for a new enrollment (Department of Veterans Affairs, 2011b).

Q2 Fear of being labeled when seeking mental health care

Veterans were more likely to endorse this issue as remaining a problem. The data indicates there is a relationship between the level of combat exposure and fear of being labeled when seeking mental health care. Stigma in help seeking is certainly a reoccurring theme in this study and in current literature, which indicates the pervasiveness of it and how deeply engrained stigma in help seeking is within the military culture. The Department of Defense has made great efforts in recent years to

make a change regarding stigma in the military (Dingfelder, 2009). Future studies may investigate the effectiveness of the anti-stigma campaigns in helping military members to feel free to seek help without fear of negative consequences.

Seeking Mental Health Care Vs Not Seeking Mental Health Care and the Level of Combat Exposure or Number of Deployments

The Analysis of Covariance (ANCOVA) found that the level of combat exposure (after controlling for the number of deployments) had an influence on seeking mental health care. However, the number of deployments (after controlling for level of combat exposure) was not found to have an influence on seeking mental health care. Given that some of the assumptions for the ANCOVA were not met, result limitations should be considered upon review.

The results of the ANCOVA in the present study are consistent with current research. Studies indicate that the level of combat exposure appears to increase risk for certain mental health issues such as depression and PTSD and may increase the likelihood of seeking mental health care. Hoge, et al., (2004) conducted a study of 1709 Army soldiers and Marines who had deployed to either Iraq or Afghanistan. They surveyed Iraq returnees, Afghanistan returnees and a group of Army soldiers and Marines prior to deploying. They found that the Army soldiers and Marines who were deployed to Iraq had a higher level of combat exposure and higher contact frequency with the enemy than those who were deployed to Afghanistan. They also reported that among the groups in the study, the Iraq returnees were also more likely to report having a mental health

problem (at that time), being interested in treatment and to utilize mental health care services (Hoge, et al., 2004).

In a similar study, Hoge, Auchterlonie & Milliken (2006) found returnees from Iraq reported mental health issues at a higher level than Afghanistan returnees. The authors' also indicated that the mental health issues that were reported following deployment were significantly associated with combat experiences.

Results from the present study also indicate that veterans sought mental health care as a result of their combat experiences (see Table 6), and the level of seeking mental health care increased with the level of combat exposure (see Table 7) which is consistent with the aforementioned study (Hoge, et al., 2004). It appears that higher rates of combat exposure may reduce stigma in seeking mental health care. There may also be a hierarchy of respect for combat exposure which may also influence or reduce stigma in help seeking. If this is the case, than veterans with a lower levels of combat exposure may need help in reducing stigma and possible long term health care issues.

Implications

We enter an unprecedented age in that military members are exposed to combat in a new way. Repeated combat exposure has impacted military members in ways not experienced before and with unique consequences. Therefore, while we look to lessons learned from past wars, it is imperative to continue exploration and investigation into the effects of repeated combat exposure as well as early and effective treatments. The present study offers a unique contribution as it provides a veteran's perspective regarding forty-six issues identified as current challenges for returning veterans from a cadre of mental

health care experts in the field. As the health of combat veterans continues to be a focus in the mental health care system today, this study provides a voice of 102 veterans and the opportunity to learn from their experiences. Few, if any, studies have addressed the number of issues discussed in the present research (46 in total). However, as noted through-out this study, many of the issues addressed here, and study results, are consistent with current research. For example: 1) Issues pertaining to access and barriers to mental health care (for veterans and their families), 2) The impact of repeated combat exposure on mental health and well-being, 3) Increased rates of substance abuse, suicide and PTSD, 4) Early detection and effective treatment of combat-related TBI's, and 5) Critical issues regarding the influence of stigma in help seeking.

The veterans in this study endorsed many current challenges as becoming worse/less of a problem and remaining the same in five years. Critical issues, such as increased rates of suicide, increased rates of substance use, limited access to mental health care for some veterans, homelessness and PTSD can have a profound influence on the lives of military members and their families; many issues that are not new to veterans. Therefore, a sense of urgency exists to address these challenges as a younger generation of combat veterans emerges with similar (and unique) issues that have affected a generation of veterans (i.e. Vietnam) before them. Variables such as, limited budgets and resources, long standing military cultural perspectives (i.e., stigma in seeking mental health care); the development of innovative processes and even new technologies (i.e. assessment and treatment of TBI's) likely play a role in moderating change and the timeliness of change.

What is clear is the growing awareness and momentum toward change for affected veterans (i.e., VA programs that address combat related PTSD, homelessness, disability benefits; and changing military views regarding the effects of combat on military members). Through advocacy for increased budgets, continued research and development of necessary programs/services/treatments, many of the challenges facing combat veterans can be influenced or changed. What changes will occur within the next five years is yet to be seen, however, the focus must remain constant, and change must continue to evolve in order to make a difference for our nation's veteran's.

Limitations

Some limitations exist regarding the sample for this study:

1. Veterans with Traumatic Brain Injuries (TBIs) were not included in the study as they may have required some assistance with the survey which would have compromised any confidentiality issues.
2. Like any self-report measure, the data has the potential to be skewed. "Self-selection bias may be a problem given that "some individuals may be more inclined than others to participate in on-line surveys" (Stanton, 1998, Thompson et al., 2003, Wittmer et al., 1999, as cited in Wright, 2005, para. 20). Secondly, Rosenbaum and Lidz (2007), suggested there may be limitations with on-line sampling which were considered for the current study. For example, on-line surveys are limited to populations that have access to computers and the internet, moderate computer skills and the ability to understand the survey/material independently. Limitations such as these can also be problematic when utilizing

mail out surveys. For example, there is no guarantee the intended participant is the one who completes the survey (Schmidt, 1997 as cited in Wright, 2005). In addition, there is no way to ensure that demographic data such as age, gender or education is accurate (Wright, 2005).

3. A larger and more diverse sample size may offer a higher level of insight into the challenges facing combat veterans.
4. The Chi-Square results may have some limitations given that all assumptions were not fully met. In nine of the forty-six issues, the expected count in one cell was less than five. An expected count of five or greater is preferred.
5. In order to minimize limitations, current study participants were selected from various sources. Although participants were solicited from various sources, several study demographics yielded unequal sample sizes which was a factor when selecting specific demographics to focus on. Some of the sample sizes utilized in analysis were fairly small and therefore follow up studies are recommended.
6. The questionnaire in the present study did not include an option for participants to report issues as, “not considered a problem”. In the previous study (Tormey, 2008) field experts identified specific issues considered to be current challenges for veterans. Therefore, the rationale for the present study was to determine the possible potency and trajectory of the identified issues in a five year period.
7. Given the current increased demands regarding service-connected disabilities, some veterans may have felt the need to over-emphasize the saliency of a particular issue with possible secondary gains being to increase services or

program availability. However, this does not necessarily mean the issue is not a problem for the veteran. While this may be seen as a limitation, the issues in this study have already been identified previously as problematic for veterans, and the veterans are still ranking which issues are of most concern. The information gained is worthwhile and of value to this study.

8. The following limitations with the ANCOVA should be considered when reviewing the results as all of the assumptions were not met. The range of the covariates (the number of deployments and the level of combat exposure) were limited and non-continuous, 2) With regard to the number of deployments; over one half of the population sample reported participating in one deployment and approximately one-third of the sample reported participating in two deployments. The number of participants who participated in more than two deployments dropped off dramatically which positively skewed the distribution. Finally, with regard to the level of combat exposure, the questionnaire offered four levels, however, a minimum of five levels or more is preferred.

Future Directions/Research:

As many of the issues identified in this study are consistent with current literature, there is some awareness of the challenges addressed here. Various recommendations surfaced both in the literature as well as within this study that may be utilized for future investigation or program development.

- 1) Future studies may investigate bridging the gap in both civilian and military health care systems in treating veterans with combat related issues.

- 2) Repeated combat exposure and long-term health effects may be correlated. Future studies will be needed to explore psychological/physical health connections and early interventions.
- 3) Considering technological advances in combat body protection utilized in the Iraq war, TBI's have become somewhat unique given that the combat veteran may not have survived bomb blasts in the past. The TBI's experienced today are not always easily detected or understood and symptoms may be delayed or vary, which can complicate or delay treatment. While there appears to be some advances made in this area, continued research and investigation of more effective ways to detect, screen for and treat TBI's may be needed.
- 4) Increased levels of substance abuse in the military is a major area of concern. Stigma with regard to seeking mental health care or rehabilitation services are also a factor, as military members may fear career suicide, or some type of disciplinary action. Future research designed to investigate and develop effective strategies directed toward prevention and early interventions are needed.
- 5) Future studies designed to evaluate the effectiveness of mental health and TBI screenings, pre/post deployment are needed to ensure early timely and effective intervention.
- 6) Future studies are needed to evaluate the level of preparedness within civilian community mental health care systems to assist in combat recovery. As the number of veterans that need assistance continues to grow, additional resources may be needed.

- 7) Research is needed to address unique challenges facing National Guard and Reserve Personnel, particularly regarding access to mental health care and other resources.
- 8) Research is needed to identify and address unique issues facing female veterans in combat zones, as well as the effects of combat exposure that may be different from their male counterparts.
- 9) Military families face unique situations, particularly when a family member is a combat veteran. Future studies may offer insight regarding the effects of combat exposure on military families and the availability of resources for them.
- 10) Suicide prevention programs certainly exist within the military. However, suicide continues to increase. Studies designed to investigate and develop effective strategies for prevention and early interventions are needed.
- 11) Future studies investigating the status of challenges identified in this study may continue to offer insight and change for affected veterans.
- 12) A future study may include the use of a three-way Chi-square statistical design, investigating, for example, the number of deployments and seeking mental health care. The data would be treated as non-continuous (categorical) variables. An open-ended survey may also offer more of a range of responses. The noted changes are designed to strengthen the data and overall outcome.

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Chapter 7

Appendix A

| Participant Survey |
|---|
| Experts have suggested the issues below are, were, or may become problems for |
| veterans who have been deployed to combat zones. Your knowledge as a veteran who |
| has served in a combat zone offers a unique perspective with regard to challenges faced |
| by many veterans who have served in this capacity. Therefore, your opinion, regardless |
| as to when or where you served is a valuable contribution to this study. Please indicate |
| your estimate of whether each issue is likely to remain the same, become more, or less of |
| a problem in five years. In five (5) years, the issues in the left hand column are likely to: |
| Become a worse problem, Remain a problem, Become less of a problem. |
| Questions: |
| 1. Stigma as a role in seeking mental health assistance within the military |
| 2. Fear of being labeled when seeking mental health assistance |
| 3. Increased risk of career suicide following mental health assistance |
| 4. Accessible mental health treatment for military members with combat exposure |
| 5. Adequate number of psychologists deployed to combat zones |
| 6. Availability of anonymous mental health care for military member |
| 7. Mental health treatment available for military members not assigned to a base (NG/R) |
| 8. Mental health “outreach” programs available to military members. |
| 9. Process that provides a seamless transition for the military member who needs mental |

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| Health assistance following combat related medical challenges |
| 10. Impact of repeated combat exposure on mental health and wellbeing |
| 11. Follow-up measures to monitor the health and well-being of those who deploy and redeploy |
| 12. Redeployment of members diagnosed with a mental health disorder associated with combat exposure |
| 13. Preservation of member's career if unable to redeploy to combat zone due to combat related issues |
| 14. Educational programs available to provide awareness of post combat challenges and Coping skills |
| 15. Preventive measures to minimize long-term health problems |
| 16. Long term effects on military member, spouse, and children following repeated deployments with combat exposure |
| 17. Mental health assistance programs available/accessible to military families Pre/Post and during deployments |
| 18. Member's job performance affected as a result of experiences in a combat zone |
| 19. Risk of family violence during reintegration following a combat related deployment |
| 20. Timely and effective screening for military members with possible combat related challenges such as Post Traumatic Stress Disorder (PTSD) |
| 21. Follow up process available for delayed onset of PTSD or other combat related health |

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| issues |
| 22. Preventive measures in place to address or minimize PTSD symptoms |
| 23. Immediate care provided for members with Traumatic Brain Injuries (TBI's) |
| 24. Standardized and effective treatment/follow-up of TBI's |
| 25. Long term impact of TBI's on military member and family |
| 26. Immediate and appropriate integration of education and treatment designed to |
| maximize care and ensure smooth transition for the returning member and their |
| family |
| 27. Increased suicide rate of military members |
| 28. Cost/consequences for military members who report suicidal thoughts, gestures, |
| attempts |
| 29. Pre/post combat evaluations conducted for suicidal thoughts or intent |
| 30. Follow up procedures with members separated from the military that have been |
| exposed to combat and may have delayed reactions |
| 31. Impact of multiple deployments to combat zones on rate of substance abuse |
| 32. The need for substance abuse assessments conducted pre and post deployment |
| 33. Available resources for family members when military member has been identified as |
| having a Substance abuse problem |
| 34. Cost/consequences for member identified as having a substance abuse problems, post |
| combat deployment |

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| 35. Disability ratings as a role in the level of care given to the military member and accessibility to treatment. |
| 36. Budget constraints impacting access to treatment |
| 37. Trusting environment within the mental health care system for veterans |
| 38. Increased demand on the mental health care system |
| 39. The impact on Long-term health care for those not treated early |
| 40. Culture within the military regarding mental health assistance for military members |
| 41. Financial difficulties for military members/family dependence on state/government |
| aide |
| 42. Family stability of affected military members |
| 43. Vocational opportunities for returning military members |
| 44. Increased risk of homelessness for combat veterans |
| 45. Knowledge of referral processes, procedures and access to appropriate care for those |
| who are separated from the military |
| 46. Overall preparedness of the mental health care community nationwide, to treat |
| military members with combat exposure. |

Appendix B:

Combined Participant Group

| Identified Issue | Become a Worse Problem | Remain a Problem | Become Less of a problem | Chi-square Test |
|------------------|------------------------|------------------|--------------------------|--------------------------------|
| 1 | 16 | 45 | 41 | $\chi^2(2) = 14.52, p = .001$ |
| 2 | 19 | 55 | 28 | $\chi^2(2) = 20.64, p = .000$ |
| 3 | 17 | 45 | 40 | $\chi^2(2) = 13.11, p = 0.001$ |
| 4 | 18 | 40 | 44 | $\chi^2(2) = 11.52, p = .003$ |
| 5 | 28 | 47 | 27 | $\chi^2(2) = 7.47, p = .024$ |
| 6 | 29 | 47 | 27 | $\chi^2(2) = 7.58, p = 0.023$ |
| 7 | 28 | 42 | 32 | $\chi^2(2) = 3.059, p = 0.217$ |
| 8 | 18 | 43 | 41 | $\chi^2(2) = 11.35, p = 0.003$ |
| 9 | 31 | 50 | 21 | $\chi^2(2) = 12.76, p = 0.002$ |
| 10 | 57 | 33 | 12 | $\chi^2(2) = 29.82, p = 0.000$ |
| 11 | 37 | 44 | 21 | $\chi^2(2) = 8.176, p = 0.017$ |
| 12 | 38 | 50 | 14 | $\chi^2(2) = 19.76, p = 0.000$ |
| 13 | 38 | 49 | 15 | $\chi^2(2) = 17.70, p = 0.000$ |
| 14 | 15 | 44 | 43 | $\chi^2(2) = 15.49, p = 0.000$ |
| 15 | 24 | 46 | 32 | $\chi^2(2) = 7.294, p = .026$ |
| 16 | 51 | 41 | 10 | $\chi^2(2) = 26.88, p = .000$ |
| 17 | 20 | 57 | 25 | $\chi^2(2) = 23.70, p = .000$ |
| 18 | 35 | 52 | 15 | $\chi^2(2) = 20.17, p = .000$ |

| Identified Issue | Become a Worse Problem | Remain a Problem | Become Less of a problem | Chi-square Test |
|------------------|------------------------|------------------|--------------------------|--------------------------------|
| 19 | 33 | 49 | 20 | $\chi^2(2) = 12.41, p = .002$ |
| 20 | 29 | 53 | 20 | $\chi^2(2) = 17.11, p = .000$ |
| 21 | 36 | 45 | 21 | $\chi^2(2) = 8.647, p = .013$ |
| 22 | 31 | 43 | 28 | $\chi^2(2) = 3.706, p = .157$ |
| 23 | 15 | 37 | 50 | $\chi^2(2) = 18.41, p = .000$ |
| 24 | 13 | 44 | 45 | $\chi^2(2) = 19.47, p = .000$ |
| 25 | 31 | 50 | 21 | $\chi^2(2) = 12.76, p = 0.002$ |
| 26 | 18 | 58 | 26 | $\chi^2(2) = 26.35, p = .000$ |
| 27 | 42 | 43 | 17 | $\chi^2(2) = 12.76, p = 0.002$ |
| 28 | 39 | 47 | 16 | $\chi^2(2) = 15.23, p = .000$ |
| 29 | 33 | 44 | 25 | $\chi^2(2) = 5.353, p = .069$ |
| 30 | 43 | 41 | 18 | $\chi^2(2) = 11.35, p = .003$ |
| 31 | 56 | 30 | 16 | $\chi^2(2) = 24.23, p = .000$ |
| 32 | 35 | 44 | 23 | $\chi^2(2) = 6.529, p = .038$ |
| 33 | 28 | 48 | 26 | $\chi^2(2) = 8.706, p = .013$ |
| 34 | 39 | 49 | 14 | $\chi^2(2) = 19.11, p = .000$ |
| 35 | 42 | 46 | 14 | $\chi^2(2) = 17.88, p = .000$ |
| 36 | 66 | 25 | 11 | $\chi^2(2) = 48.05, p = .000$ |
| 37 | 36 | 47 | 19 | $\chi^2(2) = 11.70, p = .003$ |

| Identified Issue | Become a Worse Problem | Remain a Problem | Become Less of a problem | Chi-square Test |
|------------------|------------------------|------------------|--------------------------|--------------------------------|
| 38 | 68 | 25 | 9 | $\chi^2(2) = 54.76, p = 0.000$ |
| 39 | 56 | 37 | 9 | $\chi^2(2) = 32.88, p = .000$ |
| 40 | 25 | 54 | 23 | $\chi^2(2) = 17.70, p = .000$ |
| 41 | 57 | 34 | 11 | $\chi^2(2) = 31.11, p = 0.000$ |
| 42 | 46 | 45 | 11 | $\chi^2(2) = 23.35, p = 0.000$ |
| 43 | 21 | 49 | 32 | $\chi^2(2) = 11.70, p = 0.003$ |
| 44 | 42 | 41 | 19 | $\chi^2(2) = 9.941, p = .007$ |
| 45 | 29 | 52 | 21 | $\chi^2(2) = 15.23, p = 0.000$ |
| 46 | 31 | 50 | 21 | $\chi^2(2) = 12.76, p = .002$ |

Appendix C:

Demographic/Sought Mental Health Care

| Identified Issue | Become a Worse Problem | Remain a Problem | Become Less of a problem | Chi-square Test |
|---------------------------|------------------------|------------------|--------------------------|---------------------------------|
| Sought Mental Health Care | Yes / No | Yes / No | Yes / No | |
| 1 | 22.9% / 12.1% | 60.0% / 34.8% | 17.1% / 53.0% | $\chi^2(2) = 12.241, p = 0.002$ |
| 2 | 34.3% / 9.1% | 60.0% / 51.5% | 5.7% / 39.4% | $\chi^2(2) = 17.807, p = 0$ |
| 3 | 25.7% / 12.1% | 54.3% / 37.9% | 20.0% / 50.0% | $\chi^2(2) = 9.121, p = 0.01$ |
| 4 | 25.7% / 13.6% | 45.7% / 34.8% | 28.6% / 51.5% | $\chi^2(2) = 5.335, p = 0.069$ |
| 5 | 42.9% / 19.7% | 45.7% / 45.5% | 11.4% / 34.8% | $\chi^2(2) = 9.118, p = 0.01$ |
| 6 | 37.1% / 22.7% | 45.7% / 47.0% | 17.1% / 30.3% | $\chi^2(2) = 3.261, p = 0.196$ |
| 7 | 28.6% / 27.3% | 45.7% / 37.9% | 25.7% / 34.8% | $\chi^2(2) = .962, p = 0.618$ |
| 8 | 20.0% / 16.7% | 42.9% / 40.9% | 37.1% / 42.4% | $\chi^2(2) = .321, p = 0.852$ |
| 9 | 42.9% / 24.2% | 51.4% / 47.0% | 5.7% / 28.8% | $\chi^2(2) = 8.532, p = 0.014$ |
| 10 | 80.0% / 43.9% | 20.0% / 37.9% | 0.0% / 18.2% | $\chi^2(2) = 13.941, p = 0.001$ |
| 11 | 45.7% / 30.3% | 51.4% / 39.4% | 2.9% / 30.3% | $\chi^2(2) = 10.570, p = 0.005$ |
| 12 | 45.7% / 33.3% | 51.4% / 47.0% | 2.9% / 19.7% | $\chi^2(2) = 5.705, p = 0.058$ |
| 13 | 51.4% / 28.8% | 42.9% / 51.5% | 5.7% / 19.7% | $\chi^2(2) = 6.565, p = 0.038$ |
| 14 | 28.6% / 7.6% | 54.3% / 36.4% | 17.1% / 56.1% | $\chi^2(2) = 16.651, p = 0$ |
| 15 | 34.3% / 18.2% | 51.4% / 40.9% | 14.3% / 40.9% | $\chi^2(2) = 8.181, p = 0.017$ |
| 16 | 62.9% / 43.9% | 34.3% / 42.4% | 2.9% / 13.6% | $\chi^2(2) = 4.688, p = 0.096$ |
| 17 | 25.7% / 16.7% | 60.0% / 53.0% | 14.3% / 30.3% | $\chi^2(2) = 3.516, p = 0.172$ |

| Identified Issue | Become a Worse Problem | Remain a Problem | Become Less of a problem | Chi-square Test |
|---------------------------|------------------------|------------------|--------------------------|---------------------------------|
| Sought Mental Health Care | Yes / No | Yes / No | Yes / No | |
| 18 | 57.1% / 22.7% | 42.9% / 54.5% | 0.0% / 22.7% | $\chi^2(2) = 16.391, p = 0$ |
| 19 | 48.6% / 24.2% | 45.7% / 48.5% | 5.7% / 27.3% | $\chi^2(2) = 9.548, p = 0.008$ |
| 20 | 48.6% / 16.7% | 45.7% / 56.1% | 5.7% / 27.3% | $\chi^2(2) = 14.232, p = 0.001$ |
| 21 | 48.6% / 27.3% | 42.9% / 45.5% | 8.6% / 27.3% | $\chi^2(2) = 6.876, p = 0.032$ |
| 22 | 51.4% / 18.2% | 37.1% / 45.5% | 11.4% / 36.4% | $\chi^2(2) = 14.012, p = 0.001$ |
| 23 | 22.9% / 10.6% | 51.4% / 28.8% | 25.7% / 60.6% | $\chi^2(2) = 11.251, p = 0.004$ |
| 24 | 14.3% / 12.1% | 57.1% / 36.4% | 28.6% / 51.5% | $\chi^2(2) = 5.112, p = 0.078$ |
| 25 | 48.6% / 21.2% | 42.9% / 53.0% | 8.6% / 25.8% | $\chi^2(2) = 9.467, p = 0.009$ |
| 26 | 25.7% / 13.6% | 62.9% / 53.0% | 11.4% / 33.3% | $\chi^2(2) = 6.526, p = 0.038$ |
| 27 | 62.9% / 30.3% | 34.3% / 45.5% | 2.9% / 24.2% | $\chi^2(2) = 12.729, p = 0.002$ |
| 28 | 57.1% / 27.3% | 37.1% / 51.5% | 5.7% / 21.2% | $\chi^2(2) = 9.907, p = 0.007$ |
| 29 | 51.4% / 21.2% | 40.0% / 45.5% | 8.6% / 33.3% | $\chi^2(2) = 12.413, p = 0.002$ |
| 30 | 60.0% / 33.3% | 34.3% / 42.4% | 5.7% / 24.2% | $\chi^2(2) = 8.608, p = 0.014$ |
| 31 | 74.3% / 45.5% | 20.0% / 34.8% | 5.7% / 19.7% | $\chi^2(2) = 8.137, p = 0.017$ |
| 32 | 54.3% / 24.2% | 40.0% / 45.5% | 5.7% / 30.3% | $\chi^2(2) = 12.462, p = 0.002$ |
| 33 | 40.0% / 21.2% | 57.1% / 42.4% | 2.9% / 36.4% | $\chi^2(2) = 14.328, p = 0.001$ |
| 34 | 57.1% / 28.8% | 40.0% / 53.0% | 2.9% / 18.2% | $\chi^2(2) = 9.736, p = 0.008$ |
| 35 | 62.9% / 30.3% | 34.3% / 50.0% | 2.9% / 19.7% | $\chi^2(2) = 11.775, p = 0.003$ |
| 36 | 85.7% / 54.5% | 14.3% / 28.8% | 0.0% / 16.7% | $\chi^2(2) = 11.258, p = 0.004$ |

| Identified Issue | Become a Worse Problem | Remain a Problem | Become Less of a problem | Chi-square Test |
|---------------------------|------------------------|------------------|--------------------------|---------------------------------|
| Sought Mental Health Care | Yes / No | Yes / No | Yes / No | |
| 37 | 60.0% / 21.2% | 34.3% / 53.0% | 5.7% / 25.8% | $\chi^2(2) = 16.541, p = 0$ |
| 38 | 80.0% / 59.1% | 20.0% / 27.3% | 0.0% / 13.6% | $\chi^2(2) = 6.769, p = 0.034$ |
| 39 | 71.4% / 45.5% | 28.6% / 40.9% | 0.0% / 13.6% | $\chi^2(2) = 8.557, p = 0.014$ |
| 40 | 37.1% / 16.7% | 48.6% / 56.1% | 14.3% / 27.3% | $\chi^2(2) = 5.969, p = 0.051$ |
| 41 | 74.3% / 45.5% | 25.7% / 37.9% | 0.0% / 16.7% | $\chi^2(2) = 10.268, p = 0.006$ |
| 42 | 65.7% / 34.8% | 34.3% / 48.5% | 0.0% / 16.7% | $\chi^2(2) = 11.676, p = 0.003$ |
| 43 | 34.3% / 13.6% | 54.3% / 45.5% | 11.4% / 40.9% | $\chi^2(2) = 11.534, p = 0.003$ |
| 44 | 65.7% / 28.8% | 34.3% / 42.4% | 0.0% / 28.8% | $\chi^2(2) = 17.958, p = 0$ |
| 45 | 37.1% / 24.2% | 57.1% / 47.0% | 5.7% / 28.8% | $\chi^2(2) = 7.651, p = 0.022$ |
| 46 | 48.6% / 21.2% | 42.9% / 51.5% | 8.6% / 27.3% | $\chi^2(2) = 9.778, p = 0.008$ |

Appendix D:

Demographic/Level of Combat Exposure

| Identified Issue | Become a Worse Problem (N/O/C/H) | Remain a Problem (N/O/C/H) | Become Less of a problem (N/O/C/H) | Chi-square Test |
|------------------|----------------------------------|----------------------------|------------------------------------|---------------------------------|
| 1 | 14.90% | 44.60% | 40.60% | $\chi^2(6) = 11.062, p = 0.086$ |
| 2 | 17.80% (2/4/3/9) | 54.50% (6/25/13/11) | 27.70% (2/19/5/2) | $\chi^2(6) = 15.101, p = 0.019$ |
| 3 | 15.80% | 44.60% | 39.60% | $\chi^2(6) = 7.648, p = 0.265$ |
| 4 | 16.80% | 39.60% | 43.60% | $\chi^2(6) = 12.081, p = 0.060$ |
| 5 | 26.70% | 46.50% | 26.70% | $\chi^2(6) = 5.212, p = 0.517$ |
| 6 | 27.70% | 46.50% | 25.70% | $\chi^2(6) = 8.484, p = 0.205$ |
| 7 | 26.70% | 41.60% | 31.70% | $\chi^2(6) = 6.166, p = 0.405$ |
| 8 | 16,8% | 42.60% | 40.60% | $\chi^2(6) = 2.409, p = 0.878$ |
| 9 | 29.70% | 49.50% | 20.80% | $\chi^2(6) = 10.217, p = 0.116$ |
| 10 | 55.40% | 32.70% | 11.90% | $\chi^2(6) = 5.850, p = 0.44$ |
| 11 | 35.60% | 43.60% | 20.80% | $\chi^2(6) = 2.515, p = 0.867$ |
| 12 | 36.60% | 49.50% | 13.90% | $\chi^2(6) = 1.343, p = 0.969$ |
| 13 | 36.60% | 48.50% | 14.90% | $\chi^2(6) = 9.027, p = 0.172$ |
| 14 | 13.90% | 43.60% | 42.60% | $\chi^2(6) = 10.159, p = 0.118$ |
| 15 | 22.80% | 45.50% | 31.70% | $\chi^2(6) = 4.248, p = 0.643$ |
| 16 | 49.50% | 40.60% | 9.90% | $\chi^2(6) = 4.479, p = 0.612$ |
| 17 | 18.80% | 56.40% | 24.80% | $\chi^2(6) = 3.439, p = 0.752$ |
| 18 | 33.70% | 51.50% | 14.90% | $\chi^2(6) = 9.008, p = 0.173$ |
| 19 | 31.70% | 48.50% | 19.80% | $\chi^2(6) = 8.132, p = 0.229$ |

| Identified Issue | Become a Worse Problem (N/O/C/H) | Remain a Problem (N/O/C/H) | Become Less of a problem (N/O/C/H) | Chi-square Test |
|------------------|----------------------------------|----------------------------|------------------------------------|---------------------------------|
| 20 | 27.70% | 52.50% | 19.80% | $\chi^2(6) = 3.761, p = 0.709$ |
| 21 | 34.70% | 44.60% | 20.80% | $\chi^2(6) = 5.483, p = 0.484$ |
| 22 | 29.70% | 42.60% | 27.70% | $\chi^2(6) = 4.377, p = 0.626$ |
| 23 | 13.90% | 36.60% | 49.50% | $\chi^2(6) = 11.471, p = 0.075$ |
| 24 | 11.90% | 43.60% | 44.60% | $\chi^2(6) = 6.673, p = 0.352$ |
| 25 | 29.70% | 49.50% | 20.80% | $\chi^2(6) = 5.018, p = 0.541$ |
| 26 | 16.80% | 57.40% | 25.70% | $\chi^2(6) = 5.687, p = 0.459$ |
| 27 | 40.60% | 42.60% | 16.80% | $\chi^2(6) = 10.103, p = 0.12$ |
| 28 | 37.60% | 46.50% | 15.80% | $\chi^2(6) = 6.949, p = 0.326$ |
| 29 | 31.70% | 43.60% | 24.80% | $\chi^2(6) = 5.611, p = 0.468$ |
| 30 | 41.60% | 40.60% | 17.80% | $\chi^2(6) = 3.860, p = 0.696$ |
| 31 | 54.50% | 29.70% | 15.80% | $\chi^2(6) = 3.208, p = 0.782$ |
| 32 | 33.70% | 43.60% | 22.80% | $\chi^2(6) = 3.234, p = 0.779$ |
| 33 | 26.70% | 47.50% | 25.70% | $\chi^2(6) = 10.259, p = 0.114$ |
| 34 | 37.60% | 48.50% | 13.90% | $\chi^2(6) = 5.253, p = 0.512$ |
| 35 | 40.60% (2/18/7/14) | 45.50% (8/20/13/5) | 13.90% (0/10/1/3) | $\chi^2(6) = 15.147, p = 0.019$ |
| 36 | 64.40% | 24.80% | 10.90% | $\chi^2(6) = 6.094, p = 0.413$ |
| 37 | 34.70% | 46.50% | 18.80% | $\chi^2(6) = 9.129, p = 0.166$ |
| 38 | 66.30% | 24.80% | 8.90% | $\chi^2(6) = 7.970, p = 0.24$ |
| 39 | 54.50% | 36.60% | 8.90% | $\chi^2(6) = 7.255, p = 0.298$ |
| 40 | 23.80% | 53.50% | 22.80% | $\chi^2(6) = 11.443, p = 0.076$ |

| Identified Issue | Become a Worse Problem (N/O/C/H) | Remain a Problem (N/O/C/H) | Become Less of a problem (N/O/C/H) | Chi-square Test |
|------------------|----------------------------------|----------------------------|------------------------------------|--------------------------------|
| 41 | 55.40% | 33.70% | 10.90% | $\chi^2(6) = 4.892, p = 0.558$ |
| 42 | 44.60% | 44.60% | 10.90% | $\chi^2(6) = 7.069, p = 0.315$ |
| 43 | 19.80% | 48.50% | 31.70% | $\chi^2(6) = 4.769, p = 0.574$ |
| 44 | 40.60% | 40.60% | 18.80% | $\chi^2(6) = 4.796, p = 0.57$ |
| 45 | 27.70% | 51.50% | 20.80% | $\chi^2(6) = 4.489, p = 0.611$ |
| 46 | 29.70% | 49.50% | 20.80% | $\chi^2(6) = 6.547, p = 0.365$ |

Note. Two significant issues for “remains the same” were note (Q’s 2 and 35). The N/O/C/H indicates the level of combat exposure (N-No Direct Combat Exposure/O-Occasional Combat Exposure/C-Consistent Combat Exposure/H-High level of Exposure). The scores associated with N/C/O/H for significant Q’s 2 and 35 represent raw scores. The scores associated with the non-significant scores (remainder of the questions) are combined total scores for the demographic.

Appendix E:

Demographics/Number of Deployments

| Identified Issue | Become a Worse Problem | Remain a Problem | Become Less of a problem | Chi-square Test |
|------------------|------------------------|------------------|--------------------------|----------------------------------|
| 1 | 15.70% | 44.10% | 40.20% | $\chi^2(10) = 6.350, p = 0.785$ |
| 2 | 18.60% | 53.90% | 27.50% | $\chi^2(10) = 9.696, p = 0.468$ |
| 3 | 16.70% | 44.10% | 39.20% | $\chi^2(10) = 7.400, p = 0.687$ |
| 4 | 17.60% | 39.20% | 43.10% | $\chi^2(10) = 6.544, p = 0.768$ |
| 5 | 27.50% | 46.10% | 26.50% | $\chi^2(10) = 10.368, p = 0.409$ |
| 6 | 28.40% | 46.10% | 25.50% | $\chi^2(10) = 7.427, p = 0.685$ |
| 7 | 27.50% | 41.20% | 31.40% | $\chi^2(10) = 7.624, p = 0.666$ |
| 8 | 17.60% | 42.20% | 40.20% | $\chi^2(10) = 6.603, p = 0.762$ |
| 9 | 30.40% | 49.00% | 20.60% | $\chi^2(10) = 6.622, p = 0.761$ |
| 10 | 55.90% | 32.40% | 11.80% | $\chi^2(10) = 7.671, p = 0.661$ |
| 11 | 36.30% | 43.10% | 20.60% | $\chi^2(10) = 3.269, p = 0.974$ |
| 12 | 37.30% | 49.00% | 13.70% | $\chi^2(10) = 3.209, p = 0.976$ |
| 13 | 37.30% | 48.00% | 14.70% | $\chi^2(10) = 9.548, p = 0.481$ |
| 14 | 14.70% | 43.10% | 42.20% | $\chi^2(10) = 5.885, p = 0.825$ |
| 15 | 23.50% | 45.10% | 31.40% | $\chi^2(10) = 3.028, p = 0.981$ |
| 16 | 50.00% | 40.20% | 9.80% | $\chi^2(10) = 13.471, p = 0.198$ |
| 17 | 19.60% | 55.90% | 24.50% | $\chi^2(10) = 10.211, p = 0.422$ |
| 18 | 34.30% | 51.00% | 14.70% | $\chi^2(10) = 13.787, p = 0.183$ |
| 19 | 32.40% | 48.00% | 19.60% | $\chi^2(10) = 12.346, p = 0.263$ |
| 20 | 28.40% | 52.00% | 19.60% | $\chi^2(10) = 8.243, p =$ |

| Identified Issue | Become a Worse Problem | Remain a Problem | Become Less of a problem | Chi-square Test |
|------------------|------------------------|------------------|--------------------------|----------------------------------|
| | | | | 0.605 |
| 21 | 35.30% | 44.10% | 20.60% | $\chi^2(10) = 5.275, p = 0.872$ |
| 22 | 30.40% | 42.20% | 27.50% | $\chi^2(10) = 9.371, p = 0.497$ |
| 23 | 14.70% | 36.30% | 49.00% | $\chi^2(10) = 4.807, p = 0.904$ |
| 24 | 12.70% | 43.10% | 44.10% | $\chi^2(10) = 6.254, p = 0.794$ |
| 25 | 30.40% | 49.00% | 20.60% | $\chi^2(10) = 13.289, p = 0.208$ |
| 26 | 17.60% | 56.90% | 25.50% | $\chi^2(10) = 5.039, p = 0.889$ |
| 27 | 41.20% | 42.20% | 16.70% | $\chi^2(10) = 14.433, p = 0.154$ |
| 28 | 38.20% | 46.10% | 15.70% | $\chi^2(10) = 7.232, p = 0.703$ |
| 29 | 32.40% | 43.10% | 24.50% | $\chi^2(10) = 3.432, p = 0.969$ |
| 30 | 42.20% | 40.20% | 17.60% | $\chi^2(10) = 5.664, p = 0.843$ |
| 31 | 54.90% | 29.40% | 15.70% | $\chi^2(10) = 11.759, p = 0.302$ |
| 32 | 34.30% | 43.10% | 22.50% | $\chi^2(10) = 8.766, p = 0.554$ |
| 33 | 27.50% | 47.10% | 25.50% | $\chi^2(10) = 4.858, p = 0.917$ |
| 34 | 38.20% | 48.00% | 13.70% | $\chi^2(10) = 5.570, p = 0.85$ |
| 35 | 41.20% | 45.10% | 13.70% | $\chi^2(10) = 8.274, p = 0.602$ |
| 36 | 64.70% | 24.50% | 10.80% | $\chi^2(10) = 12.714, p = 0.24$ |
| 37 | 35.30% | 46.10% | 18.60% | $\chi^2(10) = 11.039, p = 0.355$ |
| 38 | 66.70% | 24.50% | 8.80% | $\chi^2(10) = 6.757, p = 0.748$ |
| 39 | 54.90% | 36.30% | 8.80% | $\chi^2(10) = 8.647, p = 0.566$ |
| 40 | 24.50% | 52.90% | 22.50% | $\chi^2(10) = 12.121, p = 0.277$ |
| 41 | 55.90% | 33.30% | 10.80% | $\chi^2(10) = 5.012, p = 0.89$ |

| Identified Issue | Become a Worse Problem | Remain a Problem | Become Less of a problem | Chi-square Test |
|------------------|------------------------|------------------|--------------------------|----------------------------------|
| 42 | 45.10% | 44.10% | 10.80% | $\chi^2(10) = 7.146, p = 0.712$ |
| 43 | 20.60% | 48.00% | 31.40% | $\chi^2(10) = 15.090, p = 0.129$ |
| 44 | 41.20% | 40.20% | 18.60% | $\chi^2(10) = 12.625, p = 0.245$ |
| 45 | 28.40% | 51.00% | 20.6 | $\chi^2(10) = 11.242, p = 0.339$ |
| 46 | 30.40% | 49.00% | 20.60% | $\chi^2(10) = 10.949, p = 0.362$ |

Appendix F: Glossary

- Active Duty Status: *Working full time in the military (May also include National Guard/Reserves, i.e., while deployed or on active reserve status)*
- American Legion: *An association of former US servicemen/women formed in 1919; the nation's largest veteran's organization*
- Combat Veteran: *For the purposes of this study; any military member who has served in a combat zone/theatre*
- Deployment: *Temporary Assignment to a Particular Location*
- Purple Heart Association (The Military Order of the Purple Heart): *“Chartered by Congress in 1958, The Military Order of the Purple Heart is composed of military men and women who received the Purple Heart Medal for wounds suffered in combat. Although our membership is restricted to the combat wounded, we support all veterans and their families with a myriad of nation-wide programs by Chapters and National Service Officers”*
(<http://www.purpleheart.org/>).

Acronyms:

- DOD: *Department of Defense*
- IED: *Improvised Explosive Device*
- OEF: *Operation Enduring Freedom*
- OIF: *Operation Iraqi Freedom*
- PTSD: *Post Traumatic Stress Disorder*

TBI: *Traumatic Brain Injury*

VA: *Veterans Affairs*

Vet Center: *Veterans Center*

Curriculum Vita

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- Ph.D. Counseling Psychology Program, Lehigh
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- B.A. Psychology
University of Central Oklahoma, Edmond, Oklahoma
July 30, 2003
- A.A.S. Space Operations Technology
Community College of the Air Force, Maxwell AFB, Alabama
December 16, 1999

MENTAL HEALTH RELATED WORK EXPERIENCE/TRAINING:

--Internship at Northampton VAMC, Leeds, MA (2010/2011)

Training/Experience: Individual/group therapy, inpatient/outpatient

specialty programs (*In-patient PTSD Program, Substance Abuse Treatment*

Program, Acute Psychiatric Unit), TBI/Polytrauma consultation, evidence-based

therapies (such as Prolonged Exposure Therapy, Cognitive Processing Therapy,

Acceptance and Commitment Therapy (ACT), Motivational Interviewing),

assessments, coordinate/consult with treatment teams, case management and psycho-education

--Practicum - Allentown VA Clinic, Allentown, PA (2007/2008)

Training/Experience: Individual/group therapy, assessments, and evidence based therapies (e.g., Dialectical Behavioral Therapy)

--Practicum - Allentown State Hospital, Allentown, PA (2006/2007)

Training/Experience: Individual/group therapy, evidence-based therapies, experience/treatment of various psychological disorders, coordinate/consult with treatment teams and development of psychoeducational material for group therapy sessions

--Work/Study Program (Vocational Rehabilitation Office) - Oklahoma City

VAMC, OKC, OK (2001-2002)

Training/Experience: Vocational rehabilitation counseling, problem solving life issues with veterans, conduct research/write narratives of justification for clients requesting vocational rehabilitation benefits, coordinate and consult with medical staff and social workers, update and manage case files of clients.

RESEARCH:

-- Dissertation: *Behavioral Health Issues Facing Returning Combat*

Veterans; a forecasting of future challenges

-- Doctoral Qualifying Study: *Mental Health Care Issues in Combat*

Recovery Assistance (2008)

--Research team for Dr. Nicholas Ladany, previous Department Chairperson, Education and Human Services Department, Lehigh University, Bethlehem, Pennsylvania. Research subjects: "Therapist Supervision", "Psychotherapy Ambiguity Tolerance," and "Client Social Support". Duties included: Information research, data entry, and data graphing for analysis (2004/2005)

--Co-authored, conducted and presented an experimental research project developed to measure the effects of preferred music on various cognitive performance tasks. The results were presented at the Twentieth and Twenty-First Annual Research Conferences, as well as, the Eleventh Annual Poster Session held in Edmond, Oklahoma. The events were sponsored by the Oklahoma Psychological Society (approx. 2001-2003)

TEACHING ASSISTANT:

--Teaching assistant for graduate level, *Counseling Skills* course. Duties: teaching, developing lesson plans, grading assignments, offering feedback during counseling role-plays and taped counseling sessions (2006)

--Teaching assistant for *Experimental Design*, a psychology research course. Duties: teaching, tutoring, curriculum modification, assisting students in developing, conducting, and public ally reporting their research results, grading assignments, tests, and research projects (2003)

PROFESSIONAL PRESENTATIONS:

--*Mental Health Care Issues in Combat Recovery Assistance*, Poster Presentation, 2008 American Psychological Association (APA) Conference

--*Mental Health Care Issues in Combat Recovery Assistance*, Poster Presentation, 2009 College of Education Student Research Symposium, Lehigh University

ACADEMIC ACHIEVEMENTS/PROFESSIONAL ASSOCIATIONS:

--Summa Cum Laude – University of Central Oklahoma, Oklahoma (2003)

--Member of American Psychological Association (2004-Present)

--Member of Psi Chi - National Honor Society (2001-2003)

--Member of Alpha Chi – National Honor Society (2001-2003)

--Member of Phi Theta Kappa – National Honor Society (1999-2000)

U.S. AIR FORCE CAREER/JOB/TRAINING HIGHLIGHTS:

United States Air Force Career/Job Highlights (1980-2000):

--Airborne Warning and Control Systems (AWACS)

---Airborne Surveillance Technician/Advanced Airborne Surveillance Technician

---Battle Director Technician/Battle Staff

--USAF Medical Recruiter: Nurses

--Military Training Instructor: Basic Military Training, USAF

--Air Traffic Controller

UNITED STATES AIR FORCE PROFESSIONAL TRAINING HIGHLIGHTS (1980-2000):

- Continuing Education Training (CET): Formal school/course training in all career positions held while in the Air Force. Additional training in leadership, management, supervision, instruction, counseling, and skill level upgrade training for all career fields (1980-2000)
- USAF Non-Commissioned Officer's Academy (1994)
- USAF POW and Escape/Evasion Survival Training for Aircrew Members (1992)
- USAF Non-Commissioned Officer's Leadership School (1986)

References

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