

AN EVALUATION OF VETERAN TO CIVILIAN REINTEGRATION STRESSORS,
CO-OCCURRENCE, AND PERCEPTION OF PROCEDURE

A thesis presented to the faculty of the Graduate School of
Western Carolina University in partial fulfillment of the
requirements for the degree of Master of Arts in Clinical Psychology

By

Caitlin Georgina Stone

Director: Dr. Jamie Vaske
Professor of Criminology
Criminology and Criminal Justice Department

Committee Members: Dr. David McCord, Psychology
Dr. Ellen Sigler, Psychology

April 2018

ACKNOWLEDGEMENTS

I am grateful to all of those with whom I have had the pleasure to work during this and other related projects. Each of the members of my Thesis Committee has provided me extensive personal and professional guidance and taught me a great deal about both scientific research and life in general. I would especially like to thank Dr. Jamie Vaske. You have helped me to foster my passion and continue research in such a worthwhile direction. For that, I am grateful.

I would also like to extend a sincere thank you to my cohort. Your love and support has been instrumental in this process. I would not be half as successful if I didn't have the family, camaraderie, and friendship that I have found within you all.

To my husband, thank you for supporting me throughout this process, and always encouraging me to follow my dreams. And to my parents, who have always taught me to chase education and fostered a work ethic that has pushed me throughout my academic career. Thank you.

TABLE OF CONTENTS

ABSTRACT..... v

CHAPTER 1: INTRODUCTION..... 1

CHAPTER 2: LITERATURE REVIEW 4

 Depression, Anxiety, and Post-Traumatic Stress Disorder..... 5

 Suicide Risk..... 6

 Incarceration..... 7

 Substance Abuse and Dependence..... 8

 Interpersonal Relationships and Readjustment..... 8

 Workplace Difficulties 11

 Sleep Disturbance..... 12

 Comorbidity of Reintegration Stressors..... 12

 Reintegration Programs..... 13

 The Present Study..... 14

CHAPTER THREE: METHODOLOGY 15

 Participants 15

 Measures..... 17

 Procedure..... 19

 Analysis..... 20

CHAPTER 4: RESULTS 21

 Research Question 1: The Overall Prevalence of Reintegration Stressors 21

 Research Question 2: The Co-Occurrence of Reintegration Stressors 24

 Research Question 3: Perception of Reintegration Process 26

CHAPTER 5: DISCUSSION..... 29

REFERENCES 34

APPENDICES 42

 Appendix of measures..... 42

LIST OF TABLES

Table 1: Deployment and Military Demographics	16
Table 2: Frequency of Reintegration Stressors Experienced by Veterans.....	22
Table 3: Co-Occurrence of Reintegration Stressors	25
Table 4: Reintegration Services and Perceptions Throughout Process	27
Table 5: Comparison of Interpersonal Difficulties	30

ABSTRACT

AN EVALUATION OF VETERAN TO CIVILIAN REINTEGRATION STRESSORS, CO-OCCURRENCE, AND PERCEPTION OF PROCEDURE

Caitlin Stone, M.A.

Western Carolina University (April, 2018)

Director: Dr. Jamie Vaske

Though the majority of veterans are able to reintegrate into civilian society without incident, a portion of the population does experience mild to severe stressors such as mental health disorders, suicide risk, incarceration, substance abuse and dependence, interpersonal relationships and readjustment, workplace difficulties, and sleep disturbance (Blow et al., 2013; Bonanno et al., 2012; Haller, Angkaw, Hendricks & Norman, 2016; Sayer et al., 2010; Short et al., 2016). Unfortunately, the current literature focuses on only one or two stressors, and rarely acknowledges all stressors as they coexist among the veteran population. The current study will focus on all prevalent reintegration stressors, and the relationship they may have for veterans. More specifically, the study will identify: (1) which reintegration stressors are more prevalent than others, (2) which co-occur with other stressors, and (3) the perception of the reintegration process. A sample of 31 veterans completed a comprehensive questionnaire that assessed these reintegration stressors; frequencies and Spearman's r correlations were conducted to evaluate the previously mentioned relationships. Many of the veterans experienced each of the reintegration stressors measured, at varying degrees. More veterans experienced at least one mental health diagnosis, but there were many who experienced more than one. Almost half of the sample had thought about suicide, and almost 20 percent had made a plan. A large portion of the veterans in this sample experienced relationship difficulties as well as interpersonal difficulties. The overall co-occurrence of reintegration stressors are consistent with the previous literature, providing

more insight into what has been previously found. In regard to veteran perception of the process, several themes emerged including: difficulty finding a “tribe”, adjusting to the loose structure of civilian life, lack of a marketable trade, and difficulties with mental health issues. These findings demonstrate a deep need to re-evaluate the reintegration process and increase the number of programs and support systems available to veterans after leaving the military.

CHAPTER 1: INTRODUCTION

Though many veterans are able to reintegrate into civilian life with little to no lifelong problems, a significant number of veterans experience difficulty with the transition. It is difficult to apply conclusions from research on Vietnam veterans to current veterans given the fact that many current veterans experience multiple deployments, longer deployments, and may benefit from medical advancements and advancements in protective uniforms (IOM, 2010). Ultimately, veterans who do experience stressors returning back to civilian life can experience a wide array of stressors including mental health diagnosis, suicide risk, incarceration, substance abuse and dependence, interpersonal relationships and readjustment, workplace difficulties, and sleep disturbance (Bonanno et al., 2012; Sayer et al., 2010).

Current research has provided a brief insight into the experience of veterans through their reintegration to the civilian society. The vast majority of studies include observing the prevalence of mental health diagnoses, such as post-traumatic stress disorder (PTSD), depression, and panic disorders. For example, Dursa, Reinhard, Barth, and Schneiderman (2014) found that the overall prevalence of PTSD within the study is 13.5%. Several other studies have found similar prevalence rates that range from 12% to 38% (Greiger et al., 2006; Sayer et al., 2010; Sayer et al., 2011). In conjunction with mental health disorders, suicidal ideation is frequently experienced by veterans. Since the beginning of the OEF/OIF war era, the military has experienced an increase in the number of suicides attempted and completed by soldiers (IOM, 2010). Due to its presence as a symptom of many mental health disorders, sleep disturbance has been studied in association with PTSD and depression. It has been found that between 30% and

60% of veterans experience some kind of sleep disturbance that includes difficulty falling asleep, difficulty staying asleep, insomnia, or fewer hours of sleep (McLay, Klam, & Wolkert, 2010; Short et al., 2016). Substance misuse has been found in approximately 30% to 40% of personnel within studies, screening for “probable alcohol abuse” or hazardous drink behaviors and may be linked to mental health diagnoses (Blow et al., 2013; Eisen et al., 2012). Finally, military service may be correlated with an increased risk of contact with the criminal justice system (i.e., arrest, incarceration) due to the culmination of trauma, mental health problems, and substance misuse.

After returning to living among civilians, many veteran personnel experience difficulties creating and maintaining interpersonal relationships and maintaining jobs. Interpersonal relationships include those among spouses, parent and child, as well as other civilians outside of the family. Cingrang et al. (2014) found that one third of the airmen in their sample reported that either they or their partner had taken steps to end their relationship since returning from deployment. This includes breaking up, separation, and divorce. Other studies have found that veterans had difficulty returning home, difficulty getting along with family members, or feeling like the world had moved on without them (Brenner et al., 2015; Sayer et al., 2010). Following deployment, many veterans face difficulty maintaining jobs, with a high prevalence of approximately 45% of unemployment, 24% experiencing job loss and some veterans reporting problems with productivity (Burnett-Zeigler et al., 2011; Cohen, Suri, Amick, & Yan, 2011; Sayer et al., 2010). Co-occurrence of reintegration stressors appears to be common among veterans, with many stressors occurring simultaneously with mental health disorders and interpersonal relationships (Sayer et al., 2010). Unfortunately, few studies have examined the relationship among all stressors, and the majority of studies focus on one or two stressors of interest.

At this time, there are some programs available to help both veterans and their families with the reintegration process, though there is little research regarding the success of each program. The Yellow Ribbon Reintegration Program (YRRP) relies on commanders and military leaders to engage their military servicemembers in events that will put them in direct connection with providers and community services. In contrast to this, The Strong Families Program is an eight module, in-home program that is based on self-referral and includes family members to meet the perceived needs and increase awareness of available community services. Though these programs are available for all veterans and their families, they are not mandatory, and therefore are not taken advantage of by those who are in the process of reintegrating into civilian community. As a result, these programs may be under-utilized and may not address the co-occurrence of different reintegration stressors among groups of veterans.

The present study aims to build upon the available literature, by studying the prevalence of the most widely known reintegration stressors. In particular, the goals of the current study are three-fold: (1) to identify which reintegration stressors are most common, (2) to examine which stressors most commonly co-occur, and (3) to identify veterans' perceptions of the reintegration process and availability of programs. These research questions will be tested using a diverse sample of veterans who complete a provided survey that asks specific questions regarding all previously mentioned reintegration stressors. It is hoped that the findings of this study will bring attention to the reintegration experience for veterans, as well as perspectives on how the process could be improved.

CHAPTER 2: LITERATURE REVIEW

A significant body of research has been dedicated to examining veteran reintegration stressors throughout various deployment eras. Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF) and Operation New Dawn (OND) comprise the longest war era since the Vietnam War, and is the first war of its length to rely on a volunteer-based military. Due to a smaller military population than in past conflicts, personnel have been sent on multiple tours to meet demands, causing frequent transitions and additional stresses for service members and their families (IOM, 2010). With the advancement of medicine and warfare, the effects of war on veterans has evolved, and previous research results cannot be generalized to the returning veterans of the current deployment era. Examples of the effects of modern medicine on veteran reintegration include increased life expectancy and greater treatment options for more conditions. While the majority of veterans do not experience mental health or adjustment problems post-deployment, those who do experience problems exhibit difficulties in a variety of facets, including interpersonal functioning, sleep disturbance, mental health disorders, substance misuse and more (Bonanno et al., 2012; Sayer et al., 2010).

Despite the vast body of research regarding reintegration stressors in veterans over the various war eras, there is a distinct gap: very few studies examine the multiple, highly researched facets of reintegration stressors and processes to reduce them. These stressors include DSM diagnoses (depression, anxiety, PTSD, panic disorder), suicidal ideation, interactions with the law (incarceration or arrests), substance misuse (drugs or alcohol) interpersonal functioning (relationships, divorce, or identity disruption), workplace difficulties and sleep disruption. It is likely that if all highly researched stressors were examined within one study, links between

stressors may be observed. The purpose of the current study is to assess the prevalence of these stressors, determine if there are any relationships among stressors, and explore processes that could diminish the presentation of reintegration stressors or better prepare veterans for reintegration. In particular, the current study examines the following stressors: depression, anxiety, post-traumatic stress disorder, suicide risk, incarceration, substance use and dependence, interpersonal relationships and adjustment, workplace difficulties, and sleep disturbance.

Depression, Anxiety, and Post-Traumatic Stress Disorder

Due to the unique characteristics of this deployment era, an increase in DSM diagnoses has been seen. The Institute of Medicine found that of those who have been deployed more than twice, 27% have been diagnosed with depression, anxiety or acute stress, while only 12% of those who have been deployed once received a similar diagnosis (IOM, 2010). Another study that included personnel from both the Army and Marines found that 15.6 to 17.1% met the screening criteria for major depression, generalized anxiety or posttraumatic stress disorder (PTSD) after their deployment to Iraq (Hoge et al., 2004).

A large focus of recent veteran reintegration research has been centered on the diagnosis or probable diagnosis of PTSD. An analysis of 20,563 OEF and OIF veterans, both deployed and non-deployed, found that 13.5% to 15.8% of the entire study population screened positive for PTSD; however, positive screens were higher for those who have been deployed than those who have not. Several subgroups were identified as having a higher prevalence of PTSD diagnosis and included VA healthcare users, Marine Corps veterans, and veterans who served on active duty (Dursa, Reinhard, Barth, & Schneiderman, 2014). Similar prevalence rates of 12% - 38% have been found among other studies, including a longitudinal study that measured rates of

PTSD and depression soon after arrival and then again seven months later (Greiger et al., 2006; Sayer et al., 2010; Sayer et al., 2011).

The question of comorbidity among DSM diagnosis and reintegration stressors has been of interest in previous research. Several studies have found that those seeking treatment for PTSD or depression had higher rates of other reintegration stressors (difficulties in the work place, sleep disruptions, interpersonal function), even expressing interest in more kinds of services through the VA than those who did not have a suspected diagnosis (Greiger et al., 2006; Haller, Angkaw, Hendricks & Norman, 2016; Sayer et al., 2010).

Suicide Risk

Combined, these stressors and suspected DSM diagnoses can exacerbate the risk of suicide among veterans (Marek & D'Aniello, 2014; Haller, Angkaw, Hendricks, & Norman, 2016). The Institute of Medicine (2010) has noted an increased number of reported suicide among soldiers who have served in Iraq and Afghanistan, since the beginning of the war era. In the past, the rate of suicide among military personnel was lower than the rate of suicide among civilians, but current research has found that the rates are greater than or equal to the rate of suicide among civilians, equating to approximately 10-13 soldiers per 100,000 troops in comparison to 13.5% per 100,000 civilians (IOM, 2010; Haller, Angkaw, Hendricks, & Norman, 2016). Bachynski et al. (2012) found that young, white males had higher prevalence rates of suicide, as well as those enlisted in the lower ranks of the military. Suicide rates were also higher among those who were diagnosed with a mental illness or an adjustment disorder (Bachynski et al., 2012). In contrast to these findings of increased suicide rates, some studies have found that the rate of suicide was greater at the beginning of the war era, in the early 2000's than at the end

of the war era, in the late 2000's. This shift may be due to a heightened awareness and attentiveness to the onset and diagnosis of mental health disorders since the beginning of the war era (Blow et al., 2012).

Incarceration

In addition to mental health problems, veterans may also be at risk for incarceration. In 1998, over 200,000 veterans were incarcerated, and of those, 20% had served in combat positions during the Vietnam War or Gulf War (Mumola, 2000). In another study of over 3,500 Gulf War veterans, 14.5% reported that they had been incarcerated at least once prior to deployment and 8.3% reported that they had been incarcerated during or after deployment (Black et al., 2005).

The probability of incarceration among veterans may also be tied to their mental health problems. The prevalence rate of incarceration among veterans with mental health disorders ranges from 9% to 20% among the literature (Elbogen et al., 2012; Greenberg & Rosenheck, 2009). Erickson, Rosenheck, Trestman, Ford, & Desai (2008) completed a chi-square analysis and found that mental health illnesses were significantly higher among incarcerated veterans compared to non-incarcerated veterans; however, after completing a multivariate analysis, they found that mental health illnesses were not independent risk factors or a predictor of potential incarceration of veterans after adjustments for other stressors such as substance use. In this study, the strongest predictor of incarceration was a diagnosis of substance abuse and dependence and receipt of inpatient care to treat substance abuse (Erickson et al., 2008). Other risk factors for incarceration include criminal backgrounds, traumatic brain injury (TBI), and aggression. Profiles of veterans at a higher risk for incarceration include those of minority ethnicity, young

males, and troubled family backgrounds (Calhoun, Malesky, Bosworth, & Beckham, 2005; Elbogen et al., 2012, Greenberg & Rosenheck, 2009). Though substance use is a large predictor for incarceration or arrests, it also has interactions with other reintegration stressors.

Substance Abuse and Dependence

Substance abuse, namely alcohol, has been reported to be highly prevalent among OEF/OIF veterans in recent literature. In 2015, the NSDUH reported that within the general population, 8.4% of men and 4.2% of women who are 18 years of age and older have been diagnosed with an alcohol use disorder (National Institute of Mental Health, 2017). Research has found that Army and Marine veterans are a higher risk for drug and alcohol misuse in comparison to other branches of the military (Eisen et al., 2012; Maguen et al., 2010; Wells et al., 2010). In contrast to the prevalence of alcohol use disorder in civilians, several studies have found that veterans are more than three times more likely to engage in behaviors that put themselves at risk in regard to substance misuse than civilians (Blow et al., 2013; Eisen et al., 2012; Sayer et al., 2010).

Interpersonal Relationships and Readjustment

Post-deployment interpersonal functioning has been found to be a significant stressor among veterans, as identification of roles within families are re-established, routines are learned, and life continued while personnel are deployed and away from home. The Department of Defense reported in 2007 that approximately 55.2% of the active component force were married, and 6.7% of those were married to other military personnel. Of the branches of military, the Air Force had the largest population of married personnel (DOD, 2007). However, veterans return home with potential injuries, mental health disorders, and cognitive deficits, and these

consequences can lead to problems with interpersonal functioning, such as relational difficulties, divorce, parenting problems, and identity disruption. Some have noted that it feels as if the world had moved on in their absence, and they are then tasked with finding where they fit in upon returning (Brenner et al., 2015; IOM, 2010).

The majority of research focuses on PTSD and its effect on families post-deployment, ignoring the readjustment issues that emerge for veterans. Some veterans experience difficulty transitioning from the independence of deployment to the dependence of a spouse and children. Others have cited difficulties in areas such as confidence, dedication, and sacrifice within their relationships upon return. While PTSD and depression do contribute to familial stress after deployment, there are other factors to be considered such as stress of identity, re-establishment of bonds, and renegotiating roles (Allen, Rhoades, Stanley, & Markman, 2010; Blow et al., 2013; Brenner et al., 2015; IOM, 2010). Marek & D'Aniello (2014) completed a study with 675 service members and 295 partners of service members. Both service members and partners of service members perceived the partners to be more mentally healthy, and more partners than service members reported the presence of PTSD symptoms. Partners were also more likely to endorse the severity of impact that PTSD has on the service member's life than service members. PTSD and other mental health problems may strain romantic relationships, and ultimately increase the likelihood of divorce and separation within military families.

Indeed, divorce and separation are a common occurrence in the reintegration of veterans, and both are significantly more prevalent for female veterans than males. Angrist and Johnson (2000) found that deployment affected the marriages of male and female veterans differently. Female veterans had an increased likelihood of divorce post-deployment (17.3%) than male veterans (7.9%). Cingrang et al. (2014) found that approximately one-third of their sample

comprised of 164 security forces airmen noted that either they or their partner had taken steps to end their relationship, including but not limited to filing for divorce by 6-9 months after their deployment. This included 29.7% of those who were married before their deployment and 39.1% of airmen who were not married but reported being in a committed relationship prior to their deployment. Of those who reported their relationship with their significant other was ending, approximately 44% did not classify the relationship as “significantly distressed” before deployment.

Though divorce has often been a focus of reintegration literature, the quality of relationships can have a large effect on veterans as well. Measured through constructs such as confidence, satisfaction, dedication, and perceived levels of social support, the overall quality can create stress for both the veteran and significant other. In regard to partner satisfaction, several studies have looked the effect of mental health diagnoses on relationship satisfaction and have found that these diagnoses have a negative impact. Mental health diagnoses, such as PTSD, depression and anxiety, were strong predictors of relationship quality (satisfaction, divorce), even after controlling for alcohol use, partner stress and parenting stress (Blow et al., 2013; Allen, Rhoades, Stanley, & Markman, 2010).

Problems with relationships may extend outside of the immediate family and include difficulties connecting with other people. Perception of social support has been found to influence veteran reintegration, as it stands to assist veteran’s transition from deployment life to civilian life. Several studies have found that difficulty maintaining relationships and getting along with relatives are related to mental health diagnosis or suicidal ideation (Haller, Angkaw, Hendricks & Norman, 2016; Sayer et al., 2010). In a sample of over 750 veterans, one study found that 56% had difficulty confiding or sharing personal thoughts or feelings, 45% reported

having difficulty maintaining nonmilitary friendships, 42% reported difficulty getting along with their spouse or partner, and 34% had difficulty getting along with relatives other than their spouse or partner. Those who endorsed these difficulties were more likely to have been diagnosed with PTSD than those who did not (Sayer et al., 2010). These interpersonal functioning deficits could have a large impact on more than just the veteran's family, but also the community. It has been found that veterans who have greater social support are less likely to show signs of post deployment deterioration and are less likely to experience difficulty with reintegration stressors (Cingrang et al., 2014). Interpersonal difficulties can cause strain on veterans to interact with strangers, which can also harm their ability to obtain and maintain a job among the civilian population.

Workplace Difficulties

Workplace difficulties are one of the many struggles that veterans face on a daily basis when re-entering the civilian lifestyle. Part of the battle is simply gaining employment at an establishment for fair pay. Burnett-Zeigler et al. (2011) found that one month before the end of their deployment, only 41% of veterans were employed. Of those, 79% were employed full time. Veterans who were female, young, unmarried, had a high school degree or less, came from a low-income family, or have poorer mental health status were less likely to be employed than other veterans. Alternatively, those who had been on multiple deployments were more likely to be employed, though the authors noted these effects were confounded with age and that this may also mean that they were older service members. A study conducted by Cohen, Suri, Amick & Yan (2011) found that those who endorsed symptoms of depression were less likely to be employed than those who did not. This was seen most in younger veterans, who ranged from ages 25 to 45.

Sleep Disturbance

One of the most commonly reported issues that veterans face is sleep disturbance. Several studies have cited that approximately 30% of the veteran population suffers from some form of sleep disturbance, which includes difficulty falling asleep, difficulty staying asleep, or sleeping too much (Hoge et al., 2008; Hoge, Terhakopian, Castro, Messer, & Engel, 2007; Raskind et al., 2007; Wright et al., 2011). One study found that 33% of veterans reported an increase of insomnia symptoms that remained stable after follow-up 3 months post-discharge (McLay, Klam, & Wolkert, 2010).

Sleep disturbances have a high comorbidity with mental health diagnoses, which is not surprising due to the disorder being a diagnostic feature of depression or PTSD. It has also been found to be highly correlated with rumination, aggression, and physical pain. For example, the relationship between sleep problems and physical pain has been found to strengthen the correlation between the diagnosis of PTSD and aggression (LaMotte et al., 2016). Other studies have found that sleep problems such as sleep disturbance, daytime somnolence and small amounts of sleep can predict future PTSD and depression in veterans (Borders, Rothman, & McAndrew, 2014; McLay et al., 2010; Wright et al., 2011). Sleep disturbance and insomnia has also been found to increase the risk for suicide attempt and death as the result of suicide (Pigeon, Britton, Ilgen, Chapman, & Conner, 2012).

Comorbidity of Reintegration Stressors

Overall, reintegration stressors have been found to be interrelated, and can exacerbate one another. Mental health diagnosis have been found to co-occur with suicidal ideation (Bachynski et al., 2012; Haller, Angkaw, Hendricks, & Norman, 2016), arrests and incarceration (Elbogen et

al., 2012; Erickson et al., 2008; Sayer et al., 2010), substance abuse and dependence (Eisen et al., 2012; Sayer et al., 2010), interpersonal relationships and readjustment (Allen, Rhoades, Stanley, & Markman, 2010; Blow et al., 2013; Marek & D’Aniello, 2014), workplace difficulties (Sayer et al., 2010) and sleep disturbance (Borders, Rothman, & McAndrew, 2014; McLay et al., 2010; Wright et al., 2011). Though it is not always clear which direction the correlation occurs, there is a strong relationship between each of these reintegration stressors.

Reintegration Programs

As veterans transition from military life to civilian life, there are several programs that work with ex-military personnel to ease with stressors that they face. Veterans and their families experience a profile of stressors that require specialized programs. One program, Yellow Ribbon Reintegration Program (YRRP), was created with National Guard and Reserve members in mind, to help both the service members and their families. There are no referral guidelines for this program, rather commanders and military leaders are directed to ensure that their personnel are aware of YRRP events and services. The YRRP provides service members and families with information regarding other services within the community and military, health care, education and training opportunities, financial and legal benefits, as well as prepares individuals for the cycle of deployment. This includes preparing both the reservist and family to deployment, managing stress, strengthening relationships, career transitions, mental health screenings, and education of benefits and services (Jackson, 2009). Those who have joined YRRP have stated that they learned about services and benefits that they did not previously know that they had access to and found the program helpful. Since becoming part of legislation in 2008, the YRRP has helped more than 1.5 million service members and family members (Scherrer et al., 2014).

Another program, known as the Strong Families Program, incorporates veterans, spouses, children and other family members to address their specific needs. The Strong Families Program is a self-referred, home-based, eight module course that helps to mitigate parenting issues; incorporating clinicians, military providers and community outreach. In modules one through four, families focus on family engagement, followed by modules five through eight, when families and providers focus on their perceived needs. At this time, the Strong Families Program is still new, but has gained a large amount of interest, with over 450 inquiries in 2014, and resulted in families looking for other programs to join, indicating families were more comfortable with trying reintegration programs. Through a pilot study, 90.9% of families completed the program, which indicates that military parents that they are willing to complete programs that benefit their children (Ross & DeVoe, 2014).

The Present Study

The present study will examine the co-occurrence of reintegration stressors faced by veterans which include mental health diagnoses, suicidal ideation, incarceration and arrests, substance abuse, interpersonal relationships, workplace difficulties, and sleep disturbance. Few studies have looked at the combination of all well-known reintegration stressors, and instead choose to evaluate specific stressors and their interdependence. Importantly, very little research has looked at emerging profiles of those who experience reintegration stressors as well as their perception of the process experience. In light of this, the goals of the current study are three-fold: (1) evaluate the prevalence of reintegration stressors; (2) determine if there are relationships among stressors; and (3) explore veteran perception of the reintegration processes and potential improvements to the procedure.

CHAPTER THREE: METHODOLOGY

Participants

The present study included 31 veterans who have been discharged from service, using snowball sampling from Western Carolina University, as well as Jacksonville, Florida. The sample included 27 males and 4 females. Almost half of the participants (48%) were between the ages of 25 and 34, and overall the participants ranged from 18 to 74. The highest-level education breakdown of the participants was High School or GED (3.2%), Some College or Technical School (51.6%), Bachelor's Degree (22.6%), Master's Degree (12.9%), and Doctoral Degree (9.7%). Within the sample, the majority were veterans of the United States Army (41.9%), followed by the Marines (25.8%), Navy (19.4%), and Air Force (12.9%). Further deployment statistics can be found in the table below.

Table 1: Deployment and Military Demographics

Deployment Statistics	Frequency	Percent
Deployment Era		
OIF/OEF/OFS	20	64.5%
Persian Gulf War	2	6.5%
Vietnam	1	3.2%
None of the Above	5	16.1%
Other	3	9.7%
Time in Military		
Less than 2 years	2	6.5%
2-5 years	11	35.5%
5-10 years	8	25.8%
10+ years	10	32.3%
Discharge Status		
General	1	3.2%
Honorable	28	90.3%
Other	2	6.5%
Combat Role		
Combat	17	54.8%
Non-Combat	14	45.2%
Number of Deployments		
Never	7	22.6%
Once	6	19.4%
Twice	9	29.0%
More than 3 times	9	29.0%
Deployed to Combat Zone		
Combat Zone	20	64.5%
Non-combat zone	8	25.8%
Deployment Experience		
Became wounded	6	19.4%
Saw the bodies of dead soldiers or civilians	19	61.3%
Witnessed anyone being killed	15	48.4%
Discharged a weapon	16	51.6%

Measures

All participants completed a self-report, mixed methods questionnaire comprised of 44 items, that measure various aspects of veteran reintegration. Areas of interest included military history, sleep disturbance, mental health diagnosis, previous arrests, substance use, personal relationships and domestic violence, and interpersonal functioning. Veterans had the opportunity to discuss what services they have sought out after discharge and their overall experience after leaving the military via an open-ended text box. The questionnaire is provided in Appendix 1.

Before completing questions regarding their reintegration experience, veterans answered demographic questions, such as their age, highest level of education, branch of military they served under, whether or not they served in a combat position, which deployment era they served in, their length of service, and discharge status.

Questions regarding sleep disturbance included information such as “how often do you have trouble falling asleep” and “how often do you have trouble staying asleep”, with answers that range from “never in the past 4 weeks” (scored as 0) to “5 or more times in the past 4 weeks” (scored as 4). This is loosely based on a questionnaire used in previous longitudinal study of chronic illnesses called The National Longitudinal Study of Adolescent to Adult Health (ADD Health) and was included due to previous research findings that veterans are at a high risk of sleep disturbance (Harris et al., 2009). When examining the co-morbidity of reintegration stressors experienced, the two sleep questions were combined to create the sleep variability scale.

To measure mental health diagnosis, veterans were asked to answer “yes” or “no” to whether or not they have been diagnosed with PTSD, Depression, Anxiety, or Panic Disorder

(0=no, 1=yes). This too is loosely based on the ADD Health questionnaire as well as previous research indicating that a statistically significant number of veterans receive a mental health diagnosis post-discharge (Harris et al., 2009; Hoge et al., 2004; Greiger et al., 2006; Sayer et al., 2010; Sayer et al., 2011).

Suicidal ideation was measured through “yes” or “no” questions regarding their thoughts of suicide and whether or not they have ever made a plan (0=no, 1=yes). This section was created based on previous research that indicates that the veteran population are at an increased risk of suicidal ideation compared to the civilian population (Bachynski et al., 2012; Haller, Angkaw, Hendricks & Norman, 2016; IOM, 2010). To examine the co-occurrence of reintegration stressors, the two suicide questions measuring whether veterans had thought about suicide and if they had ever made a plan, were also combined to give an overall suicide variability scale.

Questions regarding arrests included “have you used illegal drugs” (0=no, 1=yes) and “how often do you drink alcohol” with answers ranging from “never in the past 4 weeks” (scored as 0) to “everyday” (scored as 5). These questions are loosely based on the ADD Health questionnaire and previous research that has found veterans are an increased risk for substance misuse (Harris et al., 2009; Blow et al., 2013; Eisen et al., 2012; Sayer et al., 2010).

Personal relationships and domestic violence questions were posed with “yes” or “no” answers and include “have you ever been divorced” (0=no, 1=yes) and “have you been in a relationship where your partner has been violent towards you (threatened you, physically hit you)” (0=no, 1=yes). Previous research has shown that veterans are at an increased risk for

divorce and domestic violence (Allen, Rhoades, Stanley, & Markman, 2010; Blow et al., 2013; Brenner et al., 2015; Cingrang et al., 2014; DOD, 2007; IOM, 2010).

Interpersonal relationships were measured by the Military to Civilian Questionnaire (M2C-Q), which is a 16 question Likert scale questionnaire, with answers ranging from “Extreme/Cannot Do” to “None”, and has a Cronbach’s α of .95 (Sayer et al., 2010). This short questionnaire was based on research that was available at the time of creation, and measures veterans functioning problems, psychosocial functioning and community reintegration (Sayer et al., 2010). When examining the co-occurrence of reintegration stressors, the items measuring interpersonal items were dichotomized (0 = none, mild, or moderate, 1 = severe or extreme), and then the 16-dichotomized items were summed together to create a scale that measured the number of interpersonal problems experienced by respondents.

Last, veterans were asked what services they have sought since discharge, which can include VA, Mental Health Professional, General Physician, Physical Therapist or Neurologist. To complement these questions, veterans were given the opportunity to respond and provide their input regarding experiences they have had since leaving the military, the biggest challenge they’ve faced, what services they’ve received since discharge and what services they believe would have been beneficial. These questions allowed veterans to share their experience as well as provide feedback on how the reintegration process can be improved.

Procedure

Over 700 veterans received an email with a brief explanation of the study as well as a link to the survey. Of those who received the email, 39 veterans began the study; 8 veterans were removed, as they did not complete a substantial amount of the survey, leaving a total of 31

veterans. Participation was voluntary and completely anonymous. The questionnaire took approximately 30 minutes to complete. After the completion of the survey, veterans were provided information on crisis hotlines. The survey was completed through Qualtrics, and the data was this study was compiled and analyzed using SPSS.

Analysis

The goals of the study were to: (1) examine the prevalence of reintegration stressors, (2) assess the co-occurrence or comorbidity of the stressors, and (3) to examine the types of reintegration services participants had sought out after separation and their perception of these services. The first research question was examined by reviewing the descriptive statistics for the individual reintegration stressors. In order to determine the co-occurrence of reintegration stressors, Spearman's r correlations were conducted to determine if any two stressors co-occur more than others. Spearman's r was used instead of Pearson's r because the data is not all continuous and includes variables that are dichotomous. Finally, common responses to the qualitative questions were grouped together and reported to draw conclusions regarding perception of the reintegration process and how it can be improved.

CHAPTER 4: RESULTS

Results are based on the 17 males and 4 females (N=31) who completed the survey and were predominantly between 25 and 34 years old. In order to assess the prevalence of each reintegration stressor experienced, the overall frequency was calculated, Spearman's r was calculated to determine the co-occurrence of each stressor, and themes were pulled from the veteran's perception of the overall reintegration procedure.

Research Question 1: The Overall Prevalence of Reintegration Stressors

More than half of the veterans experienced difficulty falling asleep and staying asleep at least once a week, with over a quarter of the sample experiencing these problems 3 or more times per week. Within the sample, veterans endorsed being diagnosed with anxiety (41.9%), depression (38.7%), PTSD (29%) and panic disorder (12.9%). Almost half of the sample (45.2%) have thought about committing suicide; of those, 4 veterans (16.1%) made a plan to commit suicide.

Over one quarter of the sample had been arrested at least once, with one veteran who had been arrested four or more times. Similar rates were seen among illicit drug use, with 29% of the sample stating that they have used illicit drugs. More than half of the veterans stated that they consume alcohol at least once a week, including 16.1% of the sample stating that they consume alcohol five or more times per week.

In regard to their relationships, almost three-quarters of the sample state that they are currently in a relationship, and over 40% have been divorced. More than 20% stated that they have been in a relationship where their partner was violent towards them, and just over 10%

stated that they have been in a relationship where they themselves were violent towards their partner. When looking at overall interpersonal impairments, the veterans did not express any problems with keeping up military and non-military friendships. Over 20% state that they have difficulty confiding or sharing personal thoughts or feelings, taking part in community activities, belonging in civilian society, and finding purpose or meaning in life.

Table 2: Frequency of Reintegration Stressors Experienced by Veterans

Reintegration Stressors	Frequency	Percent
Trouble Falling Asleep		
Never in the past 4 weeks	4	12.9%
Less than once a week	8	25.8%
1-2 times per week	5	16.1%
3-4 times per week	12	38.7%
5 or more times per week	2	6.5%
Trouble Staying Asleep		
Never in the past 4 weeks	3	9.7%
Less than once a week	5	16.1%
1-2 times per week	6	19.4%
3-4 times per week	7	22.6%
5 or more times per week	10	32.3%
Diagnosed with:		
PTSD	9	29.0%
Depression	12	38.7%
Anxiety	13	41.9%
Panic Disorder	4	12.9%
Suicide		
Thought about Suicide	14	45.2%
Made a Plan	5	16.1%
Number of Times Arrested		
Never	22	71.0
Once	4	12.9

Reintegration Stressors	Frequency	Percent
Twice	1	3.2
Four or more times	1	3.2
Use Illicit Drugs		
Yes	9	29.0%
No	22	71.0%
Consume Alcohol		
Never in the past 4 weeks	3	9.7
Less than once a week	7	22.6
1-2 times per week	8	25.8
3-4 times per week	8	25.8
5 or more times per week	5	16.1
Relationships		
In a relationship	23	74.2%
Been divorced	13	41.9%
Been in a relationship where partner was violent towards you	7	22.6%
Been in a relationship where you were violent to your partner	4	12.9%
Interpersonal, Severe to Extreme Impairment		
Confiding or sharing personal thoughts or feelings	8	24.2%
Dealing with Strangers	4	12.1%
Making new friends	5	15.2%
Keeping up non-military friendships	0	0%
Keeping up military friendships	0	0%
Getting along with relatives	4	12.1%
Getting along with spouse or partner	2	6.1%
Getting along with children	4	12.1%
Finding or keeping a job	1	3.0%
Doing what is needed for a job or school	5	15.2%
Taking care of chores at home	2	6.1%
Taking part in community activities	7	21.2%
Belonging in civilian society	9	27.3%
Taking care of health	3	9.1%
Enjoy free time	3	9.1%
Finding purpose or meaning in life	8	24.2%

Research Question 2: The Co-Occurrence of Reintegration Stressors

Within the table, it is evident that there is a high co-occurrence of mental health diagnoses. Veterans who reported being diagnosed with depression also reported a diagnoses of PTSD ($r=.513$); those who reported a diagnoses of anxiety reported they also had a diagnosis of PTSD ($r=.753$) or depression ($r=.681$); and veterans who reported a diagnosis of panic disorder also reported a diagnosis of PTSD ($r=.429$) or anxiety ($r=.480$). Individuals who stated that they had either thought about suicide or made a plan also endorsed having a diagnosis of depression ($r=.634$) or anxiety ($r=.368$). Specifically, 71.4% of veterans who stated they had thought about suicide also had a diagnosis of depression, and 64.3% had a diagnosis of anxiety. Veterans who reported more arrests were also more likely to have mental health diagnoses, such as PTSD ($r=.406$), depression ($r=.449$), anxiety ($r=.574$), or panic disorder ($r=.784$). At least 66.6% of veterans who had been arrested stated that they had been diagnosed with one of the previously listed disorders. Veterans who came into contact with the criminal justice system also exhibited higher levels of interpersonal problems ($r = .453$) and reported high levels of illicit drug use ($r = .993$). Of those who stated that have used illicit drugs, 33.3% were also diagnosed with PTSD ($r=.431$), depression ($r=.437$), or anxiety ($r=.599$), and 22.2% were also diagnosed with panic disorder ($r=.765$), or had been arrested multiple times ($r=.993$). Veterans who reported that they were in a relationship were significantly more likely to also report thinking about suicide ($r=.382$). More specifically, 21.7% of veterans who were in a relationship had thought about suicide, and 17.4% had both thought about suicide and made a plan. The interpersonal variability scale was significantly related to the sleep variability scale ($r=.407$); diagnosis of depression ($r=.488$), anxiety ($r=.490$), or panic disorder ($r=.473$); multiple arrests ($r=.453$); use of illicit drugs ($r=.420$); and perpetrating violence against their partner ($r=.396$).

Table 3: Co-Occurrence of Reintegration Stressors

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Sleep Variability (1)	---													
PTSD (2)	.246	---												
Depression (3)	.138	.513**	---											
Anxiety (4)	.160	.753**	.681**	---										
Panic Disorder (5)	.154	.429*	.312	.480**	---									
Suicide (6)	.214	.195	.634**	.368*	.207	---								
Arrests (7)	-.031	.406*	.449*	.576**	.784**	.305	---							
Illicit Drugs (8)	-.032	.431*	.437*	.599**	.765**	.353	.993**	---						
Alcohol (9)	.246	.061	-.071	-.111	.207	.027	.046	.121	---					
Divorce (10)	.129	-.008	-.148	.007	-.122	-.228	-.244	-.256	.041	---				
In a relationship (11)	.327	.321	.264	.205	.053	.382*	.080	.037	.033	-.244	---			
Partner violent to you (12)	-.028	-.110	-.288	-.246	-.247	-.147	-.271	-.342	-.435*	.013	.053	---		
Violent to partner (13)	.207	.164	.363*	.010	.247	.288	.126	.071	-.005	.035	.479**	-.034	---	
Variability of Interpersonal (14)¹	.407*	.269	.488**	.490**	.473**	.419*	.453*	.420*	-.009	.168	.157	-.222	.396*	---

* $p < .05$ ** $p < .01$

¹Of the individual interpersonal stressors, diagnosis of a mental health disorder (with the exception of PTSD) was most significantly related to dealing with strangers, making new friends, getting along with relatives, doing what is needed for a job or school, taking part in community activities, belonging in civilian society, and enjoying free time. Suicidal ideation was most significantly related to dealing with strangers, doing what is needed for a job or school, and taking part in community activities. Being in a relationship was negatively related to making new friends and belonging in civilian society, and IPV (both victim and perpetrator) were significantly related to difficulty taking part in community activities and enjoying free time. Arrests was most significantly related to difficulty making friends, getting along with relatives, finding a job, doing what is needed for a job, taking part in community activities, and belonging in civilian society.

Research Question 3: Perception of Reintegration Process

Veterans had the opportunity to discuss their reintegration process. Almost half of the veterans have sought services at the VA or a mental health professional. Over 60% of the veterans have sought out a general physician, and a small number have sought out specialists such as physical therapists and neurologists. Only a quarter of the veterans stated that they felt prepared for their transition from veteran civilian, and a quarter remained neutral. Less than a quarter of the veterans felt satisfied with the reintegration process, and fewer agreed that their leadership prioritized supporting mental health.

Table 4: Reintegration Services and Perceptions Throughout Process

Reintegration Services	Frequency	Percent
Services sought after separation		
VA	15	48.4%
Mental Health Professional	14	45.2%
General Physician	20	64.5%
Physical Therapist	9	29.0%
Neurologist	5	16.1%
Commanding Officer Recommended a Reintegration Program	5	16.1%
Prior to separation felt prepared for the transition		
Not applicable	3	10.7%
Strongly Disagree	9	32.1%
Somewhat Disagree	2	7.1%
Neutral	7	25.0%
Somewhat agree	7	25.0%
Prior to separation felt satisfied with the reintegration process		
Not applicable	4	13.8%
Strongly Disagree	8	27.6%
Somewhat Disagree	3	10.3%
Neutral	7	24.1%
Somewhat agree	7	24.1%
Leadership prioritized supporting mental health		
Not applicable	2	7.4%
Strongly Disagree	12	44.4%
Somewhat Disagree	3	11.1%
Neutral	6	22.2%
Somewhat agree	4	14.8%

When provided the opportunity to discuss the changes they have experienced since leaving the military, several themes emerged among the responses. Several veterans stated that they had difficulty finding a sense of purpose or belonging. Others mentioned difficulty finding a job and needing support with overall financial planning. These findings were also observed in the interpersonal relationship questions, where 27.3% endorsed severe or extreme difficulty belonging in civilian society, and 18.2% experienced some level of difficulty finding or keeping a job (including mild, moderate, severe, and extreme). Several veterans indicated that they have

experienced an increase in irritability, and difficulties relating to mental health and substance use. The biggest challenge many faced during reintegration included finding a “tribe”, learning what is acceptable in civilian life compared to military life, becoming acclimated with the lack of structure in civilian life, and generally relating to civilians. One veteran stated “apparently it's okay for someone in the civilian world to show up 15 minutes after shift starts every day, but if you call them out on it, they start crying and you're the bad guy” when discussing how they had to learn to work with civilians. Others mentioned that they had to deal with the “lack of military buddies”, “not having camaraderie”, and difficulty finding “like-minded people who understood me”. General agreement was found among what services could have been beneficial after discharge, which included: having a marketable trade, employment assistance, mental health assistance, and a course on “How to Deal with Civilians”.

CHAPTER 5: DISCUSSION

The purpose of this study was to assess the overall prevalence of reintegration stressors experienced by veterans, the co-occurrence of these stressors, and the overall perception of the reintegration process. Within the first research question, it was found that there was a high prevalence of sleep problems, mental health diagnoses, thoughts of suicide, alcohol use, divorce and interpersonal difficulties. Overall, the prevalence of reintegration stressors examined in this study were consistent with previous research findings.

As previously mentioned, prevalence rates of between 12%-38% have been found for diagnoses of PTSD and depression (Greiger et al., 2006; Hoge et al., 2004; Sayer et al., 2010; Sayer et al., 2011). The overall prevalence within this study is higher than most studies. This may be due to other research looking at those who meet the screening criteria for diagnoses, compared to self-report of mental health diagnoses. Within this study, the prevalence of suicidal ideation is higher than the rate of suicide noted by the Institute of Medicine in 2010 (IOM, 2010; Haller, Angkaw, Hendricks & Norman, 2016). This is likely due to the fact that previous research has looked at suicide versus the present study that examines suicidal ideation.

The prevalence rates found within this study are also different from the findings that emerged from a previous analysis of the Add Health study (Harris et al., 2009) which found that 8.5% were diagnosed with anxiety or panic disorder, 13.1% were diagnosed with depression, 8.7% were diagnosed with PTSD, and 7.5% have thought about suicide. Further, when examining the interpersonal difficulties, there are differences between what was observed in the present study compared to those found by Sayer et al. (2010). There is a minimum of 16%

difference between the two samples, and the current study sample may significantly underrepresent the difficulties experienced by the overall veteran population. This difference may be due to the latter study using veterans who have visited the VA at least once within a specific one-year time period, while only 48.4% of the present study have used the VA's services since leaving the military.

Table 5: Comparison of Interpersonal Difficulties

Interpersonal Difficulties	Current Study	Sayer et al., 2010
Confiding or sharing personal thoughts or feelings	24.2%	56%
Dealing with Strangers	12.1%	43%
Making new friends	15.2%	44%
Keeping up non-military friendships	0%	45%
Keeping up military friendships	0%	28%
Getting along with relatives	12.1%	34%
Getting along with spouse or partner	6.1%	42%
Getting along with children	12.1%	29%
Finding or keeping a job	3.0%	25%
Doing what is needed for a job or school	15.2%	35%
Taking care of chores at home	6.1%	41%
Taking part in community activities	21.2%	49%
Belonging in civilian society	27.3%	49%
Taking care of health	9.1%	45%
Enjoy free time	9.1%	47%
Finding purpose or meaning in life	24.2%	42%

When examining the co-occurrence of reintegration stressors, a variety of relationships were significant, mostly relating to mental health. Of those, the most significant included the relationships between mental health and suicide, interpersonal relationships, and substance use; as well as the relationship between suicide and interpersonal relationships. Previous research has put a large emphasis on the co-morbidity of mental health diagnoses and reintegration stressors such as suicidal ideation, substance use, arrests, and interpersonal relationships (Allen, Rhoades, Stanley, & Markman, 2010; Bachynski et al., 2012; Eisen et al., 2012; Elbogen et al., 2012; Haller, Angkaw, Hendricks & Norman, 2016; Sayer et al., 2010; Wright et al., 2011). This study stands to confirm these findings, showing that mental health may play a significant role in the readjustment of veterans returning to civilian society.

Noteworthy correlations were found, such as a significant correlation between those who have thought about suicide and those who are in a relationship. It has been found in other research that being in a relationship was a protective factor for suicide, however, this was not what our sample endorsed (Bachynski et al., 2012; Marek & D’Aniello, 2014; Haller, Angkaw, Hendricks, & Norman, 2016). Second, those who used more alcohol were less likely to report that their partner was violent towards them. This is not what would have been expected to occur, and in fact, those who drank more often (3 or more times a week) were less likely to endorse that their partner was violent towards them (6.5% endorsed that their partner was violent towards them). Instead, those who drank less than once a week were more likely to endorse that their partner was violent towards them (42.9%). Last, a significant number of veterans (75%) who stated they were in a relationship also stated that they have been violent towards their partner.

The overall experience and perception of reintegration is an area of research that has not been explored significantly. Within this study, several themes emerged, showing gaps in the

current process. Along with interpersonal difficulties, many veterans have stated that they have increased difficulty finding purpose and belonging. This may stem from their inability or struggle relating with civilians after leaving the military. A large portion of the sample acknowledge that their leadership did not prioritize mental health services, and thus stated that dealing with mental health and substance use problems were of some of the most significant changes they experienced. They further stated that after leaving the military, they did not have a “marketable trade” that they were able to put on a resume to later have gainful employment, making it increasingly difficult to find their niche in the civilian world.

Implications

From the information provided by our participants, there are glaring gaps in the reintegration process that can be remedied. First, mental health needs to be prioritized among our veterans, especially as they work the transition away from the stability and structure that they have been able to rely on within the military. Of the stressors examined in the current study, mental health diagnoses were correlated with more reintegration stressors than any other variable, suggesting this is a key issue to target in treatment and prevention. Within this sector, suicidal ideation needs to be explored and discussed, as it has recently become an epidemic among veterans. Ensuring that individuals have the proper support and safety networks available, should the need arise, can help to lower the rate of suicide, and increase a feeling of belonging. Second, there needs to be more formal training that is provided prior to separation. This can include marketable trades, relational skills, or an informal “what to expect” from the process. Through this, it may be possible to confront issues regarding finding jobs, budgeting, workplace relationships, etc. Last, we need to be able to identify who is at risk for substance use dependence, educate our veterans on the stressors they may face, as well as teach them

productive coping skills. By providing this opportunity, individuals will then have an appropriate skill set to help them navigate and cope with the adjustments they will be forced to make during their transition.

Limitations

A limitation of this study is the overall sample. The small sample provides a small amount of power, which limits our ability to generalize the information gained. Further, there is a large age range, education levels, and deployment eras. When compared to similar studies from which the questions were based, there are large discrepancies in the overall prevalence rates of stressors (Harris et al., 2009; Sayer et al., 2010). Because of this, the findings must be interpreted with caution, as they may not be completely indicative of the current war era's reintegration difficulties, or further transfer to future war generations. To continue with the previous research path, we asked individuals what mental health disorders they have been diagnosed with, however, there is significant overlap among these disorders. We did not inquire as to what specific symptoms within each disorder veterans have experienced since returning, which could provide further insight into their reintegration process.

Further research should continue to examine the relationship among reintegration stressors. By increasing the sample size, latent class analyses can be run to determine if there are certain profiles of stressors experienced. A longitudinal study may be of interest, examining how these reintegration stressors change or evolve throughout the process and immediate years following separation from the military.

REFERENCES

- Angrist, J. D., & Johnson IV, J. H. (2000). Effects of work-related absences on families: Evidence from the Gulf War. *ILR Review*, *54*(1), 41-58.
- Allen, E. S., Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2010). Hitting home: Relationships between recent deployment, posttraumatic stress symptoms, and marital functioning for Army couples. *Journal Of Family Psychology*, *24*(3), 280-288.
doi:10.1037/a0019405
- Bachynski, K. E., Canham-Chervak, M., Black, S. A., Dada, E. O., Millikan, A. M., & Jones, B. H. (2012). Mental health risk factors for suicides in the US Army, 2007-8. *Injury Prevention*, *18*(6), 405-412. doi:10.1136/injuryprev-2011-040112
- Black, D. W., C. P. Carney, P. M. Peloso, R. F. Woolson, E. Letuchy, and B. N. Doebbeling. 2005. Incarceration and veterans of the first Gulf War. *Military Medicine* *170*(7):612-618.
- Blow, F. C., Bohnert, A. B., Ilgen, M. A., Ignacio, R., McCarthy, J. F., Valenstein, M. M., & Knox, K. L. (2012). Suicide mortality among patients treated by the Veterans Health Administration from 2000 to 2007. *American Journal Of Public Health*, *102*(Suppl 1), S98-S104. doi:10.2105/AJPH.2011.300441
- Bonanno, G. A., Mancini, A. D., Horton, J. L., Powell, T. M., Leardmann, C. A., Boyko, E. J., ...Smith, T. C. (2012). Trajectories of trauma symptoms and resilience in deployed U.S. military service members: Prospective cohort study. *British Journal of Psychiatry*, *200*, 317– 323.

- Borders, A., Rothman, D. J., & McAndrew, L. M. (2015). Sleep problems may mediate associations between rumination and PTSD and depressive symptoms among OIF/OEF veterans. *Psychological Trauma: Theory, Research, Practice, And Policy*, 7(1), 76-84. doi:10.1037/a0036937
- Brenner, L. A., Betthausen, L. M., Bahraini, N., Lusk, J. L., Terrio, H., Scher, A. I., & Schwab, K. A. (2015). Soldiers returning from deployment: A qualitative study regarding exposure, coping, and reintegration. *Rehabilitation Psychology*, 60(3), 277-285. doi:10.1037/rep0000048
- Burnett-Zeigler, I., Valenstein, M., Ilgen, M., Blow, A. J., Gorman, L. A., & Zivin, K. (2011). Civilian employment among recently returning Afghanistan and Iraq National Guard veterans. *Military Medicine*, 176(6), 639-646. doi:10.7205/MILMED-D-10-00450
- Calhoun, P. S., Malesky, L. A., Jr., Bosworth, H. B., & Beckham, J. C. (2005). Severity of posttraumatic stress disorder and involvement with the criminal justice system. *Journal of Trauma Practice*, 3(3), 1-16. doi:10.1300/J189v03n03_01
- Cigrang, J. A., Talcott, G. W., Tatum, J., Baker, M., Cassidy, D., Sonnek, S., & ... Slep, A. S. (2014). Impact of combat deployment on psychological and relationship health: A longitudinal study. *Journal Of Traumatic Stress*, 27(1), 58-65. doi:10.1002/jts.21890
- Cohen, S. I., Suri, P., Amick, M. M., & Yan, K. (2013). Clinical and demographic factors associated with employment status in US military veterans returning from Iraq and Afghanistan. *Work: Journal Of Prevention, Assessment & Rehabilitation*, 44(2), 213-219.

- DOD. 2007. Demographics 2007: Profile of the Military Community. Washington, DC: Department of Defense.
- Dursa, E. K., Reinhard, M. J., Barth, S. K., & Schneiderman, A. I. (2014). Prevalence of a positive screen for PTSD among OEF/OIF and OEF/OIF-era veterans in a large population-based cohort. *Journal Of Traumatic Stress, 27*(5), 542-549.
doi:10.1002/jts.21956
- Eisen, S. V., Schultz, M. R., Vogt, D., Glickman, M. E., Elwy, A. R., Drainoni, M., & ... Martin, J. (2012). Mental and physical health status and alcohol and drug use following return from deployment to Iraq or Afghanistan. *American Journal Of Public Health, 102*(Suppl 1), S66-S73. doi:10.2105/AJPH.2011.300609
- Elbogen, E. B., Johnson, S. C., Newton, V. M., Straits-Troster, K., Vasterling, J. J., Wagner, H. R., & Beckham, J. C. (2012). Criminal justice involvement, trauma, and negative affect in Iraq and Afghanistan war era veterans. *Journal Of Consulting And Clinical Psychology, 80*(6), 1097-1102. doi:10.1037/a0029967
- Erickson, S. K., Rosenheck, R. A., Trestman, R. L., Ford, J. D., & Desai, R. A. (2008). Risk of incarceration between cohorts of veterans with and without mental illness discharged from inpatient units. *Psychiatric Services, 59*(2), 178-183. doi:10.1176/appi.ps.59.2.178
- Greenberg, G. A., & Rosenheck, R. A. (2009). Mental health and other risk factors for jail incarceration among male veterans. *Psychiatric Quarterly, 80*(1), 41-53.
doi:10.1007/s11126-009-9092-8

- Grieger, T. A., Cozza, S. J., Ursano, R. J., Hoge, C., Martinez, P. E., Engel, C. C., & Wain, H. J. (2006). Posttraumatic stress disorder and depression in battle-injured soldiers. *The American Journal Of Psychiatry*, *163*(10), 1777-1783. doi:10.1176/appi.ajp.163.10.1777
- Haller, M., Angkaw, A. C., Hendricks, B. A., & Norman, S. B. (2016). Does reintegration stress contribute to suicidal ideation among returning veterans seeking PTSD treatment?. *Suicide And Life-Threatening Behavior*, *46*(2), 160-171. doi:10.1111/sltb.12181
- Harris, K.M., C.T. Halpern, E. Whitsel, J. Hussey, J. Tabor, P. Entzel, and J.R. Udry. 2009. The National Longitudinal Study of Adolescent to Adult Health: Research Design. URL: <http://www.cpc.unc.edu/projects/addhealth/design>.
- Hoge, C.W., McGurk, D., Thomas, J.L., Cox, A.L., Engel, C.C., & Castro, C.A. (2008). Mild traumatic brain injury in U.S. soldiers returning from Iraq. *New England Journal of Medicine*, *358*, 453–463. Retrieved from <http://www.nejm.org/>
- Hoge, C.W., Terhakopian, A., Castro, C.A., Messer, S.C., & Engel, C.C. (2007). Association of posttraumatic stress disorder with somatic symptoms, health care visits, and absenteeism among Iraq war veterans. *American Journal of Psychiatry*, *164*, 150–153. Retrieved from <http://ajp.psychiatryonline.org/>
- Jackson, K. M. (2009). Strengthening the Yellow Ribbon Reintegration Program: Common Challenges and Policy Options to Assist Returning Reservists, A Study Conducted for Iraq and Afghanistan Veterans of America (IAVA). *University of California Berkeley*.
- LaMotte, A. D., Taft, C. T., Weatherill, R. P., Casement, M. D., Creech, S. K., Milberg, W. P., & McGlinchey, R. E. (2017). Sleep problems and physical pain as moderators of the

- relationship between PTSD symptoms and aggression in returning veterans. *Psychological Trauma: Theory, Research, Practice, And Policy*, 9(1), 113-116.
doi:10.1037/tra0000178
- McLay, R. N., Klam, W. P., & Volkert, S. L. (2010). Insomnia is the most commonly reported symptom and predicts other symptoms of post-traumatic stress disorder in U.S. service members returning from military deployments. *Military Medicine*, 175(10), 759-762.
doi:10.7205/MILMED-D-10-00193
- Maguen, S., Lucenko, B. A., Reger, M. A., Gahm, G. A., Litz, B. T., Seal, K. H., & ... Marmar, C. R. (2010). The impact of reported direct and indirect killing on mental health symptoms in Iraq War veterans. *Journal Of Traumatic Stress*, 23(1), 86-90.
- Maguen, S., Luxton, D. D., Skopp, N. A., Gahm, G. A., Reger, M. A., Metzler, T. J., & Marmar, C. R. (2011). Killing in combat, mental health symptoms, and suicidal ideation in Iraq war veterans. *Journal Of Anxiety Disorders*, 25(4), 563-567.
doi:10.1016/j.janxdis.2011.01.003
- Marek, L. I., & D'Aniello, C. (2014). Reintegration stress and family mental health: Implications for therapists working with reintegrating military families. *Contemporary Family Therapy: An International Journal*, 36(4), 443-451. doi:10.1007/s10591-014-9316-4
- Mumola, C. J. 2000. Veterans in Prison or Jail. US Department of Justice. NCJ 178888.
<http://bjs.ojp.usdoj.gov/content/pub/pdf/vpj.pdf> (accessed January 11, 2010).

National Institute of Mental Health (2017). Alcohol Facts and Statistics. Retrieved February 3, 2017, from

<https://pubs.niaaa.nih.gov/publications/AlcoholFacts&Stats/AlcoholFacts&Stats.pdf>.

Pigeon, W. R., Britton, P. C., Ilgen, M. A., Chapman, B., & Conner, K. R. (2012). Sleep disturbance preceding suicide among veterans. *American Journal Of Public Health, 102*(Suppl 1), S93-S97. doi:10.2105/AJPH.2011.300470

Powell, M. A., Corbo, V., Fonda, J. R., Otis, J. D., Milberg, W. P., & McGlinchey, R. E. (2015). Sleep quality and reexperiencing symptoms of PTSD are associated with current pain in U.S. OEF/OIF/OND veterans with and without mTBIs. *Journal Of Traumatic Stress, 28*(4), 322-329. doi:10.1002/jts.22027

Raskind, M.A., Peskind, E.R., Hoff, D.J., Hart, K.L., Holmes, H.A., Warren, D., y McFall, M.E. (2007). A parallel group placebo controlled study of prazosin for trauma nightmares and sleep disturbance in combat veterans with post-traumatic stress disorder. *Biological Psychiatry, 61*, 928–934. doi:10.1016/j.biopsych.2006.06.032

Ross, A. M., & DeVoe, E. R. (2014). Engaging military parents in a home-based reintegration program: A consideration of strategies. *Health & Social Work, 39*(1), 47-54. doi:10.1093/hsw/hlu001

Sayer, N. A., Noorbaloochi, S., Frazier, P., Carlson, K., Gravely, A., & Murdoch, M. (2010). Reintegration problems and treatment interests among Iraq and Afghanistan combat veterans receiving VA medical care. *Psychiatric Services, 61*(6), 589-597. doi:10.1176/appi.ps.61.6.589

- Sayer, N. A., Frazier, P., Orazem, R. J., Murdoch, M., Gravely, A., Carlson, K. F., & ...
Noorbaloochi, S. (2011). Military to Civilian Questionnaire: A measure of
postdeployment community reintegration difficulty among veterans using Department of
Veterans Affairs Medical Care. *Journal Of Traumatic Stress, 24*(6), 660-670.
doi:10.1002/jts.20706
- Sayer, N. A., Carlson, K. F., & Frazier, P. A. (2014). Reintegration challenges in U.S. service
members and veterans following combat deployment. *Social Issues And Policy Review,*
8(1), 33-73. doi:10.1111/sipr.12001
- Scherrer, J. F., Widner, G., Shroff, M., Matthieu, M., Balan, S., van den Berk-Clark, C., & Price,
R. K. (2014). Assessment of a postdeployment Yellow Ribbon Reintegration Program for
National Guard members and supporters. *Military Medicine, 179*(11), 1391-1397.
doi:10.7205/MILMED-D-14-00094
- Short, N. A., Babson, K. A., Schmidt, N. B., Knight, C. B., Johnson, J., & Bonn-Miller, M. O.
(2016). Sleep and affective functioning: Examining the association between sleep quality
and distress tolerance among veterans. *Personality And Individual Differences, 90*247-
253. doi:10.1016/j.paid.2015.10.054
- Strong, J., Ray, K., Findley, P. A., Torres, R., Pickett, L., & Byrne, R. J. (2014). Psychosocial
concerns of veterans of Operation Enduring Freedom/Operation Iraqi Freedom. *Health &
Social Work, 39*(1), 17-24. doi:10.1093/hsw/hlu002
- Wells, T. S., LeardMann, C. A., Fortuna, S. O., Smith, B., Smith, T. C., Ryan, M. K., & ...
Blazer, D. (2010). A prospective study of depression following combat deployment in

support of the wars in Iraq and Afghanistan. *American Journal Of Public Health*, 100(1), 90-99. doi:10.2105/AJPH.2008.155432

Wright, K. M., Britt, T. W., Bliese, P. D., Adler, A. B., Picchioni, D., & Moore, D. (2011).
Insomnia as predictor versus outcome of PTSD and depression among Iraq combat
veterans. *Journal Of Clinical Psychology*, 67(12), 1240-1258. doi:10.1002/jclp.20845

APPENDICES

Appendix of measures

Gender

- Male
- Female
- Unidentified

Age

- 18 - 24
- 25 - 34
- 35 - 44
- 45 - 54
- 55 - 64
- 65 - 74
- 75 - 84
- 85 or older

What is your highest level of education?

- High school or GED
- Some college or technical school
- Bachelor's degree
- Master's degree
- Doctoral degree

What branch of military did you serve under?

- Army
- Navy
- Marine Corps
- Coast Guard
- Air Force

Were you in the reserves?

- Yes
- No

Which deployment era were you part of?

- Operation Iraqi Freedom (2002-2011)
- Operation Enduring Freedom (2001-2013)
- Operation Freedom's Sentinel (2015-Present)
- Operation New Dawn (2010-Present)
- Operation Inherent Resolve (2014-Present)
- Persian Gulf War (1990-1991)
- Vietnam War (1961-1975)
- Other _____
- None of the above

How long were you in the military?

- Less than 2 years
- 2-5 years
- 5-10 years
- 10+ years

What was your discharge status?

- General
- Honorable
- Other than Honorable
- Dishonorable
- Bad Conduct
- Officer Discharge
- Entry Level Separation
- Other

Where you in a combat position?

- Yes
- No

How many times have you been deployed overseas?

- Never
- Once
- Twice
- More than three times

Were you deployed to a combat zone?

- Yes
- No
- Never deployed

During your deployment, did you experience any of the following:

	Yes	No
Become wounded	<input type="radio"/>	<input type="radio"/>
See the bodies of dead soldiers or civilians	<input type="radio"/>	<input type="radio"/>
Witness anyone being killed	<input type="radio"/>	<input type="radio"/>
Discharge a weapon	<input type="radio"/>	<input type="radio"/>

Since leaving the military, how often do you have trouble falling asleep?

- Never in the past 4 weeks
- Less than once a week
- 1-2 times per week
- 3-4 times per week
- 5 or more times per week

Since leaving the military, how often do you have trouble staying asleep?

- Never in the past 4 weeks
- Less than once a week
- 1-2 times per week
- 3-4 times per week
- 5 or more times per week

Have you ever been diagnosed with:

	Yes	No
PTSD	<input type="radio"/>	<input type="radio"/>
Depression	<input type="radio"/>	<input type="radio"/>
Anxiety	<input type="radio"/>	<input type="radio"/>
Panic Disorder	<input type="radio"/>	<input type="radio"/>

Have you ever seriously considered or thought about committing suicide?

- Yes
- No

Have you ever made a plan to commit suicide?

- Yes
- No

Since leaving the military, have you been arrested?

- Yes
- No

If yes, how many times have you been arrested?

- Never
- Once
- Twice
- Three times
- Four or more times

Since leaving the military, have you used illegal drugs?

- Yes
- No

How often do you drink alcohol?

- Never in the past 4 weeks
- Less than once a week
- 1-2 times per week
- 3-4 times per week
- 5 or more times per week
- Everyday

Have you ever been divorced?

- Yes
- No

Are you currently in a relationship?

- Yes
- No

Have you been in a relationship where your partner has been violent towards you (threatened you, physically hit you)?

- Yes
- No

Have you been in a relationship where you have been violent towards your partner (threatened them, physically hit them)?

- Yes
- No

Over the past 30 days, how much difficulty have you had with each of the following:

	Extreme / Cannot do	Severe	Moderate	Mild	None
Confiding or sharing personal thoughts and feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dealing with strangers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making new friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keeping up nonmilitary friendships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keeping up military friendships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Getting along with relatives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Getting along with your spouse or partner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Getting along with children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Finding or keeping a job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Doing what is needed for your job or school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking care of chores at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking part in community activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Belonging in "civilian" society	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking care of health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enjoying free time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Finding purpose or meaning in life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Have you ever sought services or assistance from:

	Yes	No
VA	<input type="radio"/>	<input type="radio"/>
Mental Health Professional	<input type="radio"/>	<input type="radio"/>
General Physician	<input type="radio"/>	<input type="radio"/>
Physical Therapist	<input type="radio"/>	<input type="radio"/>
Neurologist	<input type="radio"/>	<input type="radio"/>

Did your commanding officer recommend any reintegration or separation programs to you?

- Yes
- No

If yes, which program(s) did they recommend?

Prior to your separation, would you agree with the following:

	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree	Not Applicable
I felt prepared for the transition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was satisfied with the reintegration process prior to separation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My leadership prioritized supporting the mental health of soldiers during reintegration before separation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My leadership prioritized supporting the mental health of soldiers during reintegration before separation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What changes have you experienced since leaving the military?

What would you say is the biggest challenge you faced during reintegration?

What military or separation services did you receive after your discharge?

- Employment Assistance/Vocational Training
- Housing
- Mental Health Services
- Substance Use Services
- Physical Health Services
- Other _____

Which of the following services did you perceive to be helpful?

- Employment Assistance/Vocational Training
- Housing
- Mental Health Services
- Substance Use Services
- Physical Health Services
- Other _____
- None of the above

Why were these services helpful?

What services do you think would have been beneficial after discharge?