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# ASSESSING THE EFFECT OF SENSE OF COMMUNITY ON MILITARY VETERAN COMMUNITY REINTEGRATION DIFFICULTIES

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I am submitting herewith a dissertation written by Veliska Joy Thomas entitled "ASSESSING THE EFFECT OF SENSE OF COMMUNITY ON MILITARY VETERAN COMMUNITY REINTEGRATION DIFFICULTIES." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Social Work.

Stan L. Bowie, Major Professor

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(Original signatures are on file with official student records.)

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ASSESSING THE EFFECT OF SENSE OF COMMUNITY ON MILITARY  
VETERAN COMMUNITY REINTEGRATION DIFFICULTIES

A Dissertation Presented for the  
Doctor of Philosophy  
Degree  
The University of Tennessee, Knoxville

Veliska Joy Thomas  
May 2014

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**DEDICATION**

This dissertation is dedicated to my loving husband Jeff and our beautiful daughter Sarah Elise.  
Thank you for seeing me through this challenging journey.  
It was your love, perseverance, and faith that got me through this.  
I love you both so much!

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Business Owners: Together Still Serving America” (para. 1, TVBA, 2014). Thank you for the privilege of letting me share in your mission.

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## ABSTRACT

Sense of Community (SOC) has been the theoretical underpinnings of practice models with veterans returning from the wars in Iraq and Afghanistan (Amdur et al. 2011; Bowen, Martin, Mancini & Nelson, 2000; Hollingsworth, 2011; U.S. Department of Veterans Affairs). The current study addresses the need for empirical evidence to support this practice intervention by testing the mediation role of SOC on the relationship between Veteran Community Reintegration (VCR) risk factors and VCR difficulties. Secondary data from a cross-sectional survey consisting of  $N=131$  military veterans in the southern region of the United States was used to test this model. Confirmatory Factor Analysis (CFA) resulted a model which did not fit the data well:  $\chi^2$  [Chi square] ( $df = 761, N=131$ ) = 1480.072,  $p = .000$  RMSEA = .085, PCLOSE = .000 TLI = .721 & CFI = .754. Consequently a conservative path analysis was chosen. The path model also failed to fit the data well:  $\chi^2 = 46.016$  (4  $df, N = 131$ ),  $p = .000$ , CFI = .744, RMSEA = .284, PCLOSE = .000, TLI = -.345). Model fit indices suggest limitations to results from this study. The path from depression symptoms to SOC ( $B = -.407$  ( $\beta$  [Beta] =  $-.278$ ),  $SE = .154, p = .008$ ), the path from suicidal ideation to SOC ( $B = 1.027$  ( $\beta = .207$ ),  $SE = .443, p = .020$ ), and the path from SOC to VCR difficulties ( $B = .974$  ( $\beta = .488$ ),  $SE = 6.039, p < .001$ ) were all statistically significant. These results suggest a possibility that SOC has a negative mediating effect on the relationship between depression symptoms and VCR difficulties and a positive mediating effect on the relationship between suicidal ideation and VCR difficulties. Implications of study findings for social work practice and future research directions are discussed.

Keywords: *military veteran, Sense of Community, Community Reintegration, depression, PTSD, suicidal ideation*

## Table of Contents

Chapter 1: Introduction	1
Problem and Significance	1
Prevalence and Scope of the Problem	3
Outgroups Affected by Veteran Community Reintegration Issues	9
Veteran Community Reintegration and the Code of Ethics	11
New Intervention Models to Ameliorate Veteran Community Reintegration Issues	13
Purpose of the Study	14
Chapter 2: Literature Review	16
Conceptual Context	17
Demographic Background	22
Historical Context	29
Political Context	44
Summary of Data-Based Studies	51
Theoretical Perspectives	77
Methodological Approaches in Previous Research	83
Chapter 3: Method	111
Research Design	111
Sampling Strategy	111
Measurement	112
Data Analysis	119
Chapter 4: Results	124
Background	124
Descriptive statistics of key variables	135
Results	152
Chapter 5: Discussion	173
References	180
Appendix	216
Acronyms	217
Veteran Community Reintegration Survey	222
Vita	234

### List of Tables

Table 1. U.S. Census Bureau (2011) Demographic data from 1990-2010	26
Table 2. Measurement Detail and Reliability in Previous Research	119
Table 3. Demographic Characteristics of Veteran Participants: Relationship Status, Housing/ Income, and Access (Thomas & Bowie, 2013)	131
Table 4. Demographic Characteristics of Veteran Participants: Education, Employment, Veteran Status and VA Services (Thomas & Bowie, 2013)	133
Table 5. Demographic Characteristics of Veteran Participants: Military Service (Thomas & Bowie, 2013)	134
Table 6. Military to Civilian Questionnaire: Results from Veteran Participants (Sayer et al., 2010 & 2011; Thomas & Bowie, 2013)	138
Table 7. Brief Sense of Community Scale: Results for Veteran Participants (Peterson et al., 2008; Thomas & Bowie, 2013)	145
Table 8. Primary Care PTSD Screen: Results for Veteran Participants (Prins et al., 2003; 2004; Thomas & Bowie, 2013)	147
Table 9. Ultra-Short-Form Suicidal Ideation Thinking Measure & Suicide Behavior Questionnaire Veteran Participants' Suicidal Ideation (Nugent, 2005; Osman et al., 1999; Thomas & Bowie, 2013)	149
Table 10. Descriptive Statistics from Center for Epidemiologic Studies Short Depression Scale (CES-D10) scale among Veteran Participants in current study	155
Table 11. Means and Zero-Order Correlations among Key Variables in current study (N=131)	157
Table 12. Reliability Statistics for Scales & Items in current study	157
Table 13. Distribution of scores on Key Variable Scales (Nugent, 2005; Osman et al., 1999; Peterson et al., 2008; Prins et al., 2003; Radloff, 1977; Thomas & Bowie, 2012; Zhang, 2012)	164
Table 14. Parameter Estimates in the Measurement Model VCR Risk Factors-SOC-VCR Difficulties	169
Table 15. Parameter estimates from the SOC mediation model for the effect VCR Risk Factors	172
Table 16. Effect decomposition of the SOC mediation model for the effect of VCR Risk Factors (depression symptoms, suicidal ideation, PTSD symptoms, and employment status) on VCR Difficulties	172

### List of Figures

Figure 1. Gender Differences in U.S. Military Veterans	27
Figure 2. Ethnic Diversity in U.S. Military Veterans	28
Figure 3. Hypothesis: SOC mediates the relationship between VCR risk factors and VCR difficulties	110
Figure 4. VCR Risk Factors-SOC-VCR Difficulties Model	123
Figure 5. Veteran Participant Description: Age	125
Figure 6. Veteran Participant Description: Gender	126
Figure 7. Veteran Participant Description: Race/Ethnicity	127
Figure 8. Veteran Participant Description: Community Connection	129
Figure 9. Veteran Participants Needs Fulfillment in their Communities	140
Figure 10. Veteran Participants Membership in their Communities	141
Figure 11. Veteran Participants Sense of Influence in their Communities	142
Figure 12. Veteran Participants Sense of Connection to their Communities	144
Figure 13. How often Veteran Participants Thought about Suicide	150
Figure 14. How often Veteran Participants Thought about Killing Themselves in the Past Year	151
Figure 15. Frequency Distribution of CESD-10	154
Figure 16. Frequency Distribution of CESD-10	159
Figure 17. Frequency Distribution of USSTM & SBQR 1 item each in VCR Survey	160
Figure 18. Frequency Distribution of PC-PTSD	161
Figure 19. Frequency Distribution of BSCS	162
Figure 20. Frequency Distribution of M2CQ	163
Figure 21. Estimated Measurement Model Testing the Relationship Between Risk Factors for VCR, SOC, and VCR Difficulties. Model fit indices: $\chi^2 (761, N=131) = 1480.072, p = .000$ RMSEA = .085, PCLOSE = .000 TLI = .721 and CFI = .754. All estimates are standardized.	167
Figure 22. VCR Risk Factors-SOC-VCR Difficulties Simple Path Model Results ( $\chi^2 = 46.016 (4, N = 131), p = .000, CFI = .744, RMSEA = .284, PCLOSE = .000, TLI = -.345$ )	171

## **Chapter 1: Introduction**

### **Problem and Significance**

As the wars in Iraq and Afghanistan wind down, 2.3 million service members are returning to their communities. Approximately 1.64 million of these individuals have been deployed at an average rate of 2.2 times for lengths of 12-15 months. An estimated 10-20% of Iraq and Afghanistan deployments consist of National Guard and Reservist (Duckworth, 2009; Waterhouse & O'Bryant, 2008; U.S. Census Bureau [USCB], 2011). These service members have a higher risk of mental health problems and face more frequent military to civilian community transitions (Schell & Marshal, 2008, Werber et al., 2008). Approximately 70% of veterans surveyed from these wars report difficulty transitioning from military to civilian communities.

Veterans from the wars in Iraq and Afghanistan face a range of community reintegration issues as they return to over 4,000 communities across the nation (U.S. Department of Defense [DoD], 2011). In their personal life, 30% of veterans deal with the 'invisible wounds of war' such as Post-Traumatic Stress Disorder (PTSD), depression, or Traumatic Brain Injury (TBI) (Adamson et al., 2008). Among those who are at risk for losing their lives after returning home, 4-46% of veteran surveyed reported coping with a range of suicidal issues (Rudd, Goulding, & Bryan, 2011). Approximately 12% of veterans surveyed reported involvement with the criminal justice system and 56% of the charges were alcohol/drug related. In their personal lives, 65% of veterans reported their deployment and return caused strain in their relationships, with 31% of

these relationships ending in separation or divorce (Iraq & Afghanistan Veterans of America [IAVA], 2012).

In addition to the emotional challenges of community reintegration, veterans are returning to an economy where jobs are scarce and they are disproportionately at risk for unemployment (12.1% vs. 8.3% of the general population) (U.S. Bureau of Labor & Statistics [USBLS], 2012). Among the most vulnerable are veterans remain disengaged at the fringes of our society. According to the National Coalition for Homeless Veterans (NCHV) (2012), 107,000 veterans (or 23% of the U.S. homeless population) are homeless per night.

Community reintegration difficulties among Iraq and Afghanistan veterans have only recently started to be measured (Blais, Thompson & McCreary, 2009). Sayer et al. (2011) based their measurement tool on previous community reintegration research among individuals with PTSD and brain injury (Laffaye, Cavella, Drescher, & Rosen, 2008; McColl et al., 1998). The authors developed the following domains to capture the challenges veterans face as they return to their communities: (1) *Interpersonal relationships with family, friends and peers*; (2) *Productivity at work, school or home*; (3) *Community participation*; (4) *Self-care*; (5) *Leisure*; and, (6) *Perceived meaning in life*. In their study of Post 9-11 Iraq and Afghanistan veterans who receive VA services, Sayer et al. (2011) identified mental illness and unemployment status as two risk factors for Veteran Community Reintegration (VCR) difficulties.

Based on the problems veterans are facing as they return to their communities, many support programs provided by the Veterans Administration (VA) and other veteran support agencies have an outcome goal of increasing community engagement among the veterans and their communities (Amdur et al. 2011; U.S. Department of Veterans Affairs [USDVA], 2012a).



From the literature, Sense of Community (SOC) has been defined SOC as “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members needs will be met by their commitment to be together”( McMillan & Chavis,1986, p. 9). The SOC framework has been used to develop a framework for practice models with the military population; conclusions from these studies suggest the need for future research to test the influence of community engagement on veteran reintegration (Bowen, Martin, Mancini & Nelson, 2000; Hollingsworth, 2011). Therefore, the proposed study will examine the mediation role of SOC on the relationship between veteran community reintegration risk factors (PTSD, depression, and unemployment) and VCR difficulties.

### **Prevalence and Scope of the Problem**

Since 2001, approximately 2.3 million individuals have served in the U.S. military. At least a million service members have been separated from the military (Amdur et al., 2011; USCB, 2011). According to Hazle, Wilcox and Hassan (2012) veterans and their families face reintegration risk factors related to frequent relocation, lack of access and utilization of resources, single parenthood and divorce, unemployment, lack of support for their children, physical and psychological injuries, being in the National Guard/Reserve, and Military Sexual Trauma (MST).

**Employment.** According to Flavin (2011), there are currently 1 million unemployed veterans. In 2012, the USBLS (2012) reported a 12.1 % unemployment rate among veterans (4% higher than that of the general population). Sayer et al. (2011) found veterans who were unemployed reported more community reintegration difficulties than those who were not. In a

nationwide survey of members from the IAVA (2012), members reported employment and jobs to be the top issue facing veterans. Seventeen-percent of members reported being unemployed, 33% are seeking alternative employment and 66% of veterans surveyed believe that their skills are not being used optimally in their current place of employment.

**Homelessness.** In addition to high rates of unemployment, many veterans are facing homelessness. The NCHV (2011) reports 45% of veterans surveyed stated they needed help finding a job, 37% needed help finding housing, and 25% sought homeless services through the VA. The VA estimates 107,000 veterans are homeless each night in the U.S. Veterans make up between a quarter to one-third of the adult homeless population. An estimated 44,000 to 66,000 veterans are considered to be chronically homeless. Although African Americans/Blacks account for only 12.8% of the general population and those who consider themselves Latino/Hispanic account for 15.4% of the general population, these ethnic groups disproportionately represent approximately 56 % of the veteran homeless population. Women veterans with children who are homeless are disproportionately high among veterans from the Iraq and Afghanistan wars. Women veterans who are homeless are more likely to have mental illness or a history of sexual trauma than their male counterparts (NCHV, 2011; United States Interagency Council on the Homeless [USICH], 2013).

**Service-connected disabilities.** The federal Radiation-Exposed Veterans Compensation Act (1988) allows disability status for veterans who reported radiation exposure — in particular those who claimed exposure to the WWII bombing of Hiroshima and Nagasaki. The VA identified the following cancers as service-connected disabilities for veterans from this period: (1) bile ducts; (2) bone; (3) brain; (4) breast; (5) colon; (6) esophagus; (7) gall bladder; (8) lung;

(9) ovary; (10) pancreas; (11) pharynx; (12) primary liver (except if cirrhosis or hepatitis B is indicated); (13) salivary gland; (14) small intestine; (15) stomach; (16) thyroid; (17) urinary tract; (18) bronchioloalveolar carcinoma; (19) leukemia; (20) lymphoma; (21) multiple myeloma (Alpha Veterans Disability Advocates, 2013; USDVA, 2011a).

By 1972 308,000 Vietnam veterans were documented with service-related disabilities. Medical treatment and airlifting advances increased the number of survivors during this war. Faster modes of mass transportation also returned veterans from the combat zones to civilian society in a shorter period of time than before. Vietnam veterans reported medical issues resulting from exposure to herbicides used during the war. Congress responded by passing the Agent Orange Act (1991), which provided disability status, for Vietnam veterans whose medical conditions were a result of Agent Orange exposure. In 1993, all Vietnam veterans suffering from Hodgkin's disease or porphyria cutanea tarda became eligible for disability status. Blue Water Veterans serving on ships off the Vietnam coast, veterans who served near Thailand's U.S. military base, bases outside of Vietnam that stored herbicides, and those who flew C-123 planes after the war are also eligible for service-connected disability status (USDVA, 2013a; USDVA, 2011a). In terms of mental injuries, the National Vietnam Veterans Readjustment Survey (NVVRS; Kulka et al., 1990) found that 30.9% of Vietnam veterans surveyed returned from war with PTSD, with 15% of them reporting current symptoms. According to McNally, the number of veterans receiving disability compensation for PTSD from the Vietnam War increased by 79.5 percent between fiscal years 1999 to 2004 (Cromie, 2006).

Before the Persian Gulf War ended, veterans reported clusters of symptoms (fatigue, skin rash, memory loss, muscle/joint pain, and so forth) with no identifiable cause. In 1993, Congress

responded by mandating medical care for Gulf War veterans who had possibly been exposed to toxic substances or environmental hazards. Congress mandated compensation for these veterans in 1994. In 2003, approximately 161,000 Gulf War veterans were receiving disability benefits, and 209,000 filed VA claims (USDVA, 2011a; World Net Daily [WND], 2003).

The current conflicts in Iraq and Afghanistan have seen an increase in TBI and a decrease in injuries seen in previous wars (USDVA, 2011b). Advances in medicine have allowed for prosthetics to allow many troops the ability to “stay in uniform” (para 3). Another way the military is accommodating service members with disabilities is building special needs housing on military bases such as the Wounded Warrior Home at the Army's Fort Belvoir in Virginia (Montagne, 2012).

**Mental illness.** The NCHV (2011) cites the prevalence of alcohol and drug problems and mental health concerns as other indicators of readjustment issues. In a study of Iraq and Afghanistan veterans, among those who reported interaction with the criminal justice system, 51% reported alcohol-related charges and 5% reported drug-related charges (IAVA, 2012). In a study conducted by USICH (2013), 70% of homeless veterans reported experiencing alcohol, drug, or mental health problems. Of homeless veterans, males who are more likely to have problems with substance abuse than females.

According to a post deployment assessment administered as military personnel returned home, the DOD cited only 3% of soldiers who admitted to having serious mental health problems on post-deployment assessments. This percentage can be misleading since the Army's study of earlier periods of the Iraq war, found 17% of soldiers surveyed to be suffering from symptoms of depression, anxiety, and PTSD. The VHA found that approximately 16% of the

OIF and OEF veterans seeking care from the VA have been diagnosed with possible symptoms of PTSD (CRS, 2011). In a study conducted in 2005, 20% of VA acute mental health patients who were inpatient were homeless (USICH, 2013).

From an historical perspective, Wormer (2011) reports approximately 30% of Vietnam veterans were diagnosed with PTSD. Linking this to more recent studies, the author cites a 2003 study by Walter Reed Army Institute of Research; approximately 17% of veterans had symptoms of anxiety, PTSD, or depression. Post-Deployment Health Reassessments (PDHRA) recently found 38% of “regular soldiers” (para. 5), 31% of Marines and 49% of National Guard experienced psychological difficulties. Among Iraq and Afghanistan veterans who participated in a study conducted by Rand (Tanielian & Jaycox, 2008), 14% met screening criteria for major depression, 14% met screening criteria for PTSD, and 19% reported probable TBI while they were deployed. Data analyses indicated a high association between combat-exposure and major depression. Authors note that major depression is not generally categorized as a combat-related injury. They contend that it should be classified as a combat-related injury based on the study’s empirical data.

There is concern about underestimating trends of post deployment reintegration issues, due to the issue of underreporting. According the VHC in 109th Congress (CRS, 2011), service members face stigma and worry of negative consequences if they report PTSD symptoms. In 2004, the GOA reported that the VA is unable to provide an accurate estimate of military personnel being treated for PTSD. The GOA urged the VA to assess whether it will be able to meet the increased need for services related treating PTSD in returning and readjusting combat veterans.

According to the Mental Health Advisory Team (MHAT) IV (2006), between 38 to 42% of service members screening positive for mental health problems sought treatment.

Approximately 36 to 59% of these service members reported the following reasons prevented them from seeking treatment: (1) being treated differently by leadership; (2) being seen as weak; (3) having less confidence placed in them by colleagues; and (4) having their career harmed.

In June, 2012, the Pentagon announced suicide death rate (154, that year) of active military service members was higher than the rate of combat deaths. This was the highest suicide rate reported since the beginning of the wars in Afghanistan and Iraq (Williams, 2012). The 2004 Special Committee Report (to the 109th Congress) revealed that Iraq veterans had a higher suicide rate than that of first Gulf War and the Vietnam War veterans. This report concluded that the VA needs to work towards meeting the various needs of combat veterans from all the wars (CRS, 2011).

In testimony before the Senate Veteran's Affairs committee, Executive Director of Rieckhoff of the Iraq and Afghanistan Veterans Association (IAVA) suggested that active-service member suicides are "the tip of the iceberg" (Banai, 2011, para. 4). The director cited the organization's survey of 160,000 participants. Results indicated that 37% of participants knew another service member who had committed suicide (IAVA, 2012). On CNN, Rieckhoff urged the Department of Defense (DoD) and the VA to track veteran suicides (IAVA, 2013). The director suggested many of the reasons mentioned above may be reasons for the increase in military suicides. Based on results of their member survey, IAVA created a policy agenda to address issues veterans face as they cope with the "invisible injuries" (IAVA, 2012, p. 3) of war:

(1) lack of qualified mental health professionals; (2) stigma associated with counseling; (3) family stress; and (4) economic hardships, such as unemployment and homelessness.

### **Outgroups Affected by Veteran Community Reintegration Issues**

**Women.** According to Wormer (2011), PTSD rates among women veterans are not known. The author reports that Gulf War studies suggest female military personnel were more likely than males to report PTSD symptoms. On the other hand, the Pentagon Task Force reported that a male is “three time more likely” (para. 4) to be given a PTSD diagnosis than a female veteran with similar symptoms. Based on this information, it appears that further research in the area of military-related PTSD needs to substantiate if there are differences between how men and women experience war-related trauma.

According to Jones (2011), more than 200,000 women served in the most recent wars (OEF/OIF/OND). The number of homeless and unemployed female veterans (including those with children) has been rising; currently representing 18% of the homeless population in the Fort Bragg area of Fayetteville, North Carolina. Nationwide statistics report that female veterans make up approximately 3-6% of the homeless veteran population. As with other homeless statistics, there is a likelihood of underrepresentation in these estimates.

### **Diverse groups**

Findings from the NVVRS (African American PTSD Association, 2011; Kulka et al., 1990) reveal that African American/Black and Latino/Hispanic veterans had significantly higher rates of reintegration difficulties and PTSD than their Caucasian counterparts. In 1997, Senator Matsunaga extended the NVVRS to include Native Americans, Japanese Americans, and

Hawaiians who served in Vietnam (USDVA, 2011d). Findings from the Matsunga Vietnam Veterans Project (National Center for Post-Traumatic Stress Disorder, 1997) conclude that veterans are at risk for PTSD even decades after being exposed to war zones and military stressors. Native American and Hawaiian veterans reported higher levels of exposure to war stress and higher rates of PTSD than Japanese American and Caucasian veterans. More recently, Sayer et al. (2011) found “Non-white” (p. 2) Iraq and Afghanistan combat veterans receiving VA services reported higher levels of community reintegration difficulties than their Caucasian counterparts. Findings from past and recent research suggest the need for further research to examine risk factors related to ethnicity and veteran community reintegration.

Membership in the sexual minority community may also increase one’s risk of VCR difficulties. The Massachusetts Behavioral Risk Factor Surveillance Survey (BRFSS) revealed higher rates of health risk factors among veterans who were sexual minority women than their heterosexual counterparts. Findings suggest that male and female veterans who self-reported as sexual minority had less opportunity for social and emotional support as well as higher rates of suicidal ideation (Blosnich, Bossarte, & Silenzio, 2012). A qualitative study of gay and lesbian military personnel (Estes, 2005) indicated that sexuality did not have an effect on their quality of duty performance or the duties to which the individuals were assigned. This being said, of those interviewed many discussed the struggles they faced in to keeping their sexual identities secret prior to the 2011 repeal of the Don’t Ask Don’t Tell (DADT) Act of 1993.

In September 20, 2011, the DADT ban against Gay and Lesbian service members was lifted, resulting from the Don’t Ask Don’t Tell Repeal Act (2010) and subsequent certification by President Obama (Martin, 2011; SLDN, 2012; The Library of Congress, 2013). Prior to this,



the LGBTQ population has been openly discriminated against. Many have been discharged under this policy for reportedly participating in homosexual activities, and others have been forced to lead a secret/dual life in order to remain active in the U.S. military. Based on the above information, it appears that sexual-minority veterans face even more challenges coping with discriminations they faced in the military as they transition back into their communities.

### **Veteran Community Reintegration and the Code of Ethics**

The National Association of Social Workers (NASW, 2008) Code of Ethics can be used as a framework in assessing the importance of social workers' response to veterans returning to their communities from war. In terms of *service*, the Code of Ethics (NASW, 2008) states that "social workers' primary goal is to help people in need and address social problems" (para. 15). Military personnel returning from war are individuals in need of support as they transition back to their culture of origin.

With regards to social problems, 2.4 million service members are returning from the longest war in United States' history with approximately 2 million deployments (Hazle et al., 2012; IAVA, 2012). More than half of the veterans surveyed in 2012 indicated that they had been deployed at least once during the recent wars in Iraq and Afghanistan. According to Werber et al. (2008), 26% of service members and 39% of spouses in the National Guard and Reserve reported emotional or mental health problems. These individuals have been "pulled out of their lives and jobs and placed in a combat situation. Active duty soldiers generally see more than one, sometimes 3-4 tours in combat (M. Beardon, personal communication, August 29, 2011). Social

workers and American society have an obligation to take steps to address unintended consequences of these wars.

In terms of *social justice* (NASW, 2008), social workers can apply this principle by working to understand and advocate for policies which address the needs of vulnerable or oppressed veteran populations such as women, ethnically “minority” groups, and sexual “minority” groups. Studies on veterans from the Iraq and Afghanistan war provide empirical evidence that suggests reintegration disparities among these populations (Blosnich et al., 2012; Sayer et al., 2011; Wormer, 2011). Hobbs (2008) suggests that individuals belonging to the “transracial” (p.337) culture of veteran have also been subjected to inequities in health care and services.

NASW (2008) defines the principle of *dignity and worth of a person* as the need for social workers to treat individuals in a culturally competent manner. Veterans are military service members returning to their home communities and cultures after taking on the military culture. They share knowledge and experiences which are often plagued with trauma (Post-traumatic Stress Disorder [PTSD], Military Sexual Trauma [MST]) and grounded the daily routine of service work and life. They benefit from the educational, emotional, financial, and political resources provided to them by older generations of veterans and they have to work to accommodate this culture into their new lives (Hobbs, 2008). Approximately 22 million Americans are a part of this culture transcends socioeconomic status and ethnic identity (USCB, 2011). From the Vietnam generation of veterans to the new generation of veterans from Iraq and Afghanistan, the veteran population has high rates of PTSD as well as co-occurring issue such as suicidal issues, substance abuse, TBI, MST, sleep problems, and other physical health problems

(Gradus, 2011; National Center for PTSD, 2012). It is important that social workers, programs that serve returning veterans and American society take into consideration the diverse and complex nature of the veteran's background and focus on strengths in these cultures to meet the needs of this population.

NASW (2008) stresses the *importance of human relationships* as a “vehicle of change” (para. 19) in order to support restoration to the well-being of individuals, families and communities in society. There is a need for social workers and American society to utilize the strengths of communities in order to assist military personnel in their transitioning process back to their lives, families and communities. Bowen et al. (2000) used this theoretical framework to develop a model of increasing positive community results. This community capacity model suggests that social capital is made up of an individual's formal and informal networks. Hollingsworth (2011) suggests the importance of human relationships be harnessed by a CFT model based in efforts to assist veterans as they reintegrate back into their communities. Authors recommend future research to provide empirical support for this theoretical framework.

### **New Intervention Models to Ameliorate Veteran Community Reintegration Issues**

According to Amdur et al. (2011), many veterans returning from war and combat feel disconnected from the lives, families, friends, and communities they left behind. The authors suggest a need for social workers to create empirically-based interventions with this population “that model connection and integration” (p. 574). While these suggestions are based on social work values, there appears to be a lack of adequate data substantiating effective community support interventions with post-9/11 veterans (Fontana et al., 2010; Sayer et al., 2011).

Sense of Community (SOC) measures processes in community social organization (Cantillon, Davidson, & Schweitzer, 2003). McMillan and Chavis (1986) delineate the following components in their construct of SOC theory: (1) membership; (2) influence; (3) need fulfillment; and, (4) shared emotional connection. Bowen et al. (2000) applied this perspective to the military context for the purpose of developing a model of increasing positive community results. This community capacity model suggests that social capital (which will be considered SOC for the remainder of this proposal) is made up of an individual's formal and informal networks. SOC is then considered reciprocally related to community capacity that reciprocally mediates the relationship between SOC and community results. Hollingsworth (2011) suggest a CFT model based on the community capacity model to assist veterans and their families as they cope with deployment and return from their deployment. The author suggests the testing of this model to assess the influence of community engagement on adjustment levels of veterans and their families.

### **Purpose of the Study**

The general purpose of this study is to examine if Sense of Community (SOC) mediates the relationship between reintegration risk factors and overall Veteran Community Reintegration (VCR) difficulties. Expected outcomes from the current research include the provision of empirical information not currently available that test the influence of SOC on veteran community reintegration difficulties. Specifically, this study will seek to address the following objectives:

1. To understand the influence of PTSD symptoms, depression scores, suicidal ideation, and employment status on SOC
2. To understand the influence of PTSD, depression scores, suicidal ideation, and employment status on VCR difficulties
3. To test the model that Sense of Community (SOC) mediates the relationship between VCR risk factors (PTSD, depression, unemployment) and VCR difficulties

## Chapter 2: Literature Review

The purpose of this literature review is to integrate research knowledge and skills acquired through the University of Tennessee College of Social Work (CSW) Ph.D. Curriculum (2011) with literature in the area of veteran community reintegration. This section examines scholarship and research on of veteran community reintegration. It is approached first from a conceptual, historical and political context, then from a quantitative perspective (with national, state, and local indicators) and finally from a scientific perspective, culminating in the critical review of empirical studies in this area over the past 15 years. The second and third sections of this literature review provide an analysis of theories and methodologies used in the reviewed studies. Gaps in the literature will be explored and suggestions for future research will be discussed.

As mentioned above, community engagement or a veteran's SOC has been the theoretical underpinnings of numerous reintegration support programs provided by the VA and other veteran support agencies (Amdur et al., 2011; USDVA, 2011j). Researchers have developed a model of community capacity model for the purposes of practice with military service members (Bowen, et al., 2000; Hollingsworth, 2011). Conclusions from these studies suggest the need for future research to test the influence of community engagement on veteran reintegration.

First an operationalization of key variables and concepts is presented based on the literature reviewed in efforts to create unified constructs for assessing veteran reintegration issues (Rubin & Babbie, 2010). Next, a historical context of veteran reintegration issues is provided from an international to a local perspective, the VA's perspective as well as a veteran, scholar, and anti-war activist's perspective (Howardzinn.org, 2012; Negewo-Oda & White,

2011; Ray & Heaslip, 2011; USDVA, 2011j). This is followed by an analysis of the Vet Center program and policies related to reintegration issues on the state and federal level.

Recommendations are presented for further research based on reviewed literature.

## **Conceptual Context**

### **Key variables and terms.**

***Veteran.*** Amdur et al. (2011) defines a veteran as “a person who served in active military service and was discharged or released under conditions other than dishonorable” (p. 566). Legal definitions of veteran status are dependent on the benefit that an individual applies for. Historically, and from a governmental perspective, the definition of individuals who are eligible for veterans’ benefits has been changed by Congress for the past two centuries (USDVA, 2011a).

***Newer generation of veterans.*** The term “newer generation” of service members and veterans is used in this paper to describe individuals serving—post 9/11 to 2012. This time frame includes the following wars: Operation Enduring Freedom (OEF, 2001-present), Operation Iraqi Freedom (OIF 2003-2010), Operation New Dawn (OND, 2010-2011) (Congressional Research Service [CRS], 2011).

***Combat veteran.*** According to the VA, to be considered for combat veteran status, a veteran must provide the following documentation: 1) military service documentation that reflects service in a combat theater 2) receipt of combat service medals 3) receipt of imminent danger or hostile fire pay or tax benefits (DoD, 2012). The National Defense Authorization Act

(2008) extended combat veteran eligibility to veterans from the (Operations Enduring Freedom, Operation Iraqi Freedom and Operation New Dawn [OEF/OIF/OND]) wars.

**Combat.** According to the Wounded Warrior Project (2012), experiences during deployment can lead to positive changes of and it can also leave a service member with “lasting emotional wounds.” These injuries impact the service member, as well as the family and communities he or she returns to.

### ***Deployment***

According to the DoD (2012), deployment is defined as “the relocation of forces and material to desired operational areas. Deployment encompasses all activities from origin or home station through destination, specifically including intra-continental United States, intertheater, and intratheater movement legs, staging, and holding areas” (p. 94).

**Combat and Operational Stress.** The DoD (2012) defines combat and operational stress as “expected and predictable emotional, intellectual, physical, and/or behavioral reactions of service members who have been exposed to stressful events in war or military operations other than war” (p. 54). The extent of combat stress and responses to it may be different among different individuals.

**Readjustment.** The term readjustment has been used earlier studies (such as the National Vietnam Veterans Readjustment Survey [NVVRS]) to assess symptoms of military-related PTSD (Kulka et al., 1990). Researchers then started to incorporate physical and psychosocial problems into their study of military to civilian readjustment (Stretch, 1991).

**Reintegration.** Prior to 2012, stated that the U.S. military did not provide a standard definition of reintegration (Sayer et al., 2011). However, the DoD (2012) defined the term



reintegrate as “the task of conducting appropriate debriefings and reintegrating recovered isolated personnel back to duty and their family” (p. 282). Sayer et al. (2011) and Amdur et al. (2011) contended that the military construct for reintegration involves the returning member’s full participation in various areas of her or his community. Both authors note that the term reintegration (vs. readjustment) appears to be the used in more recent studies to define this concept. Since the current use of this term in military literature appears congruent with the strengths perspective (Saleebey, 2008), it will be used in this manner for the remainder of this paper.

***Cultural transitioning.*** Ray and Heaslip (2011) applied the concept of cultural transitioning to Canadian military veterans as they returned home. In order to successfully transition back into society: military culture and civilian culture the veteran has to maintain two cultures. The transition process that takes place when a soldier returns to his or her community from combat includes taking the role of father or mother, wife or husband, son or daughter, co-worker, and so forth. Cultural transitioning is also experienced by the support system and communities to which the service member returns.

***Community.*** Fellin (2001) describes a community as “a group of people [who] form a societal unit based on common location, interest, identification or some combination of these characteristics” (p. 1). The author details various types of communities: locality-based communities, planned communities, communities of identification and interests, as well as discussing the intersection of multiple identities and community affiliations. When asking a diverse sample of public health participants to define community, MacQueen et al. (2001) found similar definitions of community among individuals with diverse characteristics who share

similar social ties, common perspectives, participate in activities together in local geographic areas. The authors state that “community was defined similarly but experienced differently by people with diverse backgrounds” (para. 3).

***Community integration.*** In studying the perspectives of integration by patients with brain injury, McColl et al. (1998) describes community reintegration as “having something to do; somewhere to live; and someone to love” (p. 16). The authors studied a model of community reintegration that included three domains of life: relationships, living situation, and meaning in life.

***Post Deployment Reintegration.*** Blais et al. (2009) measured post-deployment reintegration among veterans experience positive and negative aspects of reintegration issues in following domains: (1) personal; (2) family; and, (3) work. Findings also suggested that reintegration problems in these domains were correlated with PTSD as well as organizational commitment.

***Military to Civilian Reintegration.*** Sayer et al. (2011) captured challenges that veterans face as they return to their social roles in their original communities through the use of their Military to Civilian Reintegration Questionnaire (M2CQ). The authors cite previous research that point out difficulties service members may have interacting with those who have no military/combat experience, difficulty finding meaning in a civilian life, as well as difficulties in finding acceptance, connections with others, and involvement in community/recreational activities (Laffaye et al., 2008; Bowling & Sherman, 2008; McColl et al., 1998)

### ***Gender***

The sixth edition of the American Psychological Association (APA) (2010) suggests that gender be defined as a social and cultural role, and be distinguished from the term sex, when sex

is defined biologically. Studies focusing on reintegration issues affecting women veterans found women have higher rates of trauma, PTSD diagnosis, utilization of medical services, divorce, and they report less social and economic support systems than their male veteran counterparts (Carney et al., 2003; Fontana & Rosenheck, 2006; Fontana, Rosenheck, & Desai, 2010; Fontana, Schwartz, & Rosenheck, 1997; Gamache, Rosenheck & Tessler, 2003; Greenberg, Fontana, & Rosenheck, 2004; Street, Vogt, & Duttra, 2009).

***Sexual orientation.*** The APA (2010) defines sexual orientation as “an enduring pattern of attraction, behavior, emotion, identity, and social contacts” (p. 74). After “Don’t Ask Don’t Tell” (DADT, 1993) was repealed in 2011, three categories related to a service-member’s sexual orientation became protected: (1) admissions of one’s sexual orientation; (2) lawful sexual acts with a person of the same sex; and (3) marriage, domestic partnership/ civil union, or a commitment ceremony with another person of the same sex (Service members Legal Defense [SLDN], 2012).

***Ethnicity/Race.*** According to Strom, Lee, Trahan, Kaufman, & Pritchett (2009) ethnicity and race can be viewed as a social construct. The authors consider ethnicity to be a construct that is more open, flexible, and self-defined than the construct of race. Smedley and Smedley (2005) also make a distinction between ethnicity and race from a historical and anthropological perspective. Quiros (2012) distinguishes that historically, the United States has defined race based on a simplistic categorizing of individual’s physical characteristics while ethnicity can be defined as “shared religion, food, geographic location, ancestry or other social characteristics” (p. 519).

In terms of ethnicity/race, Census Bureau (USCB, 2011) statistics report the majority of military veterans in this country consider themselves to be “White-only” (83%), although national trends indicate an increasing number of individuals who identify themselves in other ethnic/racial categories (See Table 1). In terms of veteran community reintegration, Sayer et al. (2011) found that “Non-White” (p. 668) veterans had higher levels of community reintegration difficulties in compared to their White veteran counterparts.

In keeping with APA (2010) guidelines, this study will use “commonly accepted designations” (p. 75) of race and ethnic identity to report census bureau statistics and to review the literature. However, it is important to acknowledge the need for participants to determine their own racial or ethnic identity in the data collection (Strom et al., 2009).

**Veteran.** Amdur et al. (2011) defines a veteran as “a person who served in active military service and was discharged or released under conditions other than dishonorable” (p. 566). Legal definitions of veteran status are dependent on the benefit that an individual applies for. Historically, and from a governmental perspective, the definition of individuals who are eligible for veterans’ benefits has been changed by Congress for the past two centuries (USDVA, 2011a).

### **Demographic Background**

A review of data from the Census Bureau (USCB, 2011) and Pew Research Center (2011) on the veteran population is useful to synthesize national, state, and local demographic trends with regard to the veteran population. Estimates of troops involved in each conflict over the timeframe of a decade prior to September 11, 2001 and a decade after this historical date were obtained for the purpose of comparing trends before and after this historical event that

changed the dynamics of the military. Demographic variables of particular interests to this study are the statistics within categories of ethnicity, race, gender, gender identity, and sexual orientation.

**National trends.** According the Census Bureau (USCB, 2011), data collected in the 2010 American Community Survey (ACS) report indicates that approximately 228, 8798 (over 10%) of the nation's veteran population, have served since the post-9/11 era of the Gulf War. With regard to the changing composition of today's veteran population, the National Survey of Veterans 2001 Final Report (USDVA, 2011c), stated that the U.S. veteran population historically has been made up of mostly White, Non-Hispanic males. Although still a small percentage, there is an increasing number of females and both women and men of color serving in the military.

Census Bureau (USCB, 2011) data indicates approximately 7.2% of veterans were female, 11% were Black or African American, 0.7% were Native Americans, 0.1% were Native Hawaiian or other Pacific Islander, 5.3% were Hispanic or Latino origin, 1.1% and 1.5% identified with "some other race" (See Table 1 ). A comparison of ethnic and gender diversity 10 years prior to 9/11 versus 10 years after 9/11 shows little change in the makeup of these characteristics of the veteran population (See Figures 1 & 2).

Data from the Pew Research Center (2011) compares the characteristics of the Post 9/11 veteran population (N =712) with that of the general population (N = 2,003). More veterans in this population identify themselves with the Republican Party (36 %) than the public in general (23%). The percentage of identification as an Independent was the same for veterans in the 9/11 population and the general population (35%), and fewer veterans (21%) in this population identified with the Democratic Party, than the general public (34%).

With regard to religious affiliation, Post 9/11 veteran characteristics were similar to that of the general public except for one area. The Post 9/11 veteran population had a higher response rate of “no particular religious affiliation” (30%) than the general population (18%). Findings from the Pew Research Center (2011) study also indicated that Post 9/11 veterans rated themselves at the same level of “overall happiness” as the general population. In contrast, the Post 9/11 veteran population reported lower rates of satisfaction with their financial situation (20%) compared with the general public population (25%). The study found an 11.5% unemployment rate among the Post 9/11 veterans surveyed and authors suggested this may be a possible reason for the disparity in financial satisfaction rates.

**State trends.** Areas of interest in this study focus on the Southeast region of the United States. The Census Bureau (USCB, 2011) reports in 2010, there were 487,899 veterans in Tennessee and 696,844 veterans in Georgia. As with national data, approximately 10% of veterans in Tennessee and 13% veterans in Georgia served in the post-9/11 Gulf War to date. Of the total veteran population, Georgia had a higher number and percentage of female veterans (9.9%) than Tennessee (7.0%). Racial/ethnic makeup of the veteran population was similar in these two states, except that Tennessee had a higher percentage of Caucasian veterans (83.8%) compared to Georgia (66.9%). Conversely, Georgia had a higher percentage of Black/African American veterans (29%) than Tennessee (13.5%) (see Table 1).

**Local trends.** In 2010, the Census Bureau (USCB, 2011) recorded 13,283 veterans in Chattanooga Tennessee and 10,463 in Knoxville Tennessee. As with national and state data, approximately 10% of veterans in both Chattanooga and Knoxville served in the Gulf War during the post-9-11 period. Both cities had the same proportion of male (93.6%) and female

(6.4%) veterans. With regard to ethnic or racial makeup, the following information was recorded: Approximately 68.4% veterans in Chattanooga and approximately 88.2% in Knoxville considered themselves White. Approximately 30.8% veterans in Chattanooga and approximately 11.0% in Knoxville identify themselves as Black or African-American. No other racial or ethnic group was reported in either city (see Table 1).

Table 1. U.S. Census Bureau (2011) Demographic data from 1990-2010

	<i>1990</i>	<i>2000</i>	<i>2005</i>	<i>2010</i>
<b>Population of Veterans in the U.S.</b>	27,481,055	26,403,703	23,427,584	21,798,077
<b>Period of Service</b>				
Gulf War (2001 -2010)			17.4% (combined)	10.5%
Gulf War (8/1990 - 8/2001)		11.5%	17.4% (combined)	15.8%
Post-Vietnam Era	3,352,156	3,024,503		
Vietnam Era Veterans	1,900,833	658,2094	33.4%	34.9%
Post-Korean War	2,944,497	8,380,356		
Korean War Veterans	3,720,976	16.5%		
WWII veterans	8,345,431	4,335,323	13.7%	11.8%
Some Other Time		15.3%	14.7%	9.5%
		4,045,521		
		21.7%		
		323,785		
		1.2%		
		323,785		
<b>Gender</b>				
Male	29.1% of total pop 26,330,011	94% 24.8m	93.1%	92.8%
Female	1.2% of total pop 1151044	6% 1.6m	6.9%	7.2% 1569461.544
<b>Age</b>				
18-34 years		16,740,194 combined	8.4%	8.0%
35-54 years		16,740,194 combined	27.6%	25.5%
55-64 years		16,740,194 combined	25.4%	24.5%
65-74years		9,663,506 Combined	19%	19.7%
75 years and older		9,663,506 combined	19.6%	22.2%
<b>“Race and Hispanic or Latino Origin”</b>				
White alone, not Hispanic or Latino		82.9%/85.5%	82.2%/85%	80.5% “white” statistic 84.3%
Black or African American-		9.7%	10.1%	11.0% 2397788.47
American Indian and Alaska Native		0.7%	0.7%	0.7% 152586.539
Asian		1.1%	1.3%	1.2%
Native Hawaiian and Other Pacific Islander		0.1%	0.1%	0.1% 21798.077
Some Other Race		1.4%	1.6%	1.1%
Two or More Races		1.4%	1.2%	1.5%
Hispanic/Latino (of any race)		4.3%	4.7%	5.3% 1155298.081



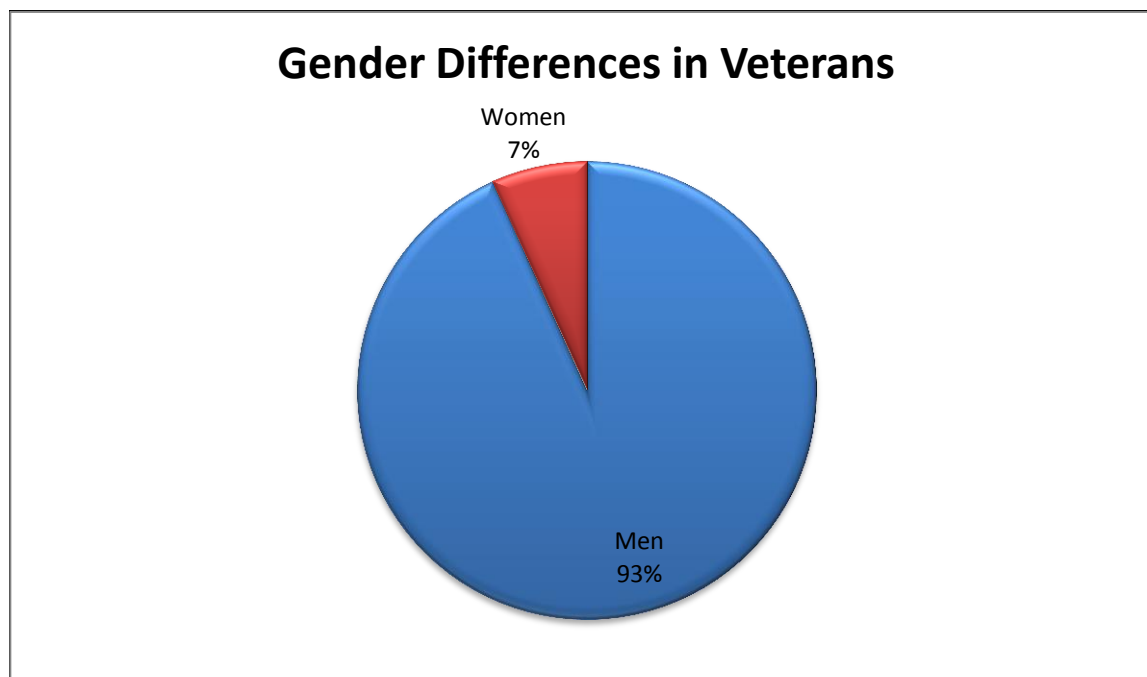


Figure 1. Gender Differences in U.S. Military Veterans

Source: U.S. Census Bureau (2011)

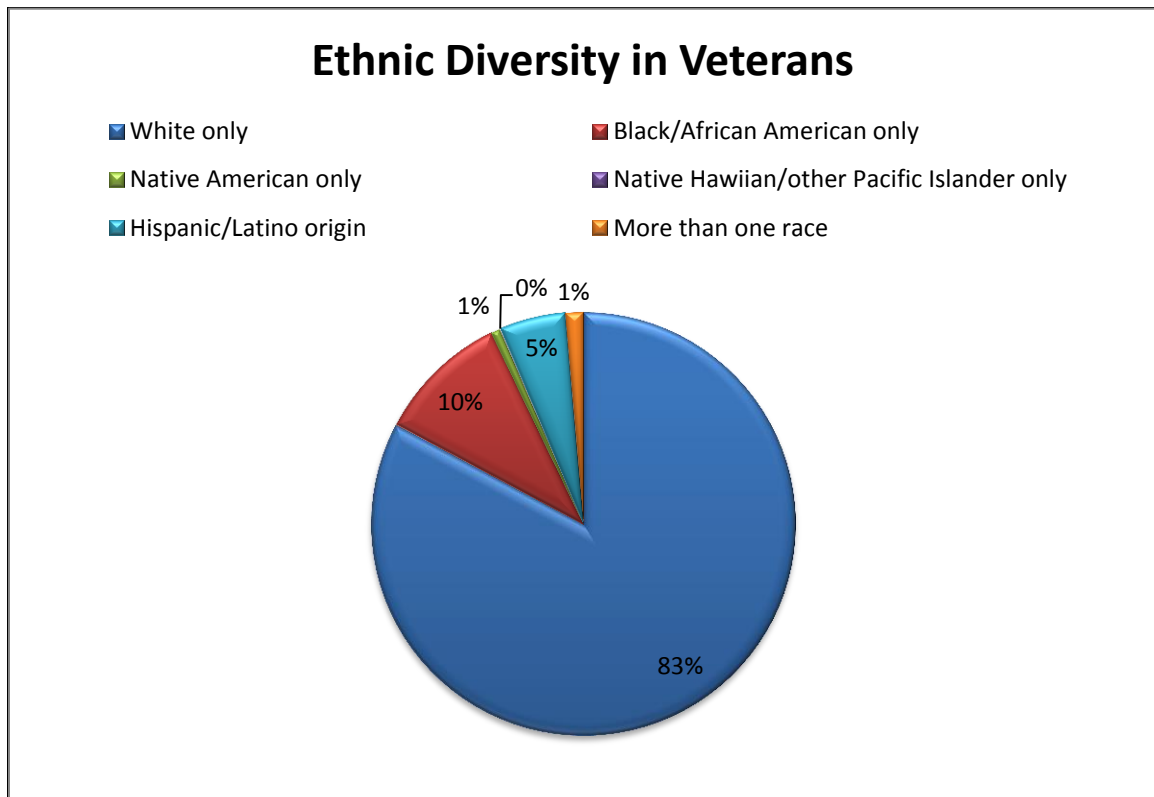


Figure 2. Ethnic Diversity in U.S. Military Veterans

Source: U.S. Census Bureau (2011)

## Historical Context

### **International history of Veteran Community Reintegration issues. *Effects of war.***

According to Bentley (2005), the psychological effects of war were first documented three thousand years ago when an ancient Egyptian warrior named Hori described his feelings: ““you determine to go forward. . . . Shuddering seizes you, the hair on your head stands on end, and your soul lies in your hand”” (para. 2). On that same continent the Maasai warriors go through purification rites in efforts to cope with the impact of war before returning to their communities (French, 2005).

Hudenko & Crenshaw (2007) go on to describe an Athenian soldier who became blind in the Battle of Marathon (490 B.C.) when the soldier beside him died. There was no physical harm caused to this soldier. This experience (known as conversion reaction) is a phenomena still found in soldiers today. The author describes another Spartan warrior named Aristodemus who was so disturbed from his experience in battle that he hanged himself. The high suicide rates among service members (ten times higher than the general population) indicate that suicide is still an issue to be addressed among military and service members and veterans.

Centuries later, in 1003 A.D., the Anglo Saxon Chronicle documented a battle where combat-related PTSD symptoms were noted. The newspaper reported that an English commander began vomiting violently and was unable to lead his soldiers into battle (French, 2005). In 1678, Swiss Army doctors were the first to identify criteria of symptoms that constitute combat reaction (what is now known as PTSD). They termed this condition “Nostalgia” (para. 9) and described symptoms of depression, sleep disturbance, appetite loss, anxiety, heart palpitations etc. During the same period, German physicians found similar symptoms in their

soldiers and called the condition “heimweh” -which means homesickness (Bentley, 2005, para. 10). Finally, in 1727 during the siege of Gibraltar soldier’s diary documented several incidences where soldiers affected by their combat experience were unable to follow instructions, refused to eat, drink, or work, and would injure or kill themselves.

***Veteran Community Reintegration rituals.*** To alleviate the impact of the traumas of war, a number of rituals have occurred across place and time. In Ancient Rome the Vestal Virgins would bathe soldiers from Legions cleanse them from the war experience. Later on in Europe during the middle ages, Christian knights would return from war and have to do penance in order to help them transition back into civilian life after all the killing they had done. Prior to the Europeans entering the “New World”, warriors from the Native American Plains tribes participated in sweat lodge rituals before they could reintegrate into their tribe (French, 2005).**U.S. history of Veteran Community Reintegration issues. Colonial era.** According to the VA, the first policy in American (colonial) history to help veterans readjust provided pensions to veterans who were disabled during the wars with the Native Americans was created in 1636 (USDVA, 2011a). In 1776, U.S. Continental Congress passed first the pension law for disabled veterans. Congress expanded its fiscal responsibility in 1789 with policies to pay for veteran benefits. States were responsible for providing medical care to disabled veterans until 1811 (Public Broadcasting Service [PBS], 2012; Vickery, 1999). In 1780, an attempt to increase recruitment as well as retain trained service members led the Continental Congress to advertise veterans pay or bonuses for those who remained till the end of the war. In 1818, the Service Pension Law increased veteran benefit eligibility to those who served in the American Revolution. At the beginning of the 19th century, the government expanded veterans’ benefits to

widows and dependents. Hundreds of thousands of veterans were documented by the end of the Mexican American War (1848).

From the perspective of a World War II veteran, anti-war activist, and historical scholar Howard Zinn:

Young men-boys, in fact-were enticed into the Revolutionary Army of the Founding Fathers by the grand words of the Declaration of Independence. But they found themselves mistreated, in rags and without boots, while their officers lived in luxury and merchants were making war profits. Thousands mutinied, and some were executed by order of General Washington. When, after the war, farmers in Western Massachusetts, many of them veterans, rebelled against the foreclosures of their farms, they were put down by armed force. (Zinn, 2004, para. 13)

**Civil War.** After the Civil War, there were approximately 1.9 million Union veterans. The number of veterans on the Confederate side was slightly less. According to the VA, Congress responded to the needs of veterans from this war by passing the General Pension Act (1862) to provide disability payments and the Homestead Act (1862) to provide Union veterans with land in the West. During this time period, the National Cemetery System (NCS) was also established (Potter & Schamel, 1997; USDVA, 2011a). It should be noted that only Union veterans received pensions and benefits for their service until 1958 when Confederate veterans were pardoned given pensions (to those who were still alive) (PBS, 2012).

Union veterans who were receiving benefits, they still felt inadequately compensated for their losses. Grand Army of the Republic (GAR) was the largest Civil War veterans association,

founded in 1866 to advocate for increased benefits for honorably discharged veterans (GAR Museum & Library, 2013). Congress responded by passing the Consolidation Act (1873). The Act allowed for veterans who were injured during service to be compensated for their service-related injury in addition to providing for in-home medical care and housekeeping services to disabled veterans. According to Blanck and Song (2003), this legislation resulted in disparities in compensation and diagnosis. The authors distinguish the period during 1862-1890 as the “Disability Pension System” (p. 1116) and the period during 1890-1907 as the “Service-Based Pension System” (p. 1116). Finally, the Sherwood Act (1912) allowed all recognized veterans from the Mexican and Civil War to receive pensions (Lillian Goldman Law Library, 2012; USDVA, 2011a). Zinn (2004) summarizes the effect of these wars on veterans with following perspective:

It is a long story, the betrayal of the very ones sent to kill and die in wars. When soldiers realize this, they rebel. Thousands deserted in the Mexican War, and in the Civil War there was deep resentment that the rich could buy their way out of service, and that financiers like J. P. Morgan were profiting as the bodies piled up on the battlefields. The black soldiers who joined the Union Army and were decisive in the victory came home to poverty and racism. (para. 14)

**World War I.** Five million service members returned from World War I, and 200, 000 were disabled. Congress passed the War Risk Insurance Act (1914) and the Vocational Rehabilitation Act (1920) to provide insurance, disability compensation, rehabilitation and medical services to veterans. Finally, in 1924, the Veterans Bureau was organized into six service areas: (1) Medical and Rehabilitation; (2) Claims and Insurance; (3) Finance; (4) Supply;

(5) Planning; and, (6) Control (this included 73 sub-district offices) (PBS, 2012; USDVA, 2004; USDVA, 2011a).

In 1919, Congress chartered the American Legion (AL). As time went on, the AL “evolved from a group of war-weary veterans of World War I into one of the most influential nonprofit groups in the United States” (AL, 2013, para. 1). The AL proposed compensating veterans for their service. The initial bill that made it through Congress by the fall of 1922 was vetoed by President Warren Harding, who was concerned with depleting government funds by paying Bonuses to veterans. President Calvin Coolidge succeeded Harding as a result of his untimely death in 1923. Coolidge believed in carrying on the principles of the Harding administration and subsequently vetoed the World War Adjusted Compensation Act (1924) (also known as the Bonus Act). The AL continued its push for veteran compensation and successfully empowered Congress to override President Coolidge’s veto and pass the bill (United States History, 2013). In order to successfully pass this bill, the AL compromised on immediate cash payment of less than \$50 in total. Veterans who had bonuses of more than \$50 were given an endowment policy from the VA, which would not be paid until 20 years after issuance. The AL’s support of the Bonus Act put it at odds with the VFW, who chose to take position of demanding for immediate payment of the Bonus in September 1929 (Ortiz, 2010, 2011; USDVA, 2011a).

***Great Depression.*** During the Great Depression, Congress was finally able to pass the World War Adjusted Compensation Act (1924). The purpose of this legislation was to provide bonuses to WWI veterans, who returned to a struggling economy. The legislation allowed for these bonuses to be spread out over 20 years, which provided little relief for the immediate

challenges faced by veterans. Approximately 12,000 to 15,000 veterans and their families protested the limitations of this Act by protesting on the streets of Washington, D.C., demanding the government fulfill their commitment (USDVA, 2011a; Zinn, 2004).

By summer of 1932, the 25,000 Bonus Army veterans and supporters (veterans who were unemployed and their hungry families) camped in shantytowns and this became the nation's largest "Hooverville" (para. 7). The House responded by proposing the Patman Bonus Bill, which was defeated by Republicans in the Senate. Veterans in the Bonus army responded with a "Death March" (para. 8). Approximately 20,000 veterans protested on Pennsylvania Avenue for three days. Bonus March protesters stayed in Washington even after the bill was defeated. During the protests that summer, two veteran protesters were shot by police. This incident incited riots. In response, President Hoover ordered the military to use of machine guns, tanks and tear gas on their own veterans and the families of veterans. (Ortiz, 2006; PBS, 2012; Zinn, 2004)

*New Deal.* In 1930, the VA was established by Congress. The VA was organized into the following bureaus: Veterans Bureau, Bureau of Pensions, and National Homes for Disabled Volunteer Soldiers. This organization was responsible for providing medical services, retirement payments disability compensation and allowances to veterans (USDVA, 2011a).

When President Roosevelt took office, "The Bill to Maintain Credit of the United States Government" (Ortiz, 2006, p. 417,) also known as the Economy Act (1933) was passed. This Act reduced federal spending on veteran pensions and benefits by 400 million dollars. Veterans organized politically to fight against these cuts, mainly under the VFW association. Initially, the VFW had been supporters of President Roosevelt. When their benefits were cut under the Economy Act (1933) the VFW became the first organization to protest against the New Deal.



The VFW worked to increase public awareness of suffering of veterans, in addition to campaigning against this Act. As a result of opposition spearheaded by the VFW, Congress was able to successfully pass the Independent Offices Appropriation Act (1935), which restored some of the veteran benefits that were cut by Roosevelt (Congressional Digest, 1934; Ortiz, 2009).

**World War II.** The horrors that took place during the Bonus March of 1932 and the increase in political organization of veterans influenced Congress to pass laws which supported the reintegration of World War II veterans (Ortiz 2006; PBS, 2012; Zinn, 2004). During the war, Congress created the National Service Life Insurance and passed the Selective Service Training Act (1940). The latter act guaranteed veterans the jobs they left when they joined the military. The Barden-Lafollette Act (1943) provided employment rehabilitation services to individuals with mental illness and mental retardation (Elliot & Leung, 2004). The Servicemen's Readjustment Act (1944) guaranteed the following to military service members: (1) four years of education/training; (2) federal loan for home, business, or farm (with no down payment); and, (3) unemployment compensation (USDVA, 2012b). In the same year that the GI Bill was passed, the Veterans' Preference Act (1944) gave hiring preference for government jobs to veterans. Congress also authorized the VA to meet the needs of for returning WWII veterans by obtaining prosthetic devices.

From the VA's perspective, the "GI Bill contributed more than any other program in history to the welfare of veterans and their families" (USDVA, 2011a, p. 14). Katznelson (2006), on the other had points to the WWII African American veterans (who were segregated in the military) did not have access to the benefits of the GI Bill due to the social context, climate, and discriminatory practices of the time. In particular workforce reentry benefits provided by the

GI Bill were discounted an increased violence against African American or Black workers as competition for employment increased after the war (Wise, 2004). As it pertained to higher education, 43% of African American/Black veterans showed interest these opportunities. However, public officials and policies in this arena restricted their ability to pursue these goals due to the segregation that still existed in higher education. In addition to this, the author notes that laws promoting segregation in the South exacerbated the lack of access to GI Bill benefits by African American/Black veterans. These veterans were mostly restricted to segregated institutions, which had limited space for enrollment.

In addition to the employment and education barriers African American/Black WWII veterans faced, they also faced inequities in the area of home ownership as a result of the GI Bill. From a top-down perspective, VA and FHA loan programs which implemented the GI Bill both used underwriting criteria that was racially-restrictive at that time. From a bottom-down perspective, these organizational policies limited access of the \$120 billion in housing equity to mostly Caucasian/White veterans (Howlette & Ramesh, 2003). Lastly, access to all benefits under the GI Bill was restricted to “racist white officers” (Wise, 2004, p. 2). These officers unfairly issued dishonorable discharges African American/Black military service members as evidenced by the 50% higher rate of dishonorable discharges among Black/American service members compared to Caucasian/White soldiers. In summarizing the disparaging impact of the 1944 GI Bill based on race/ethnicity, the author states “African-American soldiers [were prevented] from taking advantage of this supposedly ‘universal’ program for re-adjustment’ to civilian life” (p. 2).

*Korean War.* On July 26, 1948, President Truman signed Executive Order No. 9981 (1948), making segregation in the military illegal. This law to desegregate was initially resisted by the military, which only started taking steps towards full-integration by the end of the Korean War (Harry S. Truman Library & Museum, 2013; Our Documents, 2012).

Community support and reception of Korean and Vietnam veterans were much less welcoming than that of previous generations (PBS, 2012). After the Korean War, the Vocational Rehabilitation Act of 1950 was passed by Congress to provide services to veterans from the Korean War as well as for veterans who served during peacetime. The Veterans' Readjustment Assistance Act (1952) more commonly known as the "Korean GI Bill" The bill was similar to the WWII GI Bill except that education benefits were limited and reduced. The Korean War resulted in an increase in the number of VA hospitals. From 1942-1950 hospitals increased from 97 to 151. During this time, the VA served 2.5 million veterans and dependents per month (USDVA, 2011a). While medical services expanded for veterans in general, African American veterans were treated in segregated hospitals with unequal treatment and care. In 1953, the VA officially desegregated all its hospitals (Buelow, 2012). In the same year, the VA reorganized into departments to provide three different types of services: the Department of Medicine and Surgery, the Department of Veterans Benefits, and the Department of Insurance.

Later in that decade, Congress passed the Ex-Servicemen's Unemployment Compensation Act (1958) to create a permanent unemployment system, which also included benefited to peacetime veterans. These federal funds were allocated to veterans through the states. Lastly during this era, the Veterans' Pension Act (1959) changed pensions from a flat-rate to sliding scale, based on the individuals' income.

*Vietnam War.* During the Vietnam War era, over six million veterans were separated from service, and by 1972, 308,000 veterans had service-related disabilities (USDVA, 2011a). Goodwin (2011) provides a comparison between the WWII veteran and the Vietnam veteran. It took World War II veterans weeks and sometimes months to travel from deployment back to the U.S., surrounded by their unit, through this transition process. On the other hand, Vietnam veterans, because of their 12 -13 month rotations returned home at different times than their units and their transition flight from Asia to California in was less than three days. Medical treatment and airlifting advances increased the number of survivors (as compared to previous wars) and returned veterans from the combat zone to society in a shorter period of time than before. Vietnam veterans experienced adjustment issues related to the culture shock of coming back to American society, and they reported feelings of isolation and alienation that was exacerbated by the anti-war climate that they returned home to. In addition to this, many veterans found themselves unemployed upon returning home due to the economic recession during the time of U.S. withdrawal from Vietnam.

According to Zinn (2004), Vietnam veterans “came home to find that the same government that had sent them into an immoral and fruitless war, leaving so many of them wounded in body and mind, now wanted to forget about them” (para. 17). The author contends that currently the “government pours hundreds of billions into war, [yet] it has no money to take care of the Vietnam veterans who are homeless, who linger in VA hospitals, who suffer from mental disorders, and who commit suicide in shocking numbers. It is a bitter legacy” (para. 19).

After the Vietnam War, Congress passed the Veterans’ Readjustment Benefits Act (1966). The bill restored educational benefits, with successful participation levels at

approximately 76% of those who were eligible. Another program created for Vietnam veterans was the Servicemen's Group Life Insurance which started out at \$10,000 and has increased to \$200,000 in 1992. This was the first time the VA contracted to a private insurance agency for insurance coverage. The Veterans Group Life Insurance provided coverage to other veterans and coverage was extended to all branches of the military. In 1971, Congress provided for the creation of the Veterans Mortgage Life Insurance program to assist veterans who were disabled (USDVA, 2011a). In 1979, the Vet Center Program began in response to the number of returning Vietnam veterans experiencing readjustment problems. Public Law 96-22 (and subsequent amendments) provided for the creation of the Vet Center. The Veterans' Health Care Amendments (1979) established the Vet Center Program for PTSD in response to the number of returning Vietnam veteran's experiencing reintegration problems (Veterans of Foreign Wars [VFW], 2013). The Vet Center Program is considered the first program created to address the psychosocial consequences of combat. The Vet Center Program led the USDVA in identifying and treating symptoms of PTSD – which was only later included as an official diagnosis in 1980 by the APA (USDVA, 2011e).

The government's efforts to assist veterans as they returned to their communities did not protect veterans and their families from the devastating and lasting effects caused by exposure to Agent Orange during the Vietnam War. Agent Orange was one of many herbicide weapons sprayed over large parts of Vietnam. According to Zinn (2004), this resulted in "hundreds of thousands" (para. 18) of birth defects, cancers, and deaths. "Tens of thousands" (para. 18) of American Vietnam veterans have complained of sickness and child birth defects for years before government acknowledge its role in these tragedies. Finally, Congress passed the Agent Orange

Act (1991), allowing disability status for Vietnam Veterans who had medical conditions related to exposure to Agent Orange. In 1996, President Clinton announced 1996, that the VA would propose legislation to provide an “appropriate remedy” (Rattler/Firebird Association, 2012, para. 8) for children of Vietnam veterans with spina bifida. As a result, Congress passed the Agent Orange Benefits Act (1996), signed into law by the President. This law forced the VA to respond by creating a research center to focus specifically on epidemiological issues related to the Agent Orange exposure experienced by Vietnam veterans and contracting to Shriners’ Hospital for Children to provide care for children of Vietnam veterans who suffer from spina bifida, and a program was created for these children to receive benefits other benefits through the VA (USDA, 2011a).

*Post-Vietnam War Era.* Congress abolished conscription in 1973 due to protests against the draft and a growing sentiment against the treatment of the poor and African Americans, who were disproportionately placed in combat roles (Tucker, 1998). After the Vietnam War, Congress passed legislation that was more focused on recruiting enlistees than providing support to veterans who were readjusting (USDVA, 2011a). For example, the Post-Vietnam Era Veterans' Educational Assistance Act (1977) opened up educational benefits to service members enlisting beginning in 1977 and provided federal matching money towards the service members’ educational expenses.

During this time, the responsibility to care for veterans started to shift from the Federal government to the states. One example is the National Cemeteries Act (1973), which transferred all national cemeteries for veterans to the VA (with the exceptions of Arlington National Cemetery and the Soldiers’ Home National Cemetery). In 1978, the VA provided grants for

cemeteries operated by the states through the State Cemetery Grants Program (USDVA, 2011a). Later that year, Congress passed the Veterans' and Survivors' Pension Improvement Act (1978) in efforts to manage costs by determining eligibility for pensions based on family and retirement income (Legal Information Institute [LII], 2012a; 2012b).

The Veterans' Health Care Amendments (1979) expanded services to veterans through Vet Centers as separate facilities located in communities. Initially geared toward treating Vietnam veterans, Vet Centers provided counseling services and treatment for PTSD. In 2005, there were 200 Vet Centers across the country serving veterans nationwide. The 1979 bill also provided for the development of a program to treat veterans for substance abuse problems in community facilities. The VA started training health-care specialist to meet the needs of an increasingly older veteran population in 1975 (Panangala, 2006).

As military recruits started decreasing, Congress responded by passing the Veterans' Educational Assistance Act (1984), which created what, is now called the Montgomery GI program. For veterans who had met their obligations to the military or were honorably discharged, education assistance was provided under this act (USDVA, 2011a; United States Government Accountability Office [GOA], 2012). The Emergency Veterans' Job Training Act (1983) provided reimbursements to employers for training and hiring unemployed veterans from the Korean War and the Vietnam era. In the 1980s, Congress also took steps to restrict benefits. Minimum service lengths were required to be eligible for benefits and some honorably discharged veterans and spouses were not eligible for burial in a VA national cemetery.

***Cold War Era.*** Currently, veterans who served during the Cold War are not recognized for their service during war time. Despite legislative efforts by political proponents of veteran

support (such as Senator Jim Web along with nine other co-sponsors), the Pentagon has been successful in opposing efforts to establish a Cold War Service Medal (Times, 2012). In 2012, the American Cold War Veterans (ACWV) chose to channel their advocacy efforts at the executive level by appealing to President Obama and Secretary of Defense Leon Panetta. Based on precedent established by Presidents Eisenhower and Kennedy, the ACWV is requesting an Executive Order be passed to establish a service medal for these veterans. In his letter, the chairman provided arguments “including deployments and campaigns not recognized by other medals and ten enclosures to document my narrative” (para.1). The ACWV is currently awaiting a response from the President.

During the Cold War era, the VA was given Cabinet-level status, as signed into legislation by President Reagan in 1988. Edward Derwinski was the first Secretary of Veterans Affairs, and the department was reorganized into three areas: Veterans Health Services and Research Administration (renamed as Veterans Health Administration [VHA]), Veterans Benefits Administration (VBA), and NCS. President Obama commemorated this Cabinet-level status anniversary, twenty years later along with Secretary Shinsheski (Hicks, 2009). Congress limited the eligibility of veterans for disability pensions through the Omnibus Budget Reconciliation Act (1990). This law repealed the automatic classification of veterans over 65 and low-income war veterans as eligible for disability pensions and required total disability status before a veteran could be eligible for these funds (Checks for Vets, 2012; USDVA, 2011a).

The Veterans’ Health Care Eligibility Reform Act (1996) for the first time created eligibility criteria based on income in order to determine whether veterans could receive free medical care. Those who had service-related disabilities, veterans with lower incomes, and some



other groups of veterans were to still receive free health care as mandated by Congress (Congressional Budget Office [CBO], 2010; USDVA, 2011a).

***Persian Gulf War.*** According to the VA 13.2% of Persian Gulf War veterans were women (USDVA, 2011a). During this era there was an increase in public support for the military and veterans and this pressured Congress into passing the Persian Gulf Conflict Supplemental Authorization and Personnel Benefits Act (1991) to provide Persian Gulf War veterans with war veteran status subsequently making them eligible to receive the same support and benefits received by all other war-time status veterans. In 1991, Congress extended Vet Center eligibility to war veterans from Lebanon, Grenada, Panama, Persian Gulf, Somalia, and Kosovo/Bosnia. WWII and Korean War veterans were eligible for Vet Center services by 1996 (USDVA, 2011e; USDVA, 2011j).

Before the Persian Gulf War ended, veterans reported symptoms multiple physical symptoms with no identifiable cause. In 1994, Congress mandated medical care for Gulf War veterans who had possibly been exposed to toxic substances or environmental hazards. VA reports to the Associated Press (Hefling, 2010) suggest that approximately 80% of Gulf War veterans filing these claims have received compensation for one or more conditions. On the other hand, PBS (2012) notes that even today there are veterans from the first Gulf War fighting to have their medical problems recognized for what it is: Gulf War Syndrome. Zinn (2004) paints an even bleaker picture of the Gulf War veterans.

The United States government was proud that, although perhaps 100,000 Iraqis had died in the Gulf War of 1991, there were only 48 American battle casualties. What it [*sic*] has concealed from the public is that 206,000 veterans of that war filed claims with the VA for injuries and

illnesses. In the years since that war, 8,300 veterans have died, and 160,000 claims for disability have been recognized by the VA. (para. 20)

***Post-9/11 Wars in Iraq and Afghanistan.*** When reflecting on suffering of veterans from the post-9/11 wars in Iraq and Afghanistan Zinn's (2004) states that "those who come back alive, but blind or without arms or legs, find that the Bush Administration is cutting funds for veterans" (para. 22). The author contends that this President has "continued his policy of ignoring the thousands who have come back wounded, in a war that is becoming increasingly unpopular" (para. 22).

### **Political Context**

**President's commitment.** On August 5, 2011, President H. Obama II announced a plan for America's increased commitment in facilitating the transition process of returning veterans with the following strategies: (1) challenge to the private sector to hire or train 100,000 unemployed veterans or their spouses by the end of 2013; (2) providing Returning Heroes and Wounded Warrior tax credits; (3) Presidential call for career-ready military; and, (4) transitional assistance to the private sector (Whitehouse, 2011b). Historically, the Obama Administration has supported efforts to help veterans readjust. In 2009, the VA announced it would provide services to 266,000 veterans who did not have service-related medical conditions with VA health care. In addition to this, a 10% income threshold increase was provided for priority 8 veterans, which added \$350 million to the VA budget (Philpott, 2011).

On April 12, 2011, First Lady Michelle Obama and Dr. Jill Biden launched a nationwide initiative called "Joining Forces" (Whitehouse, 2011a, para. 1) in order to provide community

support and honor to American soldiers and their families. The initiative called for support to military personnel and their families in the following areas: (1) Employment-by bringing attention to the positive reasons to employ service members and their families, by increasing employment and career development opportunities for members of the military and their families and by helping to create work supportive environments for them; (2) Education-by helping schools become responsive to the needs of children of military personnel, by supporting increased educational opportunities for those in the military and their families; and (3) Wellness-by increasing access to wellness programs and similar resources for members of the military and their families.

More recently, former President George W. Bush, through the George W. Bush Presidential Center (2014) is announcing a collaborative study with Syracuse University on identifying the best ways to reintegrate service members into the community. Findings from this study will be released this spring. Bush is also using the media as a platform to bring attention to issues that veterans face. Specifically, he is encouraging employers to hire veterans and PTSD to be classified as an injury instead of a psychiatric disorder (Kennedy, 2014).

**Congressional proponents and opponents.** In 2009, Congress passed the American Recovery and Reinvestment Act (ARRA). This act provided the following benefits to help veterans: (1) Grants for veteran medical facilities and national cemeteries; (2) Funds for the VA to hire 1,500 claims processors to assist in a faster delivery benefits to veterans; and, (3) A \$250 one-time payment to veterans or their survivors to help offset the difficulties of the current economy (Whitehouse, 2011b).

In April of 2011, Rep. Paul Ryan R-Wis of the House Budget Committee told the VHA they were pursuing a study to cut \$6 billion a year from its budget by cutting services to veterans who fall under priority 8 (those who do not have a service-related medical condition and those who are not considered to be poor). If this proposal is followed through, it would lead to a cut VA health care insurance for 1.3 million veterans (Philpott, 2011). In contrast to this, under the Clinton Administration, the Veterans' Health Care Eligibility Reform Act (1996) mandated an increase in VA clinics which allowed for the secretary to expand eligibility by lifting a ban on care for priority seven and nine status veterans in 1999.

Proponents of cuts to readjustment support services to veterans include the following Republican and Tea Party members: Sen. Johnny Isakson (GA); Sen. Pat Toomey (PA); Sen. Rand Paul (KY); Sen. Tom Coburn (OK); Sen. Mark Kirk (IL); Majority Leader Mitch McConnell (KY); Rep. Eric Cantor (R-VA); Sen. Bob Corker (TN); Rep. John Campbell (CA); and, Tea Party Rep. Chris Gibson (NY) (Sietz-Wald, 2011). More specifically, one of the Republican Presidential candidates, Representative Michelle Bachmann (R-MN) had initially proposed a \$ 4.5 billion cut to veteran's benefits, but later recanted this position on February 4, 2011 due to protests from veterans (Military.com, 2011; Congresswoman Bachman, 2011).

**U.S. Department of Veterans Administration (USDVA).** According to USDVA (2011g), Congress has authorized and funded the Vet Center Program since 1979. In 1988, Cabinet-level status was given to the overarching USDVA. The VHA, VBA, and NCS are the three operating organizations that fall under the USDVA. The Vet operates under the VHA. The Vet Center is the USDVA's community-level service program (USDVA, 2011a; USDVA, 2011e).

The Vet Center provides individual, group counseling, and family counseling to help veterans and their families cope with issues related to the military. Grief counseling is provided for families who had a loved one die in the line of duty. The Vet Center also provides counseling and referrals for those who have experienced MST. The Vet Center also provides PDHRA, assessments and referrals for substance abuse, employment issues, and medical issues (including TBI). Explanation VBA benefits and referrals for this are also provided by the Vet Center. Lastly, this organization provides outreach, education and community events in efforts to reach veterans in the community (USDVA, 2011j).

*Eligibility criterion and analysis of services.* In order to be eligible for Vet Center Services, a person must have current or former military personnel status or be a family member and/or dependent of a service member. The service member related to the person receiving services must have received a military campaign ribbon and served in combat zone. Veterans from the Vietnam War to conflicts in Southeast Asia to OEF, OIF, and OND are eligible for services from the Vet Center (Times, 2012; USDVA, 2011j).

Based on information provided by the VA (USDVA, 2011j), the Vet Center appears to be a service program vs. a cash, in-kind or entitlement program (Segal, Gerdes & Steiner, 2010). The Vet Center has attributes of both a consumptive approach and an investment approach in addressing the needs of veterans and their families (Caplan, 2010).

In efforts to quantify mental health service utilization of OIF and OEF veterans who reported PTSD or hazardous drinking, Erbes, Westermeyer, Engdahl, and Johnsen (2007) found that only 62% of the sample reported using some form of mental health care. Specifically, this study found the following breakdown of service utilization: Individual therapy (13%); Group

therapy (12%); Marriage/family therapy (10%); Substance abuse treatment (2%); and over half of use occurring in mandated briefings/debriefings (51%).

Hoge et al. (2008) examined mental health service utilization in U.S. combat infantry units previously deployed to Iraq and Afghanistan. Only 23-40 percent of returning veterans reporting symptoms of mental illness sought treatment. Veterans who scored for a mental illness were twice as likely to be concerned about being stigmatized. This study was limited in that it only sampled combat infantry units and failed to take into account the increasing amount of female veterans.

**Funding.** The Department of Veteran's Affairs is part of the President's Cabinet and headed by Secretary Erick Shinseki. The Cabinet-level is the source of funneling for funding the Vet Center (Whitehouse, 2011c). According to the Office of Human Resources and Administration (OHRA, 2011), programs under the VA have been funded by Congress under Public Law No. 111-117 2010 FY. The Vet Center Program falls under the VHA which is under the VA. For the 2010 fiscal year, the VHA received \$48,031,500 through this process. Congress created the Office of Inspector General (OIG) to monitor the USDVA through the Inspector General Act (1978). In efforts to provide further objectivity of this monitoring process, Congress passed the Inspector General Reform Act (2008) which separated the OIG office from the USDVA (OHRA, 2011).

Based on the information presented by the OHRA (2011), the Vet Center program is dependent on formula-based funding that is annually built into the USDVA's federal budget under the VHA (Haider, 1989). In order to provide stability of funding, Congress has enacted laws to fund the Vet Center program since 1979 (USDVA, 2011j). This being said, the mandate

and funding for the Vet Center program is subject to future congressional decisions and political influences.

There are weaknesses/gaps in the current program. For instance, a recent study suggested that veterans who identified themselves as Black or Asian were approximately three times less likely than White clients to attend their first mental health appointment (Mothi, Nijabat, & Mason, 2011). The study also found that men were less likely to attend their first mental health appointment than women. These findings are consistent with the underutilization of mental health services results found in the Erbes et al. (2007) study. In addition to this, Hoge et al. (2008), highlights concerns about stigmatization of mental illness found in the military community. These studies suggest that the Vet Center's clinical approach to the treatment of reintegration issues may not adequately meet the needs of returning veterans.

In response to this, the Vet Center is making strides to provide non-traditional support for readjustment issues through the Vet Center Combat Call Center (1-877-WAR-VETS), which provides 24 hours of confidential support for veterans and their families to talk about difficulties related to combat experience, or difficulties related to readjustment back into their families and communities (USDVA, 2011h). The Vet Center is also reaching out to rural communities through its Mobile Vet Center (MVC) program. According to USDVA (2011a), the MVC program has 50 recreational-vehicles that drive to rural areas to relieve veterans in these areas from having to drive many miles in order to receive counseling services, referrals, and benefits information. While the MVC program aims to address transportation difficulties in rural communities, it appears that it fails to address transportation difficulties in urban communities.

According to the VA (USDVA, 2011g) more than 10% of combat veterans from OEF/OIF are women. In efforts to address the increase of women designated as combat veterans (McClam, 2013) the Vet Center reports that more than 40% of staff at the Vet Center are women and suggests this large representation of women in its staff can help provide adequate assistance for women veterans who are transitioning from combat situations to civilian life. However, using the logic of staff ratio as evidence of adequate services suggests cause for concern of services provided to 90% of the combat veteran population who are male. The VA is also trying to reach the more technically connected “Generation Y” (also known as the millennial generation) of veterans through its Facebook page and the Mobile App, known as the PTSD Coach (Cole, 2001; Sternberg, 2012; USDVA, 2011b; USDVA, 2013b). The PTSD Coach application provides information on PTSD and stress management skills, screening tools, and links to referral information.

In the recent economic crisis, rates of homeless veterans, including homeless veteran women with children are increasing at unprecedented proportions (Jones, 2011). Other characteristics of the current recession, such as joblessness, cuts in funding to government aid programs may severely impact a veteran’s ability to cope with readjustment issues. While there have been initiatives to help alleviate the financial burdens veterans face as they come home (Whitehouse, 2011a), the current political climate is not allowing for an adequately funded safety net of community services to meet the basic needs (food, housing, employment, education, child care, health care) of veterans and civilians alike. Although the VA and its programs have been spared of sequestration cuts, based on its program description, the Vet Center does not attempt to



address the economic hardships that veterans face due to the current economy and the secondary effects of the sequester (Shane, 2013; USDVA, 2011i).

### **Summary of Data-Based Studies**

This section reviews previous research on community reintegration difficulties faced by veterans in six major areas of their lives (Sayer et al., 2010, 2011). Following a comprehensive review of research in these domains, studies that highlight particularly vulnerable populations as they face the challenges of reintegration will be summarized (Blosnich et al., 2012; Gamache et al., 2003; Rosenheck, Leda, Frisman, & Gallup, 1997). Veteran Community Reintegration research from an international perspective will also be explored (Blais et al., 2009; Blais Sullivan-Kawantes & McCreary, 2006; Negowa-Oda & White, 2011).

Sayer et al. (2011, 2010) conducted “the first systematic study of community reintegration problems and associated treatment interests” (p. 594) with Iraq and Afghanistan combat veterans who had or were using the VA medical system. A sample of 754 combat veterans from these wars was recruited using the VA medical services database system. The authors found approximately 40% of respondents reported extreme difficulty in overall reintegration over the past 30 days. In addition to this, 34-56% reported difficulty in social non-military relationships. Twenty-five to 41% reported some-extreme problems in the area of productivity and 31% reported the using more alcohol and drugs. Fifty-seven percent of participants reported problems with anger management. In terms of their interest in receiving

help for community reintegration issues, 96% of participants reported that they were interested in services in this area from a variety of sources such as the VA, internet, and mail. The most frequent areas of interest included information about VA benefits, education, and employment.

This study included a fairly large sample size for a first study in addition to the use of stratified sampling and weighing samples to match VA database proportions. However, generalizability of findings is limited to those who have used or are using the VA for medical services. The authors note that federal and state governments have implemented post-deployment community reintegration and suggest that future research should assess the effectiveness of these programs (Sayer et al., 2010, 2011).

**Domains of Veteran Community Reintegration.** In their subsequent study, Sayer et al. (2010, 2011) utilized Confirmatory Factor Analysis (CFA) to assess the following constructs of VCR: (1) *interpersonal relationships*; (2) *productivity*; (3) *community participation*; (4) *self-care*; (5) *leisure*; and, (6) *perceived meaning in life*. A review of empirical research related to these domains will be organized accordingly.

***Interpersonal relationships.*** In a sample of 50 male Vietnam veterans and their heterosexual female partners, Riggs, Byrne, Weathers and Litz (1998) found approximately 70% of veterans who were diagnosed with PTSD and their partners reported a high level of relationship distress in comparison to approximately 30% of veterans who did not have PTSD and their partners. Veterans who were diagnosed with PTSD and their partners reported higher levels of problems with intimacy in their relationships. In addition to this, those who were diagnosed with PTSD and their partners took more steps toward separation /divorce. Their level

of relationship distress was correlated with PTSD symptoms. Correlations were particularly strong with emotional numbing.

Calhoun, Beckham and Bosworth (2002) examined a sample of 71 partners of Vietnam War combat veterans. Findings indicated that levels of caregiver burden among veterans diagnosed with PTSD were associated with levels of interpersonal violence reported in the relationship. Compared with hostility, presence of major depression, level of interpersonal violence, and health complaints, PTSD symptom severity was found to be uniquely associated with caregiver burden. In addition to this, authors found that caregiver sociodemographic factors (age, race, education, and the availability of social support) did not mediate the relationship between PTSD symptom severity and caregiver burden. Lastly, the amount of caregiver burden was found to be strongly related to spouse psychological readjustment. Although this study was limited to partners of male Vietnam combat veterans, Hazle et al. (2012) support these findings by suggesting that the challenges faced by veterans affect their families and caregivers as well. Sayer et al. (2011) support findings that veterans who have PTSD are more at risk for reintegration issues.

Adler-Baeder, Pittman, and Taylor (2005) studied the prevalence of marital transitions in military families using three datasets from the Defense Manpower Data Center (DMDC) obtained through the DOD. Sample sizes included 18,398 veterans from a 1992 dataset, 19,571 veterans from a 1999 dataset, and 18,043 of the 1999 veterans spouses. Compared to male service members, women in military were found to have at least doubled the proportion of divorce rates, but they were less likely to remarry. Findings also indicated that African Americans service-members were overrepresented by approximately 50% among currently

divorced participants. A strength of this study is its large sample sizes, but the authors noted procedural complications from the use of secondary datasets. Unlike the previous two studies, this research includes female participants and the possibility of veterans from more recent wars. Other studies also substantiated reintegration disparities among women and non-White populations (Carney et al., 2003; Gamache et al., 2003; Sayer et al., 2011; Street et al., 2009).

In a study of 104 veterans attending universities in the western part of the U.S., Elliot, Gonzalez and Larson (2011) tested a model that included post-military intimate partner strain. As mentioned in the previous articles reviewed, PTSD symptoms were found to lead to strain in intimate partner relationships. Additionally, social support was negatively associated with intimate partner strain, even among veterans who did not report PTSD. This strength of this study was the use of a causal model to predict reintegration-related outcomes. Generalizability of this study was limited to veterans attending universities in the western part of the U.S., and the sample size used was small compared to the population it is trying to generalize about.

Among veterans from Iraq and Afghanistan who identified themselves as being in a relationship, 65% reported that their deployments and return home caused strain in their relationship, 59% reported readjustment difficulties in relationships, 54% reported communication challenges, 41% reported increased fighting, 38% reported facing financial challenges, 29% reported their partner was affected by their mental health injuries and 31% reported their relationship ended in separation or divorce (IAVA, 2012). Among Iraq and Afghanistan veterans receiving care at the VA, Sayer et al. (2011) found that marital status did not affect community reintegration difficulties of participants surveyed. Mixed findings from

these studies suggest a need for more research in assessing the impact of relationships on veteran community reintegration difficulties.

***Productivity.*** Resnick and Rosenheck (2008) studied the effects of PTSD on employment in veterans participating in a VHA employment rehabilitation program. Findings indicated that veterans who had a diagnosis of PTSD at discharge were less likely to have a job at the end of the program than others in the program who were homeless or had a substance abuse diagnosis. Among veteran participants from the wars in Iraq and Afghanistan seeking treatment at the VA, Sayer et al. (2011) found unemployed veterans had higher community reintegration difficulties than those who were employed. Members of IAVA substantiate this finding by reporting employment as a top priority in their lives. Seventeen percent of veteran respondents reported being unemployed, approximately 33% reported seeking alternative employment, and 37% reported government employment, with a risk of losing employment due to spending cuts (IAVA, 2012).

Elliot et al. (2011) found 63% of re-enrolling service members reported experiences of alienation on college campuses. Findings from this study also indicated that combat exposure and functional limits predicted greater frequency of PTSD; Social support predicted less frequency of PTSD, and PTSD predicted more alienation, strained relationships, and alcohol use. In studying academic challenges experienced by veterans, Livingston, Havice, Cawthon, and Fleming (2011) found that veterans reported the following mitigating factors: maturity, mission, mentality, and perseverance. Veterans sought assistance from other veterans within the school environment more than they did from institutional support programs for veterans. Veterans wanted to blend in and not be noticed as a special population. Veterans experienced isolated re-

enrollments and experienced difficulties in find other veterans to support them. Findings from these studies indicate that student veterans may benefit from further research on the impact of SOC on successful reintegration in academic environments (Bowen et al., 2000; McMillan & Chavis, 1986; Hollingsworth, 2011).

One of the barriers to work and productivity veterans face is homelessness. Gamache et al. (2003) studied the prevalence of women veterans who are homeless among the general population of women who are homeless. They found a higher proportion of women veterans in the population of women who were homeless than in the population of women who had housing. Findings also indicated that female veterans were significantly more likely to be homeless than non-veteran women. The study examined odd ratios between age cohorts, and it was found that women who were ages 45-54 were at least four times more likely to be homeless than women in other age categories. This study was limited by its use of multiple secondary datasets, and the authors noted that one of these datasets was limited to individuals who are homeless and have mental illness diagnoses.

***Community Participation.*** Johnson et al. (1997) studied the impact of homecoming reception on the development of PTSD in 247 male veterans receiving inpatient treatment for PTSD. The authors defined homecoming stress according to survey results as: (1) being insulted by family members about being a Vietnam veteran; (2) physically fighting over being a Vietnam veteran; (3) feeling angry at the government; (4) feeling resentful from treatment by others; and, (5) having other problems with cultural transitioning back to American society. Significant correlations were found between PTSD and shame, negative interactions, social withdrawal,

resentment, and “Total Homecoming Stress” (p. 264). Limitations of the study included the use of retrospective data and self-report bias.

Fontana et al. (1997) analyzed data from the NVVRS to develop a causal model that looked at the role of war and sexual trauma in the development of chronic PTSD among women veterans. They found that war and sexual trauma during service contributed from 22.7% to 29.3% of the effects on PTSD. A significant mediating variable in this study was the 63 to 63.6% effect of low support from family and friends at the time of homecoming. Effects from rejection by society at homecoming accounted for only 6.6% to 7.6%. Limitations of this study include a retrospective bias in connecting variables and the omission of other causal factors. In addition to this, it is suspected that sexual trauma was underreported during the Vietnam era. If this is the case, the relationship between sexual trauma and PTSD among female Vietnam veterans may be underestimated by this study.

Resnick and Rosenheck (2008) note the limited amount of research regarding outcomes for veterans participating in employment intervention programs. The authors studied the effects of PTSD on employment in veterans participating in a VHA employment rehabilitation program. Findings indicated that veterans who had a diagnosis of PTSD at discharge were less likely to have a job at the end of the program than others in the program who were homeless or had a substance abuse diagnosis.

In a more recent study with combat veterans from wars in Iraq and Afghanistan utilizing the VA medical services, Sayer et al. (2010) found 49% veterans reported difficulty with feeling connected to their civilian communities, and difficulty participating in community activities. Approximately 42% of the respondents reported that they felt disconnected from a

spiritual/religious life. In terms of perceiving community support on a national level, 61% of IAVA members did not believe that the President listened enough to their concerns and 75% felt the same way about Congress. Forty-two percent of respondents perceived that the VA supported veterans from the wars in Iraq and Afghanistan, 64% felt like the American public supports veterans, and 32% perceived support from corporate America. Eighty-one percent of members believed that membership in the IAVA improved the lives of veterans (IAVA, 2012). In their review of the literature on community support interventions and working with the military population, Hollingsworth (2011) and Bowen et al. (2000) developed community support models of intervention that have not been tested. Findings from these studies suggest further research needs to identify ways in which local, state, and national community capacity can successfully address the reintegration issues these veterans are facing.

*Self-care.* Sayer et al. (2010) found 45% of veteran participants from the wars in Iraq in Afghanistan reported having difficulty taking care of their health and 41% reported difficulty in taking care of chores at home (in the past 30 days). This study had a large sample size of 754 respondents from surveys mailed to addresses found in the VA database. Generalizability of findings is limited to Iraq and Afghanistan veterans who received services from the VA. In this review of the literature, this study was unique in specifically assessing issues of self-care among Iraq and Afghanistan veterans.

In terms of mental health, Rudd, et al. (2011) conducted a national study of student veterans, found 35% of participants stated they experienced “severe anxiety,” (p. 354) 24% stated they experienced “severe depression,” (p. 354) and approximately 46% reported experiencing PTSD symptoms. The authors suggest findings from the student veteran population



may reflect those reported by veterans from the wars in Iraq and Afghanistan. Among Iraq and Afghanistan war veterans surveyed (IAVA, 2012), 67% of respondents were concerned that veterans were not getting the mental health treatment they needed. From a community support perspective, 60% and 51% respondents were concerned that the DoD and the VA (respectively) were not addressing the mental health injuries of veterans in an adequate manner.

In terms of assessing PTSD, Wilcox (2010) conducted a study of 83 married combat male veterans in efforts to investigate impact of social support source on PTSD symptoms. Results from this study found a significant relationship between levels of PTSD and social support from family members, “military peers” (p. 179), and spouses. On the other hand, the author found no significant relationship between PTSD levels and the social support of friends. The author noted that findings from this study was limited to married veterans, who may be more prone to turning to family, spouses, and other military families for support. It was suggested that future research on social support systems include veterans who were not married.

Jakupcak et al. (2010) substantiated the need to conduct further research on unmarried veterans, social support systems and PTSD. In a secondary data analysis of information collected from 431 veterans referred to the VA for mental health services, married veterans and those reporting positive social support systems were less at risk for suicide. However, they note that PTSD was a mitigating factor in the effect of social support systems providing a protective barrier for the risk of suicide. Additionally, they note the limitation of self-report and a “treatment-seeking population” (p. 1004). The authors suggested that response bias may exist due to a veteran’s need to avoid stigmatization or secure compensation. The authors called for

future longitudinal research should test mediation and mediation models of PTSD, social support systems, and the risk of suicide among veterans from the most recent wars (OEF/OIF/OND).

In efforts to assess PTSD differences among male and female veterans, Fontana, et al. (2010) conducted a secondary data analysis comparing Iraq, Afghanistan, and the Persian Gulf and Vietnam wars who sought treatment for PTSD. Findings from this study indicate that female veterans from Iraq, Afghanistan, and the Gulf War had a lesser degree of psychopathology symptoms and more social support than female veterans from the Vietnam War. In the Gulf War it was found that women had less sexual trauma and less “non-combat non-sexual trauma” (p. 751) than their male counterparts. In the wars in Iraq and Afghanistan however, women reported a higher level of trauma than men and reported different psychopathology symptoms than men. The female veterans from Iraq and Afghanistan also reported less social and economic supports than male veterans did. Limitations of this study include a sample of convenience, the selection of the OEF/OIF veterans being limited mainly to the first set of troops who fought in the Iraq war, and the sample is not representative of veterans who are seen by the VA for non-PTSD related issues.

In a literature review conducted by Street et al. (2009), the topic of women veterans deployed to Iraq and Afghanistan was researched in regards to the issues that surrounded the development of PTSD. Findings indicated that female veterans were two times more likely to be diagnosed with PTSD than male veterans. It was also found that the risk for PTSD was different for men and women based on the traumatic event that was encountered. Findings of varying risk factors for PTSD among men and women suggests that future research in community support

interventions for PTSD among veterans should address the different reintegration needs among male and female veterans.

Greenberg et al. (2004) studied the effects of Continuity of Care (COC) and Intensity of Care (IOC) among female veterans receiving outpatient treatment for PTSD. The study found many negative outcomes associated with COC after the first four weeks of treatment, but after eight weeks of treatment, it was found that those with higher COC showed a decrease in violent behavior, PTSD symptoms, and an increase in functioning levels. In another study on women veterans and PTSD, Fontana and Rosenheck (2006) analyzed the comfort level of female veterans (with PTSD) seeking care in male-dominated environment. The study found most women participants reported being “somewhat comfortable” (p. 65). Participants also reported that having access to a services specifically aimed at women had the most impact on their comfort levels. Women from “minority” (p. 65) ethnic groups and individuals with higher levels of education reported lower levels of comfort than their counterparts. Authors suggested that veterans of other ethnic backgrounds may have reservations related to being treated in a Caucasian/White-dominated environment. It was also suggested that women veterans with higher levels of education may feel a stigma associated with receiving health services from a government institutions, commonly thought of in the U.S. for serving the poor. Authors emphasize these explanations are hypothetical. Further research is needed to substantiate reasons for discomfort in receiving treatment from outpatient community support services at the VA.

Veterans who face physical health challenges resulting from service-connected disabilities are considered low-risk for homelessness. On the other hand, Edens, Kaspro, Tsai and Rosenheck (2011) found this group to be at risk for the following issues: 1) drug use (OR =

3.3-4.7), 2) pathological gambling (OR = 2.0-2.4), 3) alcohol abuse diagnosis (OR= 1.8-2.0) and 4) personality disorders (OR =1.6-2.2) to be the strongest predictors for homelessness.

Another challenge faced by veterans with service-connected disabilities is polytrauma. The VA uses the term "polytrauma" (USDVA, 2011k, para. 2) to describe injuries in multiple parts of an individual's body resulting from the explosions seen in the recent wars in Iraq and Afghanistan. In a study of 340 veterans who had polytrauma injuries from the wars in Iraq and Afghanistan, Lew et al. (2009) found that 81.5% of these individuals had chronic pain, 68.2% were diagnosed with PTSD, and 66.8% had Persistent Post Concussive Symptoms (PPCS). Results from this study also found frequency at which these three conditions were present concurrently was 42.1% compared to when the frequency of these conditions being experienced individually 10.3%, 2.9%, and 5.3% respectively. Findings from this study point to the importance of a multiple-systems approach addressing the needs of veterans with polytrauma injuries as they return to civilian communities.

The last service-connected disability to be reviewed here is Traumatic Brain Injury (TBI). TBI occurs from external impact to the head. In the wars in Iraq and Afghanistan many TBI injuries have resulted from Improvised Explosive Devices (IEDs). Symptoms of TBI include: (1) lack of concentration; (2) changes in hearing, vision, smell, taste or touch; (3) speech problems; and, (4) changes in behaviors and emotions. TBI has a major impact on the injured veteran and those who care for him/her (USDVA, 2011k). Since WWI, the wars in Iraq and Afghanistan have seen the highest proportion of combat-related TBI. In a study of 3,102 wounded service-members from the wars in Iraq and Afghanistan, Owens et al. (2008) found the proportion of head and neck injuries were higher among this cohort compared to the proportion of this type of

injury reported in World War II, the Korean War, and the Vietnam War. Compared to previous wars, the authors found wounded service members from Iraq and Afghanistan had the highest proportion of injuries resulting from explosions. An interview with neurologist, psychiatrist, and Director of the Defense and Veterans Brain Injury Center (DVBIC) determined that 59% of the 450 TBI patients seen at Walter Reed Army Medical Center from 2003-2005 were diagnosed with TBI (Okie, 2005). Out of these patients, 56% had medium to severe TBI and 44% had mild TBI.

In another study of 91 veterans from the wars in Iraq and Afghanistan who reported blast exposure, Verfaellie, Lafleche, Spiro, Tun, and Bousquet (2013) found an association between reports of mild TBI and loss of consciousness and complaints of post-concussion symptoms levels of PTSD and depression symptoms. Results also indicated a significant association between PTSD and the functional limitations experienced by participants. Specifically, veterans with mild TBI and loss of consciousness were at greater risk for psychosocial functioning than veterans who did not have a mild TBI diagnosis or loss of consciousness. This association was found even when controlling for PTSD or depressive symptoms. Conclusions suggest that mild TBI and loss of consciousness greatly affects the long-term psychosocial adjustment of veterans.

Hollingsworth (2011) noted that veterans frequently face: (1) TBI; (2) amputations; (3) auditory and visual impairments; (4) Spinal Cord Injury (SCI); and, (5) PTSD. The authors suggest that a coordination of clinical and other support services may improve outcomes veterans with these conditions. Further research should assess the efficacy of community engagement interventions such as CFT in treating these patients.

Carney et al. (2003) analyzed data from population-based surveys to examine the use of health care utilization by female veterans who had been deployed during the Gulf War. Findings indicate that five years after being deployed, women, were more likely than men to use health care services and receive compensation from the VA. According to the authors, these findings need to be considered in light of general population studies that also report a higher rate of medical service use by women than men. In terms of limitations, they were unable to identify whether differences in service utilization and compensation was due to environmental stressors that affected women in particular or due to the difference between how men and women experienced stressors. Other limitations of this study were the small percentage (5%) of women within the sample and possibly recall bias, since data were collected five years after the war. The authors suggest that future studies on gender and the health consequences of combat exposure should seek to measure combat exposure shortly after the incident.

*Leisure.* Among 378 Iraq and Afghanistan war veterans, Sayer et al. (2010) found 47% reported problems with “enjoying or making good use of free time” (p. 593). In their attempts measure post-deployment community reintegration among veterans, Sayer et al. (2011) used research in medical rehabilitation as a basis for their study on veteran community reintegration (Dijkers, 1998). In reviewing rehabilitation literature, Schönherr, Groothoff, Mulder and Eisma (2005) suggest that quality of life (including participation in leisure activities) can be considered the highest outcome goal of successful rehabilitation/reintegration. These authors measured leisure activities among patients by assessing the following domains in hours per week: (1) sports; (2) clubs; (3) other leisure activities; and, (4) total leisure participation. This study compared pre-injury hours compared to post-injury hours. Future research on participation in

leisure activities among veterans could utilize the previously mentioned indicators to compare pre-deployment versus post-deployment hours of leisure activities. Limitations to the use of this technique would be the retrospective data collected about pre-deployment information (Rubin & Babbie, 2010).

*Perceived Meaning in Life.* Bryan, Jennings, Jobes and Bradley (2012) critiqued traditional suicide prevention techniques currently used in the U.S. military and suggested that the key to effective suicide prevention is understanding the cultural (service member's/veteran's perspective) context of these mental health consumers. The authors report that the military culture value system includes the following facets: (1) Mental toughness; (2) Collectivism vs. individualism; (3) Self-reliance (including difficulty asking for help); (4) Self-sacrifice - including sacrificing of one's life for the "greater good" (p.101); and, (5) Not fearing injury/death –resulting from training and combat experience. Authors discuss all these aspects of the military culture in the context of suicidal risk factors.

Based on the military values noted above, Bryan et al. (2012) recommend the following strategies be employed when seeking to prevent suicide among current or former military service members: (1) using a strengths based approach; (2) reframing deployment as having potential for personal growth and development; (3) enhancing quality of life from a community mental health perspective; (4) addressing suicide prevention from a public health perspective; (5) use of a multi-model approach of education/awareness that should be evaluated for effectiveness; and, (6) the implementation of evidence-based treatments for suicide prevention by mental health professionals.

The strength of Bryan et al. (2012) study is its application of military culture to suicide prevention interventions. Most of the recommendations appear to be culturally competent in relation to the military culture. Further research is needed to provide empirical support for these recommendations. The last strategy of providing evidence-based mental health interventions for suicide prevention substantiates the need to do future research to find out if current evidenced-based treatments are effective when employed with the military population.

In a retrospective cohort study of veterans diagnosed with a depressive disorder, Zivin et al. (2007) found that 1,683 veterans (.21%) committed suicide within the five-year study period. Among demographic categories, Caucasian/White male veterans who suffered from depression between 18-44 years of age had the highest rates of suicide. Individuals living in the southern or western regions of the United States were also more at risk for committing suicide, as well as veterans with a history of psychiatric hospitalizations and those with a comorbid substance abuse diagnosis. On the other hand, veterans having a comorbid PTSD diagnosis, individuals with service-connected disabilities, female veterans, and African-American veterans with a depression diagnosis had much lower suicide rates compared to those most at risk. Suicide rates in the sample population were 7-8 times higher than the general population, although comparable to the rates of depressed individuals within civilian mental health systems. Strengths of this study included a large sample size (N=807,694) retrieved from a national data base and combined with the National Death Index (NDI). The longitudinal time frame of the study (1999-2004) was an additional strength. Limitations of using secondary data included the inability to control for family structure, community resources, stress levels and a history of suicide attempts. Since data



were limited to patients within the VA system, it is difficult to generalize findings to veterans who are not patients at the VA.

In a more recent study of student veterans on campus, Rudd et al. (2011) found 46% of participants reported thinking about suicide, 20% of these veterans reported having a plan to commit suicide, 10.4% reported that they thought about suicide “often” or “very often,” (p. 354), 7.7% reported having attempted suicide in the past, and 3.8% reported that they would “likely” or “very likely” (p. 354) commit suicide. The results of hierarchical multiple regression analysis found that PTSD mediates the relationship between depression and the suicidal issues. No other moderating or mediating effects were found, but, it is unclear whether environmental factors were assessed since the study focus was on PTSD, depression and suicide. For a primary data collection, and the first to address suicidal ideation among student veterans on campus, the sample of 628 participants was fairly large. The proportions of males to females in the sample (79% & 21%, respectively) and ethnic/racial ratios (White/Caucasians [77%]; Hispanics/Latinos [12%]; Asian Americans [3%]; and, Native Americans/American Indians [1%]) were fairly similar to U.S. Census Bureau (2011) military veteran gender and ethnic/racial breakdowns. All participants were recruited from the Student Veteran’s Association (SVA), which limits the generalizability of this study’s findings.

***Diversity issues in Veteran Community Reintegration.*** From a historical perspective, Kulka et al. (1988) in the NVVRS studied the prevalence of PTSD in the following ethnic groups: White/Caucasian; African American/Black; Hispanic/Latino; Native American/American Indian; and, Asian/Pacific Islander. Results from this study indicate that lifetime prevalence rates for PTSD were higher among all “ethnic minority” groups (with the

exception of Japanese Americans). Using data from two congressionally-mandated studies, the NVVRS and a follow-up American Indian Vietnam Veterans Project (AIVVP), Beals et al. (2002) found a higher prevalence rate of 1-month and lifetime PTSD in Native American samples than the Whites/Caucasian group. When logistic regression was used to control for differential war-zone stressors, these differences were not significant. In addition to this, findings from this study indicated a “marginally significant” (p. 94) difference in PTSD rates among African American/Black and Hispanic/Latino veterans, compared to the Caucasian/White cohort due to differential war-zone stress exposure. In terms of bivariate relationships, age at the time of interview, ethnicity, exposure to atrocities and violence, combat exposure and deprivation were found to have significant relationships with current PTSD symptoms. In contrast, when the data was put in a multivariate model, only exposure to “atrocities and violence” (p. 91) had a relationship with current PTSD symptoms.

Limitations of the Beals et al. (2002) study included retrospective questions on events that happened 25 years before. Authors chose a sample consisting of Southwest and Northern Plains tribe Native American/American Indian groups. Although generalizability is limited in this regard, the rationale for this choice was the regional representation of these groups. In addition to this, the Native American/American Indian sample was limited to veterans who lived on reservations. This limits the generalizability of findings even further. This study restricted reintegration variables to PTSD symptoms identified through clinical interviews conducted during the AIVVP. Subsequently results of this study may be confounded by clinician bias and other community reintegration issues that may not have been controlled for (Sayer et al., 2011).

According to Loo (1994, 2012), case studies of African American/ Black and Native American/American Indian veterans reveal psychological disturbances due to the connection they saw between the oppression of the Vietnamese people and the oppression of their own people. Loo et al. (2001) examined exposure to racism in a study of 300 Asian American Vietnam veterans by using hierarchical regression. The authors found race-related stressors accounted for a significant variance in PTSD symptoms (20%) and psychiatric symptoms (19%) in addition to combat exposure and military rank.

This study was limited to retrospective examination of combat exposure and race-related events. Additionally, sampling procedures were limited to snowballing and drawing contact information from the VA database and the DMDC due to difficulty in recruiting participants who met the Asian-American Vietnam veteran criteria. Thus, the generalizability of findings from this study is limited to Asian American Vietnam veterans. This study is also limited to examining the impact of race-related stressors in clinical outcomes like PTSD and psychiatric symptoms, as opposed to other domains of veteran reintegration (Sayer et al., 2011). Findings from Loo et al. (2001) emphasize the need to account for race-related stressors in future reintegration research among veterans from the wars in Iraq and Afghanistan.

Rosenheck et al. (1997) found racial disparities in a nationwide study of 564 male veterans who were homeless and mentally ill. The authors cite previous literature to substantiate racial disparities in the homeless population and in health care treatment outcomes (Rosenheck & Fontana, 1996; Rossi, 1989). Specifically, it was noted that individuals who identified themselves as African American/Black were four times more likely to be homeless than the general population (United States Department of Housing and Urban Development[HUD] &

USDVA, 2011). Some of the results from this study substantiated previous studies and statistics. Authors found African American/Black male veterans were more likely to have a substance abuse diagnosis, a history of felony arrests, and be hospitalized than Caucasian/White male veterans. Conversely, this study's results found African American/Black male veterans had a significantly higher amount of social support systems, and contact with these systems than White/Caucasian male veteran participants. Results from multivariate analyses found African American/Black male veterans improved less Caucasian/White male veteran participants in outpatient treatment programs. On the other hand, results indicated that there was not a significant difference found in the improvement rates of Caucasian/White and African American/Black male veterans who participated in residential treatment programs. Future research is needed to substantiate and provide an explanation for "preliminary findings" (p. 637) in this study. Authors also suggested that future research take a more qualitative approach by evaluating the "personal experiences of patients of different races in different types of treatments" (p. 637). The study did not address the cultural biases found in psychiatric/psychological evaluations that may have led to higher levels of substance abuse diagnosis, history of felony arrests, and increased hospitalizations found in the sample of African American male veterans, nor did it discuss these implications (Qureshi et al., 2009).

In terms of ethnic disparities in veteran community reintegration, Sayer et al. (2011) found "Nonwhite" (p. 661) veterans experienced higher levels of difficulties than their Caucasian/White counterparts in a sample of 754 participants. Strengths of this study included the use of samples from the most recent wars (OEF/OIF/OND). However, participants in study were limited to veterans recruited from the VA database. The authors described the

groundbreaking efforts of this study as “the first systematic study of community reintegration problems and associated treatment interest among Iraq-Afghanistan veterans who use VA medical care” (Sayer et al., 2010, p. 594). Although participants were weighted on demographic variables (including the various different ethnic groups), findings of community reintegration difficulties were reported in a combined into a “Nonwhite” category. Future research may be able to disentangle the different ethnicities for a more specific explanation of how community reintegration difficulties are perceived by veterans from each ethnic group (Loo et al., 2001). Future research should also attempt to recruit participants outside the VA system in efforts for findings to be generalizable to veterans who do not utilize this system. This suggestion is supported by reports from Mothi et al. (2011) that an underutilization of services was found among African American/Black and Asian veterans.

Published research concerning Lesbian, Gay Bisexual, Transgender & Questioning (LGBTQ) military veterans is scarce. McDaniel (1989) used data from the Educational and Biographical Information Survey (EBIS) to compare pre-service background characteristics related to security and suitability among those who were discharged from the military for their sexual orientation and others who joined the military. Results indicated that in general, the sample of individuals identifying themselves as gay or lesbian showed better pre-service adjustment levels in relation to school behavior as compared with the heterosexual individuals who were studied. In the area of substance abuse, the study found that participants who identified themselves as gay or lesbian scored less in their adjustment abilities than heterosexual individuals. Overall, women in this study scored higher on their abilities to adjust than the men.

However, individuals who identified themselves as lesbian tended to score lower than women who identified themselves as heterosexual.

The McDaniel (1989) study appears to present inconclusive findings. In addition, it relies on discharge based on “homosexuality” (p. ii) to define the sample of individuals identifying themselves as gay or lesbian. The author notes that there is likely to be an element of inaccuracy in this method of grouping. Another limitation of the study is its analysis of a secondary data set (EBIS data from 1983). The author also notes a small sample size and scores that deviate from a normal distribution are possible reasons for the inconclusive results.

In a more recent study, Moradi (2009) contends that this study is the first to examine these relationships between “sexual orientation disclosure, concealment, and harassment with military unit social and task cohesion” (p. 525). The author conducted an internet study of 445 Lesbian, Gay, Bisexual, and Transgender (LGBT) U.S. military veterans recruited from organizations, networks, and websites for LGBT service members. Results from this study indicate that disclosure of sexual orientation was connected with positive perceptions of unit cohesion and indirectly connected to positive perceptions of task cohesion. Findings also indicated that sexual orientation-based harassment was negatively related to positive perceptions of unit cohesion and indirectly connected to positive perceptions of task cohesion. Sexual orientation concealment was also found to have a similar negative relationship towards unit and task cohesion.

This study had a fairly large sample for being the first study of its kind (Moradi, 2009).

Limitations to generalizability of findings include recruitment of participants from supportive networks and organization and a proportionately underrepresentation of African-American/Black

LGBTQ veterans (2%). A strength of this study is the use of causal models that were tested through structural equation modeling (SEM) to test the relationship of outcome variables. Since this study was published prior to the over-turning of DADT (SLDN, 2012), a post-DADT this study replicating the methods in this study could be used to provide an empirical analysis of policy effectiveness. Future research can also build on this study by assess how military experiences related to sexual orientation affect perceptions of veteran community reintegration.

**International Veteran Community Reintegration. *Canadian veterans.*** One of the earliest studies in this review assesses VCR issues among Canadian Vietnam veterans (Stretch, 1991). A sample of 164 Canadian veterans who served with the U.S. military in Vietnam were recruited from the Canadian Vietnam Veterans Association (CVVA). Significantly high correlations were found in veterans who had experienced PTSD symptoms and physical health problems. Veterans who experienced PTSD symptoms also reported being more affected by 15 of the 16 psychosocial measures. A strength to this study was the use of the Vietnam Era Veterans Adjustment Survey (VEVAS) (Stretch, 1986) which was determined to be “reliable and valid instrument” (p. 188) for measuring study variables. The Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1964) was used to control for response bias. Limitations of this study include a relatively small sample size (N=164), low response rate (35%), and limiting racial categories to White “other” (p. 188) when the latter category consisted of 12% of the sample population in the study.

Blais et al. (2009) conducted three studies on the Army Post-Deployment Reintegration Scale (APDRS) among Afghanistan veterans from the Canadian Forces (CF). The purpose of the first study was to test the fit of an eight-factor model of reintegration via exploratory factor

analysis (EFA) using a sample of 374 participants. The purpose of the second study was to refine and reduce items based on the results of the EFA from the first study. In the second study, the authors used a sample of 474 participants. The purpose of the third study was to replicate the results of validity and reliability of scores in the (APDRS) in a separate sample of 519 participants. For the purpose of investigating construct validity, the authors examined the relationship between the APDRS and the following associations and constructs of interest: (1) Reintegration attitudes and psychological stress; (2) Personal, family, and work reintegration stress and indicators of occupational stress; and, (3) Job-related affect and emotional attachment to the military.

Blais et al. (2009) found that greater negative attitudes in all reintegration domains (personal, family, work) were associated with measures of psychological distress and PTSD symptoms except for work-related attitudes. The highest correlations were found among negative work reintegration stressors and family-related stressors. Consistent with previous literature in the area of work and family domains (Parasuraman & Greenhaus, 2002), this study found an association between negative family reintegration attitudes and work indicators. Based on their findings and the limitations of their study, Blais et al. (2009) suggest future research in the area of reintegration use a more longitudinal approach of collecting data for the purpose of identifying causality among relationships found in this study as well as for providing an assessment of reintegration issues that occur after the two-four month return from deployment used as selection criteria in this study.

***German military service members.*** Inclusion of this study in this VCR literature review is due to the international military application of Peterson, Speer and McMillan (2008)'s Sense



of Community (SOC) measurement. Wombacher, Tagg, Bürgi, and MacBryde, (2010) field-tested a German version of the Brief Sense of Community Scale (BSCS-G) with a sample of 270 sailors. The purpose of this study was to assess measurement properties of the BSCS (Peterson et al., 2008) when translated into German and field tested in an international, military culture. Results of this study indicated that CFA factor loadings support constructs of *needs fulfillment*, *membership*, *influence*, and *emotional connection* in the German version of the BSCS. The authors found that this model had good overall fit had a better fit than the two alternative model specifications. Large parameter estimates in this study suggest that findings are statistically significant. Wombacher et al. (2010) encouraged future research to substantiate findings of measurement strength, and cross-cultural relevance found in this study.

***Ethiopian veterans.*** Negewo-Oda and White (2011) conducted semi-structured interviews with 20 Ethiopian women veterans from the Tigray People's Liberation front who lived in Addis Ababa. These women held powerful roles in their military positions, but returned back to a culture with traditional gender roles. With regards to social integration, findings indicate that culture and community norms these women returned to pressured them to adjust to a subordinate role to men in their families, when they may have been in leadership roles in their military units. Issues in economic reintegration, such as family responsibilities, affected some of the women veterans' ability to re-locate for career advancement or employment. The authors also discuss how patriarchal power based in religion and societal traditions affects returning women veterans, and how women respond to issues of power conflict. Findings from this study suggest that the need for future research to assess the interface of culture and women's rights in addressing issues of power, oppression, and reintegration among veterans returning to different

communities can even be applied to increasing the knowledge of veteran community reintegration among women veterans from various cultural backgrounds in the U.S.

***Peacekeepers in Somalia.*** Orsillo, Roemer, Litz, Ehlich, and Friedman (1998) suggested that military members who participated in peacekeeping missions are at increased risk for psychiatric when they return home. The study sample was taken from U.S. military service members who served in Somalia under Operation Restore Hope (ORH) and Operation Continue Hope (OCH). In addition to war-zone related stress, researchers found that almost half of the sample reported difficulty dealing with the rules that existed regarding restraining the use of force in some situations. A quarter of participants reported stressors due to the physical environment in Somalia and having negative interactions with Somali people. Traditional stressors of separation from family, friends, and home and loss of privacy also affected approximately half of the sample. Less than a quarter of the sample reported positive experiences from military pride and experiencing a new culture. In terms of prevalence, more than one-third of participants reported psychiatric symptoms such as hostility, psychoticism, depression, and paranoid ideation. Current psychiatric functioning was predicted by combat exposure and a good team experience in the military as well as having pride in the military.

A strength of this study was the large sample size of 3,461. However, the generalizability of findings is limited to U.S. peacekeepers serving in Somalia. This experience may be different for service members who served in the Iraq and Afghanistan wars. Due to the lack of pre-deployment psychiatric information, Orsillo et al. (1998) noted their inability to distinguish the mental health consequences of war versus participants' initial psychiatric problems. Authors also note that measurements of psychiatric problems were based on self-report as opposed to

diagnostic criteria. Findings from this study suggest that other variables also impacted the mental health symptoms experienced by participants. In determining associations between veteran community reintegration issue and other variable, future research should control for confounding variables found in the literature.

**Weaknesses and/or gaps in empirical studies.** Empirical studies reviewed in the previous section indicate disparities in reintegration related outcomes among women, African Americans/Blacks, Native Americans/American Indians, Asian Americans and some LGBTQ individuals (Rosenheck et al., 1997; Beals et al., 2002; Loo et al., 2001). In addition to this, findings from the studies reviewed indicated that unemployed veterans and veterans who reported PTSD symptoms were more at risk for reintegration difficulties. Caucasian/White male veterans who suffered from depression, veterans living in the southern or western regions of the U.S., and those with substance abuse or previous psychiatric hospitalization are more at risk for committing suicide (Zivin et al., 2007). Implications of these findings suggests that more research is needed to understand the extent of community reintegration difficulties/perceptions of community support/perceptions of community intervention effectiveness among the at risk veteran groups mentioned above (Sayer et al., 2011).

### **Theoretical Perspectives**

Multiple theories and models of reintegration are explored in this section for the purpose of providing a holistic “lens” (CSW, 2011, p. 30) in which to view veteran community reintegration issues. Specifically, the following theories and models will be explored: (1) Domains of military to civilian reintegration; (2) Cultural transitioning and veteran reintegration;

(3) Feminist perspective of veteran community reintegration; (4) United Nations (UN) Disarmament, Demobilization and Reintegration (DDR) model; (5) VA community integration model; (6) Resilience perspective of veteran reintegration; and, (7) SOC model of veteran community reintegration (Agaibi & Wilson, 2005; Amdur et al., 2011; Bowen et al., 2000; Negewo-Oda & White, 2011; Ray & Heaslip, 2011; Sayer et al., 2011; UN, 2012).

**Domains of Veteran Community Reintegration.** As mentioned before, Sayer et al. (2010, 2011) developed and tested their model of VCR in a sample of Iraq and Afghanistan veterans from the VA database. Authors measured the following domains of VCR: *interpersonal relationships; productivity; community participation; self-care; leisure; and, perceived meaning in life*. The Military to Civilian Questionnaire (M2CQ) these authors created to measure these constructs had a high internal consistency (Chronbach's  $\alpha$  .95). Results from this study indicated that veteran who identified themselves as a race/ethnicity other than Caucasian, those who were unemployed, and those who reported PTSD symptoms were had higher rates of community reintegration difficulties.

Blais et al. (2009) cite previous research that veterans who return from deployment face a multitude of challenges as they begin the process of community reintegration in personal, family, work and culture domains of their lives: psychological isolation increases risk for developing mental illnesses (Agaibi & Wilson, 2005; Aldwin, Levison & Spiro, 1994; Orsillo et al., 1998). For example, families may have matured and developed new routines (Blais et al., 2006) higher unemployment rates and discrimination from employers (Harrell & Berglass, 2012) as well as difficulties transitioning from military culture to civilian culture (Ray & Heaslip, 2011).

**Cultural transitioning.** Ray and Heaslip (2011) applied the concept of cultural transitioning to Canadian military veterans as they returned home. In order to successfully transition back into society: military culture and civilian culture the veteran has to maintain two cultures. The transition process that takes place when a service member returns to his or her community from combat includes taking the role of father or mother, wife or husband, son or daughter, co-worker, and so forth.

Cultural transitioning is also experienced by the support system and communities to which the service member returns. Another important cultural characteristic of veterans is that the older generation of veterans shares wisdom and experience with the younger generation of veterans. Ray and Heaslip (2011) defend this position by describing veterans as having shared language, traditions, and places of gathering. Although this article focused on cultural transitioning, the intersection of ethnic cultures and military and civilian cultures was not addressed. Findings indicate that future research should assess the effectiveness of community support interventions from the perspective of how well these interventions are assisting service members in the acculturation process.

**Feminist perspective on Veteran Community Reintegration.** Negewo-Oda and White (2011) chose to analyze VCR among Ethiopian women war veterans from a feminist perspective. The authors found that communities and families also have to adjust to the return of women veterans. In interviewing Ethiopian women war veterans, the authors identified the following themes of reintegration: social reintegration, political reintegration, and economic reintegration. *Social reintegration* was defined as a process through which the service member and her family engage with the community. *Political reintegration* was used to refer to the process a service

member and her family went through in efforts to engage community decisions. *Economic reintegration* was used to define the process of a veteran and her family with regard to engaging in employment to sustain a good quality of life.

**Disarmament, Demobilization and Reintegration.** Department of Peacekeeping Operations (DPKO) (United Nations [UN], 2012) describes ways in which it seeks to promote gender equality in its policies peacekeeping operations as well as post-conflict reintegration. As defined by DPKO, reintegration “is the process by which ex-combatants acquire civilian status and gain sustainable employment and income” (para. 4). This definition is similar to Negewo-Oda and White’s (2011) model of reintegration. The UN model of Disarmament, Demobilization and Reintegration (DDR) adds to the concept of reintegration by emphasizing it as having “an open time-frame [and] primarily taking place in communities at the local level” (para. 4).

This model suggests that former combat personnel must become active in the peacekeeping process by “disarming themselves, disengaging from the military structure” (para. 7), and integrating into communities through social and economic participation. It is important to note that the DDR model is the current framework for developing and implementing policies in the DPKO. At the time of this literature review, research assessing the efficacy of this model was not found.

**System of Care and Veteran Community Reintegration.** Amdur et al. (2011) suggests that the current model of care for veterans returning from Iraq and Afghanistan consists of connecting them to appropriate resources in their communities. Specific interventions include case management services, polytrauma services, community-based readjustment counseling, support services for caregivers; and coordinated outreach services to veterans. The authors detail

the following coordinated outreach programs which seek to assist veterans in their reintegration process: (1) Demobilization Initiative; (2) Reserve and National Guard Yellow Ribbon Reintegration Program Support Initiative; (3) VA's Partnership with Reserve National Guard's Transition Assistance, Advisors (TAA) Initiative; (4) Combat Veteran Call Center Initiative; (5) Reserve and National Guard Post-Deployment Health Reassessment Support Initiative; (6) Individual Ready Reserve (IRR) Muster Initiative; and, (7) an internet webpage for OEF/OIF veterans. If there is an assessment of the effectiveness of this model of treatment, it has not been made public at the time of this review.

**Resilience and trauma.** In their review of the literature on Post-traumatic resilience to trauma, Agaibi and Wilson (2005) found that resilience was connected to personality traits made up of the following characteristics: extroversion, high self-esteem, assertiveness, hardiness, internal locus of control and cognitive feedback. Other resilience characteristics found in this study included: flexibility, a sense of humor, the ability to disengage, and transcend situations. This study found that those who possessed these characteristics were more likely to recover from stressful or traumatic situations and resume normal levels of functioning. This article provided an in-depth and historical overview of the literature on resilience and trauma. A limitation of this article was that methodologies employed to collect the literature used in this study were not reported. While the interaction of situational and personal characteristics was discussed, the model of resilience in response to trauma did include the impact external/environmental factors on resiliency.

**Sense of Community as a Resilience factor for Veteran Community Reintegration difficulties.** Mancini and Bowen (2009) suggested that community resilience is best understood

in the context of social organization theory. Specifically, Cantillon et al. (2003) discusses how SOC measures processes in community social organization. McMillan and Chavis (1986) define SOC as “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members needs will be met by their commitment to be together (p.9).

In a military context, Bowen et al. (2000) used this theoretical framework to develop a model of increasing positive community results. This community capacity model suggests that social capital is made up of an individual’s formal and informal networks. SOC is then considered reciprocally related to community capacity that reciprocally meditates the relationship between SOC and community results. Hollingsworth (2011) suggests a CFT model based on the community capacity model to assist veterans and their families as they cope with deployment and return from their deployment. The author notes the need for future research to test the influence of community engagement on adjustment levels of veterans and their families.

Further research should build on the strengths of all these theoretical perspectives. For veteran community reintegration research among U.S. military veterans, it may be beneficial to employ the use of Sayer et al. (2011, 2010) domains since it has been tested in in this country. In addition to this, it appears that many researchers have called testing SOC as social capital to harness when addressing the issue of veteran reintegration. This approach is also in line with the social work strength’s perspective (Bowen et al., 2000; Mancini & Bowen, 2009; Hollingsworth, 2011; McMillan & Chavis, 1986; Saleebey, 2008).



## **Methodological Approaches in Previous Research**

The Presidential Task Force on Military Deployment Services for Youth, Families and Service Members suggests that there is a lot of research regarding issues faced by families and service members in the area of reintegration (APA, 2007). The following sections will critique previous methodologies used in research on veteran community reintegration issues (CSW, 2011; Rubin & Babbie, 2010). The initial timeframe of studies to be reviewed ranging from 10 years before (1991) September 11, 2001 to 10 years after (2011) the terrorist attack that took place on that date. The rationale for this timeframe was to compare veteran reintegration research that occurred before and after the start of the most recent wars Iraq and Afghanistan (OEF/OIF/OND) (Investigating Power, 2013). However, the inclusion of studies with variables of interest such as gay and lesbian pre-service adjustment (McDaniel, 1989) and suicidal risk factors (Bryan et al., 2012; IAVA, 2012) increased the timeframe of this review (1989 to 2012).

A purposive selection process was used to identify these studies that addressed community reintegration issues among at-risk subgroups within the veteran population (Rubin & Babbie, 2010). An extensive search of peer-reviewed literature was carried out using *ProQuest Psych Info*, *EBSCO Academic Search Premier*, *Social Work Abstract* databases. A dissertation in this area was obtained from the University of Tennessee (Oliver, 2010). Gray literature was obtained through government websites, research centers and so forth. Search terms used included variables related to veteran reintegration such as community reintegration, diversity, employment, homelessness, PTSD, race/ethnicity, readjustment, self-care, sexual orientation, women, and so forth. This search resulted in 42 empirical articles.

**Research designs in previous research.** Based on research designs defined by Rubin and Babbie (2010), six quasi-experimental studies were found in this review (Calhoun et al., 2002; Carney et al., 2003; Gamache et al., 2003; Greenberg et al., 2004; Hoge et al., 2008; Riggs et al., 1998). Four of these studies used a non-equivalent comparison group design (Calhoun et al., 2002; Carney et al., 2003; Hoge, et al., 2008; Riggs et al., 1998). Another study was longitudinal and used a multiple post-test design (Fontana & Rosenheck, 2006) and the third study was a pre-post-test design (Rosenheck et al., 1997). Carney et al. (2003) used a combination design of cohort and cross-sectional. In addition to this, twenty-three studies non-experimental designs fell into cross-sectional, exploratory, and descriptive categories (Adler-Baeder et al., 2006; Aldwin et al., 1994; Blais et al., 2009; Burnett-Zeigler et al., 2011; Boutin, 2011; Elliot et al., 2011; Carney et al., 2003; Fontana et al., 2010; Fontana & Rosenheck, 2006; Fontana et al., 1997; Gamache et al., 2003; Greenberg et al., 2004; Hoge et al., 2008; Jakupcak et al., 2010; Johnson et al., 1997; McDaniel, 1989; Moradi, 2009; Orsillo et al., 1998; Resnick & Rosenheck, 2008; Rosenheck et al., 1997; Rudd et al., 2011; Sayer et al., 2010; Stretch, 1991; Wilcox, 2010).

Four studies were found to have the specific purpose of assessing measurements related to veteran reintegration. In particular, Sayer et al. (2011) assessed the Military to Civilian Questionnaire (M2CQ), an instrument used to measure community reintegration difficulties. Oliver (2010) conducted a study assessing measurement equivalence of the PDHRA scale with men and women in the U.S. Air Force. Loo et al. (2001) conducted a study to measure exposure to racism with the purpose of developing and validating the Race-Related Stressor Scale (RRS) used in this study to assess Asian American Vietnam veterans. The earliest measurement study

reviewed was assessed one that the applicability of the Trauma Questionnaire (TQ) to women veterans (McIntyre et al., 1999).

**Sample sizes and strategies in previous research.** Sample sizes of studies in the literature reviewed ranged from a longitudinal study which consisted of 807,694 participants (Zivin et al., 2007) to a qualitative study of 1 participant (Loo, 1994). Four reported using stratified random sampling (Carney et al., 2003; Gamache et al., 2003; Greenberg, et al., 2004; Sayer et al., 2011). The remainder of the samples in this review appears to use various other types of non-probability sampling. Adler-Baeder, et al. (2006) reported the use of representative sampling techniques with two of the three comparison samples in their study. Five studies used purposive sampling techniques (Fontana et al., 2010; Hoge et al., 2008; Loo et al. 2001; Resnick & Rosenheck, 2008; Rosenheck et al., 1997). Eight studies reported using availability sampling techniques (Adler-Baeder et al., 2006; Fontana & Rosenheck, 2006; Greenberg et al., 2004; Jakupcak et al., 2010; McIntyre et al., 1999; Fontana et al., 1997; Johnson et al., 1997; Stretch, 1991). Three studies specifically reported the use of snowball sampling techniques (Negewo-Oda & White, 2011; Livingston et al., 2011; Loo et al., 2001).

**Data collection, instrumentation, and measurement.** *Military to Civilian Reintegration. Military to Civilian Questionnaire (M2C-Q).* Sayer et al. (2011) used secondary data collected from the M2C-Q developed for a previous study (Sayer et al., 2010) to assess the psychometric properties of the M2C-Q instrument. Data analysis included the comparison of scores from the M2C-Q with scores from the four other measures of constructs thought to be related to community reintegration difficulty. The Mental Competent Summary (MCS), SF-12v2 (Quality Metric, 2013) assesses for overall mental health. The Primary Care PTSD Screen (PC-

PTSD) (Prins et al., 2004) assessed for PTSD risk. The Two-Item Conjoint Screen assesses for risk of alcohol and drug use (Brown, Leonard, Saunders & Papasouliotis, 2001). Finally, a one item question asking the veteran about overall community reintegration difficulty was developed by the authors and used as a comparison for the measure. Reliability coefficient scores, inter-item correlations and item-total correlations were used to assess the internal consistency of the M2C-Q measurement. Factor analysis was used to examine the construct validity of this scale.

The strengths of this methodology include the rigorous assessment of reliability of scores and validity of the scale (Sayer et al., 2010, 2011). This scale was found to be associated with scores from scales that are theoretically related to reintegration issues. The use of secondary data for this study could possibly be a limitation, however since it was collected using the scale being assessed; the purpose of the primary data collection appears to be in line with its secondary use. With regards to sampling methods, this study is limited to Iraq and Afghanistan combat veterans seeking treatment with the VA. Since this survey was used in a cross-sectional study, its sensitivity to time could not be assessed. Future research using this scale in longitudinal research is needed to assess this area.

*Army Post-deployment Reintegration Scale (APDRS)*. Blais et al. (2009) assessed the development and measurement qualities of the APDRS, designed to assess the attitudes of military personnel in relation to reintegration. In their first study, they found support their model of post-deployment reintegration attitudes. In their second study, authors refined the model to the positive and negative aspects of personal, family, and work reintegration and reduced the length of the scale. They also conducted an initial assessment of factorial validity and internal

consistency reliabilities. In their third study, the subscales of the APDRS were correlated with dependent variables of PTSD and organizational commitment.

Strengths of the methodology used in this study include the use of factor analyses, and correlations that supported reintegration dimensions of the APDRS. Scores on scales were correlated with measures of personal and organizational well-being in a theoretically consistent manner. Limitations to this research include its exclusive reliance on self-report measures. In addition, the design of this research was only focused on correlational relationships and did not address the issue of causality. The authors suggested that future research should include objective indicators of health and well-being as well as examining the direction of correlated variables (Blais et al., 2009). Although there are many strengths to this study, its generalizability is limited to Army personnel in the Canadian Forces, and may be less applicable to the current research proposal of veterans in the U.S. military.

***Mental Health.*** *National Vietnam Veterans Readjustment Survey (NVVRS).* Measurement techniques used to assess PTSD among veterans has been debated in the literature. Dohrenwend et al. (2006) questioned findings of PTSD rates from the NVVRS (Kulka et al., 1990) due to methodological issues such as recall bias and a study design which used retrospective data analysis techniques. Findings from the more recent study indicate that 18.7 % (versus the original 30.9%) of the sample population (N=1200) had developed PTSD over the course of their lives. In addition to this, the authors found that 9.1% (versus the original 15.2%) were suffering from PTSD approximately 10 years after the war.

***Primary Care PTSD Screen (PC-PTSD).*** More recently, Oliver (2010) conducted a study using U.S. Air Force secondary data set results from the PC-PTSD, which is a screening tool

used to assess the risk of PTSD in the military. Data analyses included Differential Item Functioning (DIF), Confirmatory Factor Analysis (CFA), logistic regression, diagnostic likelihood ratio methods. This study found no statistically significant differences in the way this instrument scores men and women.

Strengths of this study include the rigorous analyses of validity (CFA & DIF) in addition to predictive data analyses such as diagnostic likelihood ratio methods. Findings from this study are not applicable to the entire population of the U.S. Air Force who returned from deployment within a 90-180 day time frame during 2008-2009. Exclusion criteria limited participants to those who returned to for medical visits 90 days after return from deployment and resulted in the elimination of individuals in the Reserve and National Guard. Findings from this study are not generalizable to the entire military population, nor are they generalizable to the veteran population. In addition to these limitations, Oliver (2010) raised the issue of possible non-response bias, since individuals were not required to complete the PC-PTSD.

*Center for Epidemiologic Studies Depression Scale (CES-D)*. Burrell, Durand and Fortado (2003) utilized the CES-D (Radloff, 1977) to measure psychological health among U.S. Army spouses. In addition to this, the authors measured well-being with an overall self-report rating of participants' physical health and assessment of alcohol abuse through the CAGE Questionnaire (Ewing, 2004; Mayfield, McLeod, & Hall, 1974). The purpose of this study was to assess the effects of military community integration on well-being and retention. Samples from the United States Army Reserve (USAR) ( $N=417$ ) and the Army National Guard (ARNG) ( $N=523$ ) were used in this study. Data analyses included descriptive and inferential statistics. In particular percentages, Analysis of Variance (ANOVA), chi-square, correlation, and logistic

regression analyses were conducted. In this sample of military spouses of active duty service members a mean score of 12 fell below the cutoff point for clinical depression (16) indicating that these spouses were doing “well psychologically” (Burrell et al., p. 17). Results did not indicate a high degree of military community integration among participants. No significant relationship was found between military community integration and any measures of well-being.

Strengths of this study included the medium to large sample sizes ( $N=417$ ;  $N=523$ ), the multiple measurement scales employed to assess well-being (CAGE [Ewing, 2004; Mayfield, McLeod, & Hall, 1974] & CES-D [Radloff, 1977]), and the rigorous levels of data analysis techniques (ANOVA & logistic regression). Generalizability of findings from this study may be limited to active duty Army spouses.

***Community Support.*** *The West Haven Homecoming Stress Scale (WHHSS).* Johnson et al. (1997) studied the impact of homecoming reception on the development of PTSD in 247 male veterans receiving inpatient treatment for PTSD. The West Haven Homecoming Stress Scale (WHHSS) was used to measure “homecoming stress” (p. 263) and risk factors associated with PTSD. The researchers noted that items on this scale were developed based on face validity, and were amended if needed based on feedback from piloted administration of this scale. Test-retest reliability scores were computed for background factors and the homecoming stress subscale scores in this measurement instrument.

Johnson et al. (1997) used the following comparison measures in their study: Mississippi Scale for Combat-Related PTSD (MISS), Combat Exposure Scale (CES), Holmes and Rahe Stressful Life Events Scale, Helzer Index, War Stress Inventory, and the Clinically Administered PTSD Scale (CAPS) (Blake et al., 1995; Fontana, Rosenheck, Spencer, VA

Medical Center & Northeast Program Evaluation Center, 1993; Helzer, Robbins, & McEvoy, 1987; Holmes & Rahe, 1967; Keane, Cadell & Taylor, 1988; Keane et al., 1989). Data analyses methods included an assessment of construct validity through inter-correlations of scores on measures, with Bonferroni corrections for multiple comparisons. T-tests were conducted on individual scale items and one-way, repeated measures ANOVA was used to assess treatment outcomes. Step-wise multiple regression techniques were used to examine the impact of the independent variables on PTSD symptom measures.

Strengths of the Johnson et al. (1997) study include the use of multiple measures to determine reliability of the scores on the WHHS, in addition to using Bonferroni to correct for multiple comparison limitations. Limitations of this study included the in-patient sample population having a high level of PTSD symptoms; thus the in-patient participants were more likely to be sensitive to homecoming stressors than participants in the community. The authors also noted that the study data was retrospective, and the WHHSS was self-administered. This study was also limited to male veterans, and did not discuss differences among veterans of various ethnicities.

*Brief Sense of Community Scale –German version (BSCS-G)*. As mentioned earlier, Wombacher et al. (2010) field-tested a German version of the Brief Sense of Community Scale (BSCS-G) with a sample of 270 sailors. The purpose of this study was to assess measurement properties of the BSCS (Peterson et al., 2008) when translated into German and field tested in an international, military culture. Data analysis techniques consisted of CFA in efforts to assess if the factor loadings support the following constructs (in the German version): (1) *needs fulfillment*; (2) *group membership*; (3) *influence*; and, (4) *emotional connection*. Specifically the



authors developed model specification, assessed CFA assumptions, model estimation and assessed model parameters. The authors found that this model had good overall fit had a better fit than the two alternative model specifications. Large parameter estimates in this study suggest that findings are statistically significant. This study indicated that the BSCS has the ability to be used as a data collection instrument in cross-cultural situations. Generalizability of findings however, may be limited to German sailors.

***Employment.*** Resnick and Rosenheck (2008) studied the effects of PTSD on employment in veterans participating in a VHA employment rehabilitation program. The researchers utilized secondary data collected from an electronic data collection system by the VA Northeast Program Evaluation Center (NEPEC) on participants in the Compensated Work Therapy (CWT) program for the Fiscal Year (FY) 2006 and the first half of FY 2007. Data analysis methods consisted of initial bivariate analyses and then logistic regression which examined the multivariate relationship of the following variables: (1) admission characteristics; (2) PTSD diagnosis; (3) service era; (4) theater of operations; and, (5) discharge employment status. Individuals diagnosed with PTSD were compared with those who were not diagnosed with PTSD 90 days before they were discharged from the CWT program.

Strengths of the study method included a quasi-experimental design with the use of PTSD and non-PTSD comparison groups, the use of a large sample size ( $N = 5,862$ ) and the analysis of variables of interest (competitive employment at discharge; admission characteristics; veterans with PTSD) on multiple levels. The exploration of interactions between PTSD, service era and competitive employment was also a methodological strength in this study (Resnick & Rosenheck, 2008). Generalizability of the findings in this study is limited to veterans

participating in the VA North East CWT due to sampling strategy and research design. The use of PTSD diagnosis based on CWT staff is another limitation to the validity of PTSD in identified participants. In addition to this, the authors noted that employment status was based on self-report or the clinician's report of employment status.

***Interpersonal relationships.*** Riggs et al. (1998) assessed the association of PTSD with quality of the intimate relationships among male Vietnam veterans. A sample size of 50 veterans and their heterosexual female partners were recruited through a VA medical center within a city located in the northeast part of the United States. Data collection instruments used in this study included the following: (1) Dyadic Adjustment Scale (DAS) (internal consistency alpha coefficients above .90); (2) Marital Status Inventory (MSI); (3) Relationship Problem Scale (RPS) (internal consistency alpha =.86); (4) Fear of Intimacy Scale (FIS) (“internally consistent, reliable over time and has demonstrated concurrent validity,” p. 91); and, (5) PTSD Checklist, Military Version, (PCL-M) (veterans were diagnosed based on their responses). Data analysis included the use of chi-square to compare dyad proportion in veterans who were positive for PTSD versus those who were not. In addition to this, ANOVA was used in order to compare PTSD and gender on the measures mentioned above. Lastly, regression analysis and correlations was used to assess the relationship between the above measures and levels of PTSD per the following symptom clusters: (1) re-experiencing; (2) avoidance; and, (3) arousal.

Strengths of this study included a quasi-experimental design of PTSD and non-PTSD comparison groups, the use of multiple measures and some of these measures had high levels of reliability in scores and validity in content (Riggs et al., 1998). Although data analysis methods appear to be quite rigorous, the generalizability of findings in this study is limited to male

Vietnam veterans and their heterosexual partners who used VA medical services in the northeast city in the U.S. The use of the PCL-M as a diagnosis tool for PTSD is also a limitation to this study due to the potential self-report biases that may occur as a result of the prevalence of mental illness stigma found among military populations (CRS, 2011).

Calhoun et al. (2002) examined the relationship of caregiver burden and psychological distress among partners of 71 male Vietnam veterans who had chronic PTSD. According to the authors, the Mississippi Scale for Combat-related PTSD was used in this study based on reliability of scores and validity of constructs reported in the Keane et al. (1989, 1990) studies. The Conflict Tactical Scale (CTS) (Straus, 1979) was used because the authors felt it had “good construct validity and adequate reliability” of scores (.62 to .88) (Calhoun et al., p. 208). The Cook-Medley Hostility Scale has been assessed for item content (Barefoot, Dodge, Peterson, Dahlstrom & Williams, 1989) and the Burden Interview (BI) scale was found to have high internal consistency scores ( $\alpha = .91$ ) and test-retest scores  $\alpha = .71$  (Pratt, Schmall & Wright, 1986; Zarit, Reever & Bach-Peterson, 1980). The Global Severity Index (GSI) of the Symptom Checklist (SCL-90) (Derogatis, & Melisaratos, 1983; Derogatis & Savitz, 2000) was used because authors suggested that it’s “reliability [of scores] and [the] validity of SCL-90 has been well demonstrated” (Calhoun et al., 2002, p. 208).

A strength to the Calhoun et al. (2002) study was the number of measures listed above that have been assessed for reliability of scores and validity. However, in terms of reliability of measurement scores, King and King (1991) suggested that the homogeneity of help-seeking Vietnam veteran participants pose a threat to findings in studying this population. Another strength of this study is the use of PTSD and non-PTSD comparison groups. In terms of

sampling, authors stated that the 71 veterans and their partners were a subset of a sample used in a previous study (Beckham et al., 2000). Neither study provided details on sampling strategy.

Conclusions from the Calhoun et al. (2002) study suggest that “no evidence that demographic factors or social support mediated the relationship between PTSD symptom severity and caregiver burden” (p. 210). Authors may have come to these conclusions if demographic and social support factors were limited to age, education, and marriage (as suggested by Table 1 of this article). In contrast, Sayer et al. (2011, 2010) provide a much broader spectrum of demographic factors in their veteran reintegration studies, including ethnicity and unemployment, which were both connected to higher levels of reintegration difficulties, and reintegration difficulties were found to be connected to PTSD levels.

Adler-Baeder et al. (2006) studied the prevalence of marital transitions in military families. Data analyses included ANOVA, t-test, Chi square, correlation, multiple regression and repeated measures. A strength of using these datasets lies in the large sample sizes of 18,398, 19,571, and 18,403. However, generalizability of these findings is limited to service members who participated in DoD surveys conducted during the timeframe of 1992-1999 (Pre-9/11 or Pre OEF/OIF/OND wars). The authors suggested that future research should analyze data by breaking down marriage and family into further subcategories in efforts to understand how military service affects different types of traditional and non-traditional families as they reintegrate into civilian communities.

***Diversity. Women.*** Gamache et al. (2003) studied the prevalence of women veterans who are homeless among the general population of women who are homeless. Data analyses consisted of computing odds ratios (ORs) as well as exposure odds ratios between age cohorts.

While this was an extremely large sample for homeless populations ( $N=3,490$ ), one of the limitations is using multiple datasets for secondary data analysis to conduct this study. In particular, one dataset was limited to individuals who were homeless and had mental illness. Thus, generalizability of findings from this study may only be limited to individuals who are homeless and have mental illness.

In terms of health care utilization, Carney et al. (2003) analyzed data from population-based surveys to this issue among female veterans who had been deployed during the Gulf War. Data analyses for this study included frequency distributions, Chi-square, and simple linear regression with continuous variables. The authors noted that these findings need to be compared with general population studies, which also report a higher rate of medical service use by women than men. In addition to this, the authors noted that they were unable to identify whether differences in service utilization and compensation was because of environmental stressors that affected women in particular or differences between how men and women experienced stressors.

Methodological strengths of this study included the use of cross-sectional and cohort designs. In addition to this, stratified random sampling techniques were used in combination with oversampling of women to match their proportion. A comparison group of men were used for this study. The computer-assisted telephone interview system was found to have test-retest reliability of 89.6% - 97.0%. Limitations of this study include the use of secondary data which was not designed to detect differences in exposure between men and women. Another limitation of this study was the small percentage (5%) of women within the sample. Recall bias was also a limitation because data was collected five years after the war, and participants were not asked to give reasons for seeking medical treatment. The authors suggested future studies on the difference between

male and female military personnel with real-time measurements of combat exposure and its links to health consequences (Carney et al., 2003).

With regards to mental health issues, Fontana et al. (2010) conducted a secondary data analysis of female veterans from Iraq, Afghanistan, and the Persian Gulf and Vietnam wars who sought treatment for PTSD. Male veteran data was used as a comparison group. Analysis of Covariance (ANCOVA) was used to analyze data while controlling for program site and age. According to the authors, limitations of this study included a sample of convenience, the selection of the OEF/OIF veterans being limited mainly to the first set of troops who fought in the Iraq war, and that the sample is not representative of veterans who are seen by the VA for non-PTSD related issues.

In another study, Fontana and Rosenheck (2006) studied the comfort level of 224 female veterans with PTSD who sought care in male-dominated environments. Data analysis included descriptive statistics on demographic and other characteristics of the participants. Military Stressors were measured by the Women's War Stress Inventory (WWSI), which had two subscales measuring duty related stressors (coefficient  $\alpha = .80$ ), and sexual stressors (coefficient  $\alpha = .81$ ). One of the strengths of this study is the relatively high reliability scores on the two subscales; list the scores. Another strength is the independent evaluators who were used to collect data in this study, however, there still could be a response bias since surveys were administered at the VA facility. Another limitation was the lack of differentiation between ethnic groups. This information may have shed more light on the reasons behind the discomfort levels of those categorized as "minority ethnicity" (p. 65).

Greenberg et al. (2004) studied the effects of COC and IOC in 224 female veterans receiving outpatient treatment for PTSD. The study found many negative outcomes associated with COC after the first four weeks of treatment, but after eight weeks of treatment, it was found that those with higher COC showed a decrease in violent behavior, PTSD symptoms, and an increase in functioning levels. The authors reported that demographic data was collected during the baseline phase. The authors also reported that data was also collected about treatment process variables, including the veteran's commitment to the treatment process. At baseline, and four months later, four clinical measures were used to assess PTSD, alcohol and drug abuse, and "violent behavior" (p. 203). Three areas of COC were measured, including the use of the COC index and the Modified Continuity Index (MCI). According to Greenberg et al. (2004) the first step in analyzing data in this study consisted of ANOVA and Chi-square to identify difference in baseline and post-intervention characteristics. Authors reported the next step of this process was to correlate scores from COC measures used in this study. Last, hierarchical linear modeling (HLM) and generalized estimating equation (GEE) were used to assess the strength of the association between baseline characteristics, measures of treatment process, and COC measures.

Strengths of this study included a pre-test and a multiple post-test design and the use of higher level statistical analysis to assess the different measures used in this study. Limitations of this study include a non-random sample, observation versus experimental design, and administrative data sets that did not measure for services received outside the VA health system. The authors noted that outside service provisions mentioned in interviews were analyzed and no significant relationship between these services and COC/IOC measures were found. Another limitation noted in this study was the low follow-up rates, which may have led to selection biases

(Greenberg et al., 2004). Since this study was focused on women, and the sample size was only women, the findings from this study are not generalizable to men and individuals outside the VA health system.

In an earlier study, Fontana et al. (1997) analyzed data NVVRS to develop a causal model that examined the role of war and sexual trauma in the development of chronic PTSD among women veterans. Multiple risk factors for PTSD were correlated with PTSD among women in this dataset. The Brief War-zone Exposure Scale for Women used in this study was reported to have high factor loadings for variables of interests, and a high internal consistency of scores ( $\alpha = .90$ ). The two scales measuring familial support had scores of ( $\alpha = .72$ ) and ( $\alpha = .52$ ). No information was provided about whether these scales had been used in previous studies. The use of NVVRS data to provide a representative sample and higher levels of generalizability was strength. On the other hand, a limitation to using this data in a causal model is the possibility of retrospective bias that can occur in connecting variables. In addition, the authors caution that sexual trauma was most likely underreported during the Vietnam era. If this is the case, the relationship between sexual trauma and PTSD among female Vietnam veterans may be underestimated by this study.

*Ethnicity/Race.* When examining disparities found among African American/Black veterans, Rosenheck et al. (1997) conducted a nationwide study on the differences in treatment outcomes for a total of 564 homeless and mentally ill male veterans. Measures to assess homelessness included questions about where the participant had slept in the previous 90 days. Psychological issues were measured using the (1) Brief Symptom Inventory (BSI) (Derogatis & Spencer, 1982), and the (2) Addition Severity Index (ASI) (McLellan, Laborsky, Woody &



O'Brian, 1980). Measures of other factors and perceptions among these veterans included a set of questions asked by interviewers. Data analyses consisted of one-way repeated measures ANOVA, factorial repeated measures ANCOVA, and two-way repeated measures ANCOVA.

Compared to other studies reviewed, this study is unique in that it addresses reintegration issues of homelessness and racial disparities among the veteran population (Rosenheck et al., 1997). The authors did not address, racial biases that members of ethnically diverse backgrounds may have encountered. Racial biases in psychiatric diagnosis have been documented in the literature (Pavkov, Lewis & Lyons, 1989). This type of bias may have led to higher levels of substance abuse diagnosis seen in this study. Racial biases in criminal justice system have also been documented in the literature (Petersilia, 1985). This type of bias may have led to the disproportionate felony arrests, and increased hospitalizations found in the sample of African American male veterans.

In efforts to assess race-related stressors among Asian American Vietnam veterans, Loo et al. (2001) conducted three studies over five years. The first study used a purposive sampling strategy to test 94 race-related items derived from the literature on 11 Asian-American Vietnam veteran participants who varied in terms of ethnicity, military branch, combat exposure, and treatment/non-treatment seeking status. In the second study, data was collected over a five-year period from a sample of 300 Asian-American Vietnam through the use of a questionnaire containing the preliminary version of the Race-Related Stressor Scale (RRSS) for the purpose of refining the content and construct validity of this instrument through item deletions. The following data analyses techniques were employed in the second study: item-total correlations, frequency distributions, and factor analyses. In the third study data from a subsample of the

second study ( $n=61$ ) was used to assess the test-retest reliability of scores from the RRSS. Hierarchical Regression Analysis employed in this study. The use of a sample of 300 Asian Americans increases the generalizability of findings from this study in comparison to findings from Loo (1994), where qualitative data analyses techniques were employed in a case study sample size of  $N=1$ . A strength of this study is the rigorous methodologies used to develop and refine a scale in terms of validity and reliability of scores. However, the use of this scale in a more recent veteran reintegration context is limited since the questions on this scale are very specific to the race-related Vietnam War experience of Asian American male veterans. Future research could employ methodologies used in this study to develop a scale which addresses race-related community reintegration stressors among veterans returning from the wars in Iraq and Afghanistan.

Beals et al. (2002) analyzed data from the AIVVP and NVVRS in efforts to assess differences in PTSD prevalence rates among various ethnicities. Data for these two studies were collected through lay interviews in a “population-based” (p. 90) sample ( $N=1,798$ ). Clinical re-interviews were then conducted in a subsample ( $N= 487$ ) of the original sample. Data from these studies were imputed into SAS. Data analyses included descriptive statistics and logistic regression. Multivariate analyses resulted in no significant differences among ethnicities when war-zone stress exposure was controlled for. Results from this study suggest that Native American/American Indian veterans had higher rates of PTSD diagnoses than their Caucasian/White counterparts due to the higher levels of war-zone stress exposure. Strengths of this study include the multivariate data analyses techniques employed to isolate variables of interests and control for covariates. Future research could use similar techniques to explore the

“marginally significant” (p. 94) disparities in PTSD diagnoses found among African American/Black veterans and Latino/Hispanic veterans in this study. Authors noted limitations of secondary data analysis included a five year time-span between the first study and the second study, retrospective measurement of life-time PTSD, and the use of participants from only two Native American/American Indian tribes.

***Sexual orientation.*** McDaniel (1989) conducted secondary data analysis using data from the EBIS to compare pre-service background characteristics related to security and suitability among those who were discharged from the military for their sexual orientation and others who joined the military. This design was quasi-experimental in that it utilized non-equivalent comparison groups. The following are sample sizes and characteristics of comparison groups: (1)  $N= 166$  individuals who identified as homosexuals; (2)  $N= 16, 357$  applicants who were not entering service; (3)  $N= 48, 302$  all other accessions; (4)  $N= 8, 468$  military career changes; and, (5)  $N= 27, 347$  clearance category. The author stated that “statistical methods were used to cluster EBIS data into meaningful clusters” (p. 4). Details to support the basis of these clusters, however, were not presented. Items in six of these categories were then totaled to produce six scale scores. Reliability of scores for these scales was not reported in the article. The other measurement used for data collection was the Armed Forces Qualification Test Percentiles (AFQT) used to measure cognitive ability. According to the author, the DoD determines percentiles for this scale and this scale was not normed. No other information was provided about the validity or reliability of scores on this scale in the article. Lastly, selection criteria for individuals identified as homosexual was limited to discharges for “homosexuality” (p. 3). The

also notes a small sample size ( $N=166$ ) of individuals identified as homosexual in this study limits the generalizability of these findings.

In a more recent study, Moradi (2009) conducted used an exploratory cross-sectional design to collect retrospective data from a sample of 445 LGBTQ military veterans recruited from national LGBTQ organizations, networks and online groups. Job satisfaction was measured using a scale developed by Siebold and Lindsey (1999) and two items from Castro and Alder (2001). According to authors, reliability of scores from these scales ranged from .80 to .90. In addition to this, factors related to the construct of general job satisfaction were found to be independent from non-work related factors. Utility and task cohesion was measured using items from Griffith's (2002) cohesion scales. The author found evidence of validity from correct item loadings in a factor analysis. Reliability of scores from this study ranged from .88 (for social cohesion) to .91 (for task cohesion). Sexual orientation, concealment, and disclosure were assessed by the Workplace Sexual Identity Management Measure (WSIMM) (Anderson, Croteau, Chung, & DiStefano, 2001). Authors found test-retest reliability of scores on this scale had Chronbach's alphas of .77 and .87 for concealment and disclosure scores (respectively). Item scores had Chronbach's alphas of .73 and .91 (respectively).

Moradi (2009) found Chronbach's alpha of .71 for concealment items and .79 items for disclosure items. Levels of perceived sexual orientation-based harassment were measured using the Waldo's Workplace Heterosexual Experience Questionnaire (WWHEQ) (Waldo, 1999). Cronbach's alpha for scores from this scale has been in the .90s in previous studies, and the current study found  $\alpha=.92$  for item scores on the WWHEQ. Data collection tools included a compilation of these measurements in an internet survey supported by the rationale of Gosling,

Vazire, Srivastava and John (2004). Preliminary data analysis included descriptive statistics and intercorrelations among variables of interest. Structural equation modeling was used to assess if there were indirect relations of sexual orientation disclosure, concealment, and harassment with task cohesion and social cohesion, using Amos 5.0 (Arbuckle, 2006).

Methodological strengths of this study included a fairly large ( $N = 445$ ) and representative (of military branches and proportional demographic factors) national sample of LGBTQ veterans. However, the sampling strategy and generalizability of findings were limited to LGBTQ veterans who were members of or visited online support organizations/websites (Moradi, 2009). Another strength of this study was the multiple scales used to measure constructs of interest. Scales used in this study were assessed for reliability of scores and some were assessed for validity of constructs. However, data collected in this survey may have had biases due to the retrospective nature of the questions. Structural equation modeling appeared to be an appropriate method of data analysis employed to test indirect relationships of were indirect relations of sexual orientation disclosure, concealment, and harassment with task cohesion and social cohesion, from the perspective of LGBTQ veterans. On the other hand, authors caution that the direction of causality could not be interpreted due to the cross-sectional design of this study. Among literature reviewed, this was the only study found to have assessed the perspective of LGBTQ veterans. Future studies on veteran community reintegration studies should harness the data collection strategies used in this study to recruit LGBTQ veteran participants.

***International Veteran Community Reintegration. Canadians.*** In another study of Vietnam veterans from Canada, Stretch (1991), 164 Canadian veterans were recruited from the Canadian Vietnam Veterans Coalition. Measurement instruments used in this study included the

Vietnam Era Veteran's Adjustment Survey (VEVAS; Stretch, 1986) and the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1964). T-test and chi-square were used to analyze comparisons between PTSD and non-PTSD groups. In addition to this, significance testing of using Pearson's Correlation analysis was conducted among veterans who had experienced PTSD symptoms and physical health problems. A strength of the methodology is the use of a comparison PTSD and non-PTSD groups. In addition to this, the study utilizes two measurement instruments to assess variables of interests. According to Stretch (1991), the VEVAS instrument used to collect data for this study was considered "a valid and reliable instrument" (p. 188). However, specifications on validity and reliability of scores were not mentioned in this article. In efforts to substantiate findings from this study, future research should assess the reliability of scores from both scales used in this study. The sampling strategy of this study limits generalizability to members of the Canadian Vietnam Veterans Coalition. For a national sample, the study had a relatively small sample size (N=164) and low response rate (35%). In addition to this, findings from racial/ethnic categories were limited to Caucasian/White and "other" (p. 188).

*Tigray People.* Negewo-Oda and White (2011) used snowballing techniques to recruit a sample of 20 Ethiopian women veterans in the Tigray People's Liberation Front (TPLF). The data collection instrument used in this study was a 42-item semi-structured interview assessing gender-issues concerning the lives of these women before, during, and after the civil war. Audiotapes and transcriptions were used to record data. An inductive style of investigation was used to find information in this study (Rubin & Babbie, 2010). Two authors developed categories for item-responses and coded responses based on these categories. Data analysis included frequencies and percentages based on responses in each category. The protocol of this

methodology followed methodology commonly found in qualitative research designs and revealed a rich amount of data concerning the reintegration issues these women veteran faced. Compared other studies reviewed, this study is unique in that it utilizes a sample of Ethiopian women veterans from the TPLF to provide an international perspective in studying reintegration issues. Authors noted this study was limited by the sampling strategy, which led to a high education bias among the women veteran participants.

This 20-year review of veteran reintegration methodologies includes a wide range of sample sizes, designs, measures, and data collection and analysis techniques. In this review, no mixed-methods were found and very few empirical studies have been conducted utilizing participants from the most recent wars (OEF/OIF/OND) (Oliver, 2010; Sayer et al., 2010, 2011). In the articles reviewed, only one study reported the use DIF analysis of measures to assess whether measures were measuring the same construct in different demographic groups (Oliver, 2010). With increasing diversity in the returning veteran population, it will be important to assess how veteran reintegration measures function with different demographic groups of veterans. Future research should utilize the strengths of sampling techniques in previous research (secondary data analysis and purposive) to develop a body of knowledge on this new generation of veterans. Measurements which have been validated within the VA (M2CQ [Sayer et al., 2010]; PC-PTSD [Prins et al., 2004]) could be used in future community reintegration outside the VA.

This review of the literature has attempted to assess studies addressing these concerning issues in the area of veteran community reintegration. Initially, a conceptual, historical and political context was reviewed. Next a quantitative perspective from national, state, and local

indicators were discussed in efforts to provide a basis for the scientific perspective. The critical review of empirical studies in this area has provided an overview of veteran reintegration in the past 20 years. Analyses of the topic, theories and methodologies used in the reviewed studies were discussed and gaps in the literature were explored and suggestions for future research will be discussed (CSW, 2011).

In an interview with military personnel of 1,049th Transportation Company (a National Guard unit based in Delaware), McMichael (2012) documented the reintegration concerns that have been substantiated by evidence found in the review of this literature. “For some, it's the coming home, not the fighting, that is the toughest part of such deployments. It's trying to adjust to life in the peaceful United States, where the intense vigilance a combat zone demands downshifts to watching for cars before crossing the street” (para. 5). The author suggests that the most prevalent physical disabilities are those concerning orthopedic issues. In addition to this, of greatest concern to the military is the mental health related problems of returning troops. “Estimates of the prevalence of PTSD in troops who've returned from the wars in Iraq and Afghanistan range from 14% to 21%; some believe it's even higher” (para. 6). The author notes that the military is just as concerned about its high suicide rates, which has been the highest cause of death among active military service members (Benai, 2011; Williams, 2012).

According to Delaware National Guard chaplain, ‘whether somebody's had a hot deployment with a lot of combat-type action or they've had things pretty slow, a year away from families just creates inherent issues,’ ... ‘you always have a few (troops), in a unit the size of the 1,049th, that aren't sure if their spouse is gonna be there when they're back.’ The chaplain goes



on to note that this issue is concerning and evidenced by high military suicide rates (McMichael, 2012, para. 36-38).

Military officials also suggest that returning troops face reintegration issues related to finance and jobs. Initial studies and literature reviewed in this literature substantiate this concern (IAVA, 2012; Sayer et al., 2010, 2011; USBLS, 2012). Finally, Jones (2011) notes the rising number of returning veterans who have been completely disassociated with their community through homelessness.

Findings from the review of studies in veteran community reintegration suggest that increasing veteran community engagement or a veteran's SOC has been the theoretical underpinnings of numerous reintegration support programs provided by the Veterans Administration (VA) and other veteran support agencies (Amdur et al., 2011; McMillan & Chavis, 1986; USDVA, 2011j). The community capacity model and the CFT model have harnessed this theoretical perspective and used it to develop a framework for practice with military service members (Bowen et al., 2000; Hollingsworth, 2011). These authors have called for future research to test the influence of community engagement on veteran reintegration. As suggested by Sayer et al. (2011), more research needs to be done concerning the community reintegration issues faced by veterans returning from the most recent wars in Iraq and Afghanistan (OEF/OIF/OND).

***Rationale for research.*** Community reintegration difficulties among Iraq and Afghanistan veterans have recently started to be measured (Blais et al., 2009). Sayer et al. (2011) based their measurement tool on previous community reintegration research among individuals with PTSD and brain injury (Laffaye et al., 2008; McColl et al., 1998). The authors developed

the following domains to capture the challenges veterans face as they return to their communities: (1) *interpersonal relationships with family, friends and peers*; (2) *productivity at work, school or home*; (3) *community participation*; (4) *self-care*; (5) *leisure*; and, (6) *perceived meaning in life*. In their study of Post 9-11 Iraq and Afghanistan veterans who receive VA services, Sayer et al. (2011) identified mental illness and unemployment status as two risk factors for VCR difficulties.

Based upon the documented problems veterans are facing as they return to their communities, many support programs provided by the Veterans Administration (VA) and other veteran support agencies have an outcome goal of increasing community engagement among the veterans and their communities (Amdur et al., 2011; USDVA, 2012a). While researchers have harnessed the SOC perspective and used it to develop a framework for practice models with the military population, conclusions from these studies suggest the need for future research to test the influence of community engagement on veteran reintegration (Bowen, et al., 2000; Hollingsworth, 2011). Therefore, the current study will test if SOC mediates the relationship between VCR risk factors (depression, suicidal ideation, PTSD and, unemployment) and VCR difficulties.

### **Research Questions**

Research findings from Iraq and Afghanistan veterans indicate a broad range of reintegration problems among student veterans, veterans receiving services from the VA as well as veterans who are members of veteran associations (IAVA, 2012; Rudd, et al., 2011, Sayer et al., 2011). Grounded in risk and resilience theory to social organization theory, Bowen et al. (2000) developed a framework to address issues surrounding a (former/current) military service

member's SOC. More recently, Hollingsworth (2011) called for future research to provide evidence supporting the use of SOC as the basis for military social work interventions. The following research questions were developed in efforts to address this gap in the literature:

1. Does SOC mediate the relationship between PTSD symptoms and VCR difficulties (controlling for depression, suicidal ideation and unemployment)?
2. Does SOC mediate the relationship between depression symptoms and VCR difficulties (controlling for PTSD symptoms, suicidal ideation and unemployment)?
3. Does SOC mediate the relationship between suicidal ideation and VCR difficulties controlling for (depression symptoms, PTSD symptoms, and unemployment)?
4. Does SOC mediate the relationship between unemployment and VCR difficulties (controlling for depression, suicidal ideation, and unemployment)?

These research questions have been used to construct the following hypothesis (See Figure 3):

Sense of Community (SOC) mediates the relationship between risk factors (depression, suicidal ideation, PTSD, & employment status) and Veteran Community Reintegration (VCR) difficulties



Figure 3. Hypothesis: SOC mediates the relationship between VCR risk factors and VCR difficulties

## Chapter 3: Method

### Research Design

This research utilized data collected through a non-experimental, cross-sectional survey study (Thomas & Bowie, 2013). This design allows for exploratory and descriptive research, and permits the classification of respondent attitudes, beliefs, and behavior on specific dimensions of interest (Rubin & Babbie, 2010).

### Sampling Strategy

**Sampling procedures.** A purposive sampling method was used in recruiting participants for the original study. This sampling strategy deliberately targets individuals with specific characteristics and provides the most reasonable and accessible manner for obtaining appropriate participants (i.e., job-seeking military veterans). The sample in the dataset used for the proposal consists of job-seeking military veterans in a mid-sized city in the Southeast region of the United States ( $N=131$ ).

**Participants.** The unit of analysis in this study is individuals. The targeted population for the study is job-seeking military veterans in a mid-sized city in the Southeast region of the United States.

**Inclusion criterion.** Veteran participants at a business and education expo were recruited for the purpose of the original study. Surveys which did not provide evidence of prior military service (per self-report) were excluded from the original study. The proposed study will utilize the same inclusion criterion as the original study.

**Methods for obtaining “Informed Consent”.** In the original study, the Veteran Community Reintegration Survey (VCRS; Thomas & Bowie, 2012) coversheet provided form consisting of all the Basic Elements of Informed Consent (U.S. Department of Health & Human Services, 2013). This form states that the individual consents to participation in the research project upon returning the survey.

In keeping with National Association of Social Workers (NASW, 2008) ethics and Institutional Review Board (IRB) Administration (2012) standards, the following efforts were taken to avoid possible coercion during the collection of the original data (which will be used for this secondary data analysis research proposal):

- Research team members verbally informed participants of informed consent procedures.
- Participants dropped their surveys in a box without any undue pressure.
- The basic elements of informed consent will be included in the coversheet/informed consent sheet.

## **Measurement**

**Measurement of key study variables.** The instrument used to collect data in the original study was the Veteran Community Reintegration Survey (VCRS) (Thomas & Bowie, 2012). It was a combination of demographic items, and scales that measure the following variables: (1) overall veteran community reintegration difficulties; (2) PTSD symptoms; (3) depression symptoms; (4). suicidal ideation; and, (5). SOC. It is a combination of sociodemographic items, and consists of the following *six* measurement scales (*Two* scales were reduced to 1 item [per

IRB]. These items appeared to be the least threatening (culturally appropriate) most appropriate initial clinical assessment questions) (see Table 2):

1. *Military to Civilian Questionnaire* (M2C-Q) (Sayer et al., 2011)
2. *Primary Care PTSD Screen* (PC-PTSD) (Prins, Ouimette, & Kimerling, 2003)
3. *Center for Epidemiological Studies Short Depression Scale* (CES-D 10) (National Institute of Mental Health [NIMH], 2012)
4. *Suicide Behavior Questionnaire* (SBQ-R; Osman et al. 1999) (modified from four items to a single item)
5. *Ultra-Short-Form Suicidal Ideation Thinking Measure* (USSTM; Nugent, 2005) (modified to 1 item from four original items to a single item). -This is the first known time this measurement instrument has been used with the military/veteran population.
6. *Brief Sense of Community Scale* (BSCS; Peterson et al., 2008) -This is the first known time this measurement instrument has been used with the U.S. military/veteran population.

**Exogenous (independent) variables.** The following empirically-based risk factors for veteran community reintegration difficulties will be tested as exogenous variables in the SOC-VCR model: (1) PTSD symptoms; (2) depression scores; (3) suicidal ideation; and, (4) employment status (Resnick & Rosenheck; Rudd, et al., 2011; Sayer et al., 2011). These variables will be measured by the following scales:

- Primary Care PTSD Screen (PC-PTSD) (Prins, et al., 2003)

- Center for Epidemiological Studies Short Depression Scale (CES-D 10) (National Institute of Mental Health [NIMH], 2012; Radloff, 1977)
- Suicide Behavior Questionnaire (SBQ-R) (Osman et al., 1999)
- Ultra-Short-Form Suicidal Ideation Thinking Measure (USSTM) (Nugent, 2005)

***PTSD symptoms.*** Veteran PTSD symptoms were measured by the Primary Care PTSD Screen (PC-PTSD) (Prins, et al., 2003). This scale has been used in prior military studies. It is also widely used to screen veterans for PTSD at the VA (Sayer et al., 2011). There are a total of 4 items on this scale. Respondents are asked to answer “yes” or “no” about symptoms they have experienced in the past month related to an “experience that was so frightening, horrible, or upsetting” (para. 1). Chronbach’s alpha for this scale was .85 (see Table 2). Oliver (2010) conducted a CFA on this scale which indicated good convergent and divergent validity. The author also conducted a Differential Item Functioning analysis on this scale among men and women veterans. Results indicated no statistically significant difference in item functioning between men and women respondents (Oliver, 2010).

***Depression symptoms.*** Veteran depression symptoms were measured by the Center for Epidemiological Studies Short Depression Scale (CES-D 10; NIMH, 2012). The CES-D is one of the most widely used depression screening tests used and validated among various populations (Radloff, 1977). The original scale consists of 20-items which assess participants’ depressive symptoms over the past week (through self-reporting methods). Zhang et al. (2012) contended that this scale is “lengthy and onerous” (p. 1) when used in surveys. In their study, the authors developed and tested the measurement qualities of their shortened version of this depression



scale (CESD-10). Results from this study suggest that the CESD-10 is comparable (to the original version) in its ability to measure symptoms of depression (Spearman correlation coefficient = 0.97; Cronbach's  $\alpha$  = 0.88; sensitivity = 91%; specificity = 92%; positive predictive value = 92%). For these reasons, the CESD-10 was used to identify depressive systems among veteran participants in this study. Since this tool is commonly used in primary care agencies, scholars are urging physicians to use this short version as a screening tool with returning Iraq & Afghanistan veterans (Björgvinsson., Kertz, Bigda-Peyton, McCoy, & Aderka, 2013; Hinojosa, Hinojosa, Nelson, & Nelson, 2010). In this study, Chronbach's alpha for this scale was .89 (see Table 2). Data analyses results also indicated this version of the scale to have good convergent and divergent validity. This measurement asks respondents to indicate the frequency of behaviors or feelings over the duration of their most recent week. The ranges of choices are as follows:

- A. Rarely or none of the time (less than 1 day)
- B. Some or a little of the time (1-2 days)
- C. Occasionally or a mediate amount of time (3-4 days)
- D. All of the time (5-7 days)

***Suicidal ideation.*** From literature reviewed over the last two decades, only a dearth of research was found on suicidal issues among veterans (Rudd, et al., 2011). In response to the Army's release of high suicide rates, IAVA (Stevens, 2013) has called for the need to address this issue among veterans returning from the wars in Iraq and Afghanistan. In efforts to respond to this need, two measurement scales were used to assess suicidal ideation among veteran

respondents in this dataset. Due to IRB restrictions, only one item from each scale was allowed to be used on the VCRS (Thomas & Bowie, 2012).

The Suicide Behavior Questionnaire (SBQ-R) (Osman et al., 1999) has been used in a previous military study among veterans from the Student Veterans of America (SVA) organization (Rudd, et al., 2011). Chronbach's alpha on this scale was .84. This scale originally consisted of 4 items. Per IRB, only one item from this scale was allowed to be included in the VCRS (Thomas & Bowie, 2012). The choice of "How often have you thought about killing yourself in the past year?" was based on similar items seen in empirically-based brief suicidal screening measures (Horowitz et al., 2012; Nugent, 2005) Respondents were able to answer from the following range of selections:

- A. Never
- B. Rarely (1 time)
- C. Sometimes (2 times)
- D. Often (3-4 times)
- E. Very Often (5 or more times)

The Ultra-Short-Form Suicidal Ideation Thinking Measure (USSTM) (Nugent, 2005) has been used and developed in a social service setting. Respondents in the initial sample ranged from ages 11-76. This 4 item scale was found to be "reasonably good" at measuring an individual's suicidal ideation over time (p. 11). Chronbach's on this scale was .94. Multiple Group Factor Analysis resulted in strong convergent and divergent validity. Per IRB, only one item from this scale was allowed to be included in the VCRS (Thomas & Bowie, 2012). The choice of "I think about killing myself" was based on similar items seen in brief suicidal

screening measures (Horowitz et al., 2012; Osman et al., 1999). Respondents were able to answer from the following range of selections:

- A. None of the time
- B. Very rarely
- C. A little of the time
- D. Some of the time
- E. A good part of the time
- F. Most of the time
- G. All of the time

***Employment status.*** Due to high unemployment rate in the veteran population (USBLS, 2012) the Demographic variable originally selected to be used in the model was employment status, measured by the following item: “Please select your current employment status”.

Respondents were provided with the following range of choices:

- A. Full-time employed
- B. Part-time employed
- C. Not employed

***Endogenous (dependent) variable.*** The key endogenous variable in the SOC-VCR model is Veteran Community Reintegration (VCR) difficulties. It was measured in the original study (Thomas & Bowie, 2013) by the Military to Civilian Questionnaire (M2CQ). The M2CQ was developed and tested among veterans retrieved from the VA database (Sayer et al., 2010, 2011). In their study, Chronbach’s alpha for this scale was .95 (see Table 2). The M2CQ

measures the following domains of VCR: (1) *inter-personal relationships with family, friends, and peers*; (2) *productivity*; (3) *community participation*; (4) *self-care*; (5) *leisure*; and, (6) *perceived meaning in life*.

**Mediation variable.** The moderator variable in the SOC-VCR model is Sense of Community (SOC). It was measured by the Brief Sense of Community Scale (BSCS) that Peterson et al. (2008) developed and tested among residents participating in a community health program. The authors developed this scale for the specific purpose of meeting “the need for a brief measure of SOC that can be easily applied in community-based research and practice” (p. 64). Based on literature reviewed over the past two decades, this scale has not been used in a military context. Eight items on this scale were developed to assess the following dimensions of SOC: (1) *needs fulfillment*; (2) *group membership*; (3) *influence*; and, (4) *emotional connection* (McMillan & Chavis, 1986). Chronbach’s alpha for this scale was .92 (see Table 2). Confirmatory Factor Analysis (CFA) found good convergent and divergent validity for the construct measured by this scale (Perrucci, Coscarelli, Balboni, & Cacciamani, 2012). Respondents were asked to rate their feelings about each question on a 4-point Likert scale. The following numbers represent varying degrees of connection to each dimension:

- A. Strongly Agree
- B. Agree
- C. Neutral
- D. Disagree
- E. Strongly Disagree

Table 2. Measurement Detail and Reliability in Previous Research

<b>Instrument</b>	<b>No. Items</b>	<b>Alpha</b>
Military to Civilian Questionnaire (Sayer et al., 2011)	16	.95
Primary Care PTSD Screen (Oliver, 2010; Prins et al., 2003)	4	.85
CESD-10 (Hinojosa et al.; NIMH, 2012)	10	.89
Suicide Behavior Questionnaire (Osman et al., 1999)*	4*	.84
Ultra-Short-Form Suicidal Ideation Thinking Measure (Nugent, 2005)*	4*	.94
Brief Sense of Community Scale (Peterson et al., 2008)	8	.92
	Mean Alpha Coefficient =	.89

\*Modified to one item in this study

### Data Analysis

In the original study, preliminary data analyses were conducted using Statistical Package for the Social Sciences (SPSS) 20 (IBM Corp., 2011). This analysis included the following descriptive statistics: frequencies, the mean, median, range, standard deviations and percentages. The goal of this analysis was to provide a preliminary description veteran participants strengths and needs in the following areas: (1) demographic characteristics; (2) perceptions of the effectiveness of TVBA's 3rd Annual Business and Education Expo; (3) community reintegration; and, (4) mental health (Thomas & Bowie, 2013).

Structural equation modeling (SEM) analysis using the Analysis of Moment Structure (AMOS; Arbuckle, 2006) is used to test the hypothesized direct and mediating relationships among the variables in the present study (Bryne, 2009). According to Lei and Wu (2007), an advantage of SEM (over multiple regression) is its ability to study constructs that are measured by more than one scale. A disadvantage of path analysis compared to SEM, is that path analysis assumes observed variables have no error. Authors contend that this assumption is unlikely to hold in social sciences. Bollen (1989) further explains that path coefficient estimates can be

based as a result of errors in observed variables. Alternatively, SEM can estimate the reliability of measured variables and fix error variances by incorporating these estimates into the model. In addition to this, the measurement model of SEM can also separate common-method variances (CMV) of observed variables error variances in efforts to correct the coefficients in the model. Therefore, SEM more suited to test the hypothesized model in this study (that SOC mediates the relationship between VCR risk factors and VCR difficulties) than the other previously discussed methods (multiple regression and path analysis).

While SEM is considered a “large-sample technique” (p. 14), Kline (2005) notes that a “medium” (100-200) sample size is an acceptable size when models are less complex. Therefore, SEM can be acceptably employed in this study where  $N=131$ . The author suggests a goal of 20:1-10:1 in terms of number of cases to number of free parameters. One of the more commonly used approaches to power estimation in SEM is the root mean square error of approximation (RMSEA) (Kline, 2005; MacCallum, Browne, & Sugawara, 1996). These authors suggest a RMSEA of less than .05 indicates a good fit, .08 indicates a reasonable fit and those ranging from .08-.10 are mediocre fits and anything less than .1 is a poor fit (Bryne, 2010; MacCullum et al., 1996).

Regarding SEM procedures, this technique involves the analysis of two models: a *measurement model* and a *path model* (Kline, 2005; Lei & Wu, 2007). In SEM, the measurement model is assessed through Confirmatory Factor Analysis (CFA). CFA factor structures (which correspond to latent constructs in SEM) are created based on previous research. The present study consists of the following factor structures that will be evaluated through CFA: (1) depression; (2) PTSD; (3) suicidal ideation; (4) employment status; (5) SOC; and, (6) VCR

difficulties. After specifying the measurement model, structural relations of the above latent factors will be modeled as a path model. In the present study, the SEM path model will consist of the following *exogenous* (independent) variables: depression, PTSD, suicidal ideation, and employment status (see Figure 4).

The *mediator* variable in this study will be SOC. Baron and Kenney (1986) define *mediator* in social or psychological research as “accounts for the relation between the predictor and the criterion. Mediators explain how external physical events take on internal psychological significance. Whereas moderator variables specify when certain effects will hold, mediators speak to how or why such effects occur.” (p. 1176). In a correlation analysis, it is “a third variable that affects the zero-order correlation between two other variables. In analysis of variance (ANOVA), the moderator effect is depicted “as an interaction between a focal independent variable and a factor that specifies the appropriate conditions for its operation” (p. 1174). The *endogenous* (dependent) variable in this model will be VCR difficulties. This combination of CFA modeling and structural path modeling on latent constructs is an overall SEM framework for analyzing covariance structures.

A common method of estimating a model is Maximum likelihood (ML). ML describes the statistical principal that parameter estimates “maximize the likelihood (the continuous generalization) that the data (the observed covariances) were drawn from this population” (Kline, 2005, p. 112). It assumes a multivariate normal distribution of endogenous variables. When testing a SEM model, Boomsma (2000) and McDonald and Ho (2002) recommend the following minimal set of fit indices be reported: (1) Model chi-square; (2) Steiger-Lind root mean square error of approximation (RMSEA) (Steiger, 1990) and its 90% confidence interval; (3) Bentler

comparative fit index (CFI) (Bentler, 1990); and (4) Standardized root mean square residual (SRMR). This study will utilize ML and the previously listed fit indices to assess the following hypothesis that Sense of Community (SOC) mediates the relationship between risk factors (depression, suicidal ideation, PTSD, & employment status) and Veteran Community Reintegration (VCR) difficulties (see Figure 4).



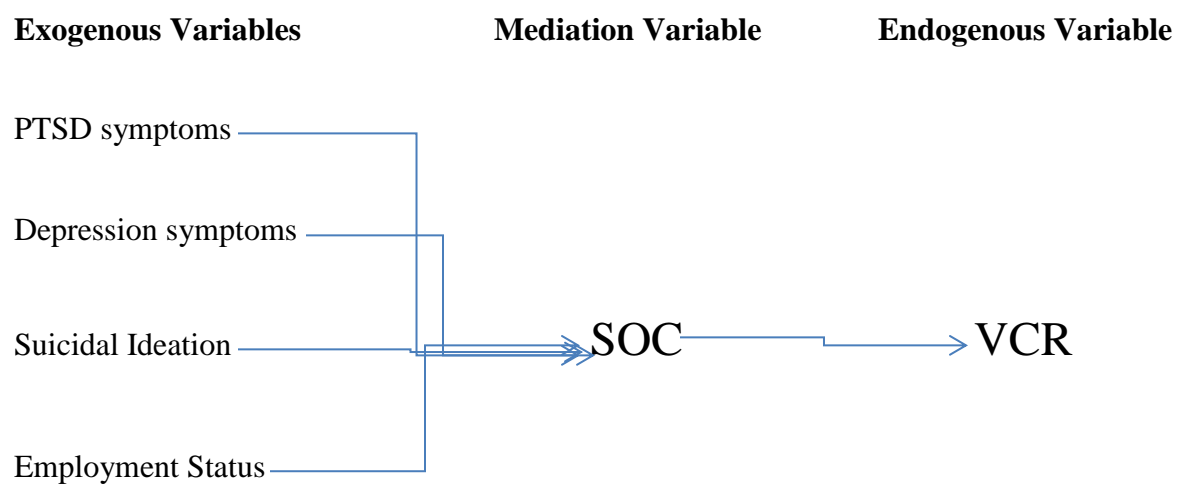
**VCR Risk Factors -SOC-VCR Difficulties Model**

Figure 4. VCR Risk Factors-SOC-VCR Difficulties Model

## Chapter 4: Results

### Background

**Veteran characteristics. Age, gender, ethnicity/race.** Veterans who participated in the study represented ages which ranged from 21 to 75 years old, with a mean age of 44.35. Most of these veterans were born in the United States (97.7%) and spoke English as their first language (96.2%). The majority of participants identified themselves as male (93.1%) and 6.1% identified themselves as female. In terms of ethnic identity/race, a majority of participants (83.2%) considered themselves as White/not of Hispanic origin. The second largest ethnic/racial group of participants identified themselves as African American/Black (12.2%), those who considered themselves Hispanic or Latino (2.3%). A small portion of veteran participants considered themselves Biracial (1.5 %) and American Indian/Alaskan Native (0.8%) (Thomas & Bowie, 2013; see Figures 5-7) (Note: percentages do not add up to 100% due to missing data).

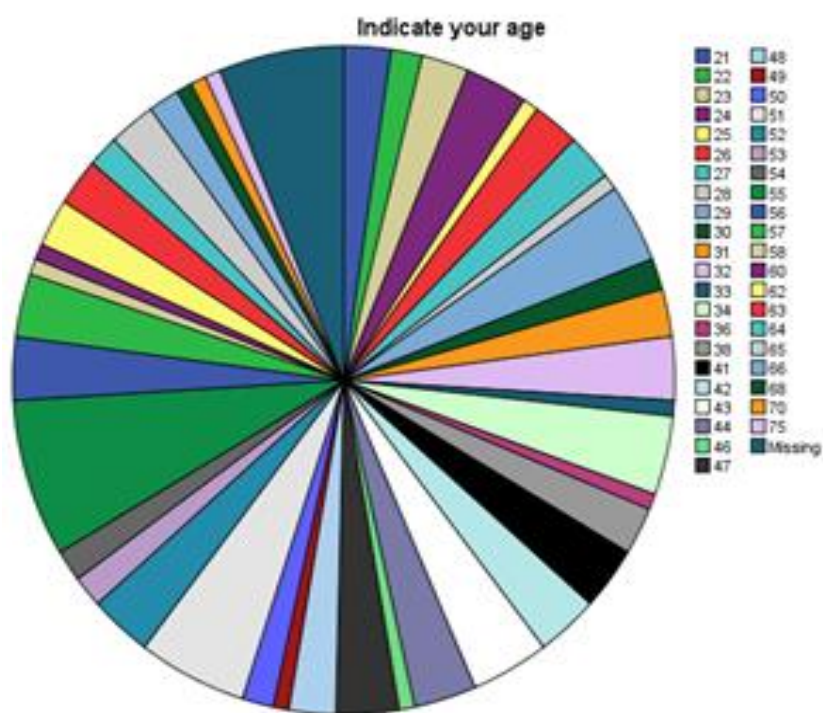


Figure 5. Veteran Participant Description: Age

Source: Thomas & Bowie (2013)

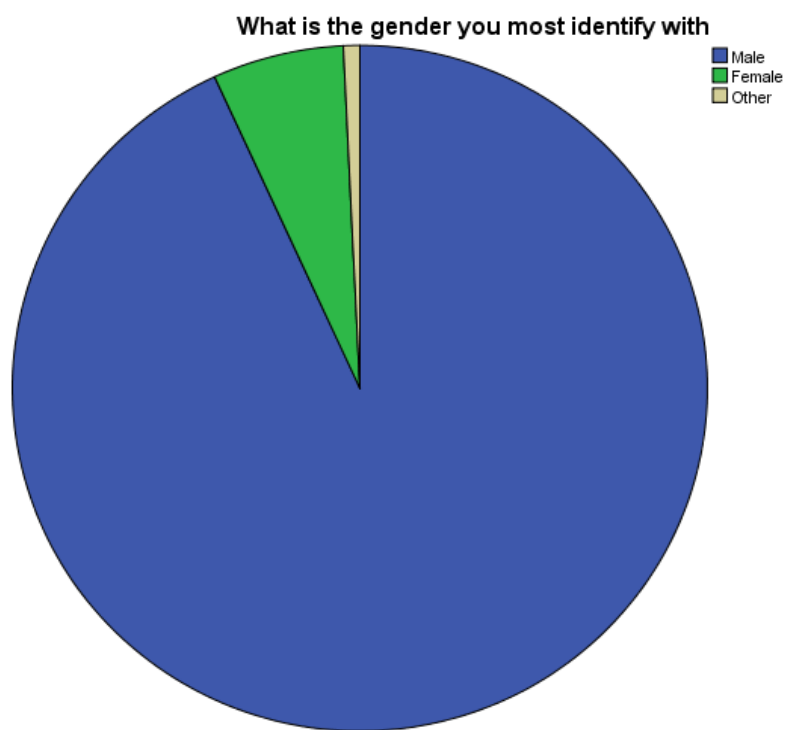


Figure 6. Veteran Participant Description: Gender

Source: Thomas & Bowie (2013)

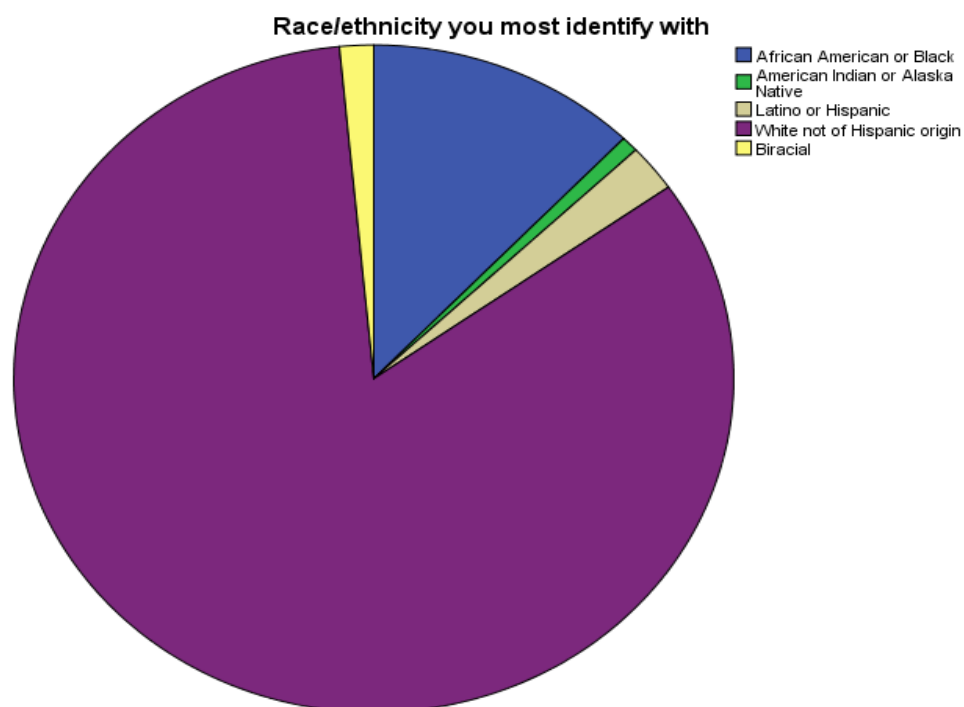


Figure 7. Veteran Participant Description: Race/Ethnicity

Source: Thomas & Bowie (2013)

***Religious identification and participation.*** In terms of religious preferences, the majority of veteran participants identified themselves as Christian (82.4%), followed by those who preferred to identify themselves with no faith (9.2%). A very small portion of veteran participants identified themselves as Confucius (.8%) and a larger portion (6.9%) identified themselves with religious preferences outside the major religions (Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism, Mormon, Taoism). A majority (82.5%) of veteran participants attend religious functions within their community at least once a year. Close to half

(40.5%) of the veteran participants reported attending services at least once a week, 17.6% reported monthly attendance and 24.4% reported attending services once/twice a year (Thomas & Bowie, 2013).

***Community location and connection.*** Veteran participants were more likely to report residing in the suburbs (29.0%) or rural (26.0%) communities than in urban communities (11.5%). More than half (51.9%) the participants reported feeling most connected to their local communities. More than a quarter (29.0%) reported feeling most connected to communities of identification and interests (such as veteran support groups, religious communities etc.), while 14.5% of veteran participants stated they felt most connected to virtual communities (such as Facebook, Twitter etc.). Most of the veteran participants considered their communities to be generally trustworthy (71.0%) (Thomas & Bowie, 2013) (see Figure 8) (Note: percentages do not add up to 100% due to missing data).

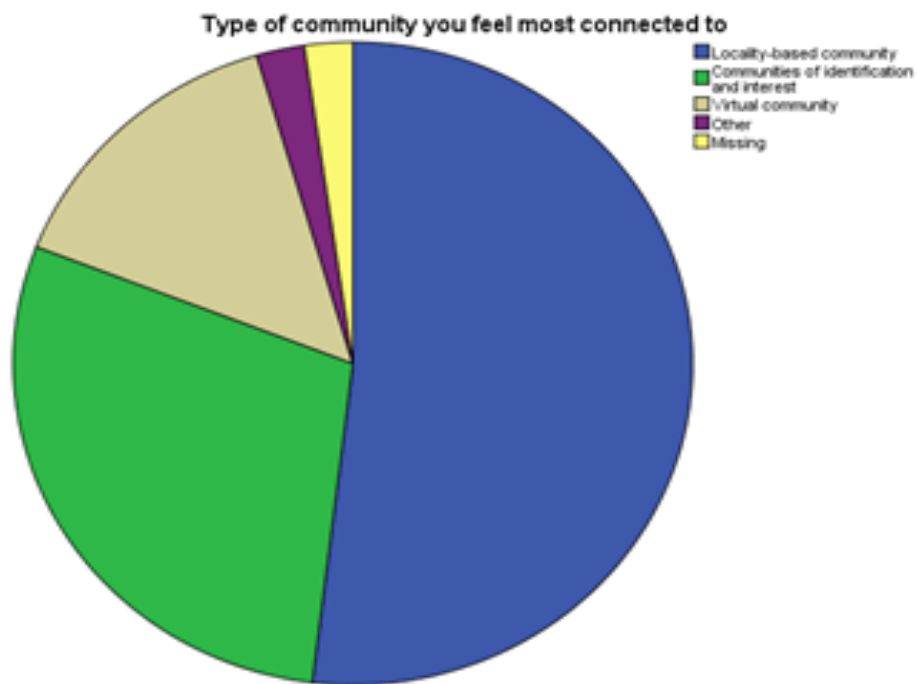


Figure 8. Veteran Participant Description: Community Connection

Source: Thomas & Bowie (2013)

***Relationship status, housing/income and access.*** In terms of relationships, more than 58.8% of veteran participants reported being married. Less than a quarter (20.6%) reported being single and 14.5% reported being divorced. Most participants (90.1%) reported spending ‘quality time’ with a close friend or significant other at least once a week. With regards to parental status, 73.3% of participants identified themselves as parents. With regard to housing,

6.9% of veteran participants considered themselves homeless. Participants reported an average of 3.2 individuals per household. In terms of average annual household income, 38.2% reported earning less than \$30,000. Close to a quarter 22.1% of participants reported earnings ranging from \$30,000-49,999, while a similar amount reported earnings from \$50,000-\$99,999. Ninety percent of participants reported access to internet and 93.9% reported access to transportation (Thomas & Bowie, 2013) (See Table 3).



Table 3. Demographic Characteristics of Veteran Participants: Relationship Status, Housing/Income, and Access (Thomas &amp; Bowie, 2013)

<i>Characteristic</i>	<i>Category</i>	<i>Participants Surveyed (N=131)</i>	
		<i>Number of Veteran Participants (N)</i>	<i>Percent (%)</i>
<b>Gender</b>	Male	122	93.1
	Female	8	6.1
<b>Race/Ethnicity</b>	African American or Black	16	12.2
	American Indian/Alaskan Native	1	.8
	Latino or Hispanic	3	2.3
	White not of Hispanic Origin	109	83.2
	Biracial	2	1.5
<b>Birthplace</b>	U.S.	128	97.7
	Other	3	2.3
<b>First Language</b>	English	126	96.2
	Other	5	3.8
<b>Religion</b>	Christian	108	82.4
	None	12	9.2
	Other	9	6.9
	Confucianism	1	.8
<b>Religious Participation</b>	At least Once a Week	53	40.5
	Once a Month	26	17.6
	Once/Twice a Year	32	24.4
<b>Type of Community</b>	Locality-based Community	68	51.9
	Communities of Identification and Interest	38	29.0
	Virtual Communities	19	14.5
	Other	3	2.3
	Strongly Agree/Agree	93	71.0
<b>Trustworthy Community Relationship Status</b>	Disagree/Strongly Disagree	6	4.6
	Married	77	58.8
	Single	27	20.6
	Divorced	19	14.5
	Widowed	2	1.5
	Cohabiting	4	3.1
	Other	1	.8
	Parent	96	73.3
<b>Parental Status</b>	Non-parent	34	26.0
	Homeless	9	6.9
<b>Household Income</b>	Less than \$30,000	50	38.2
	\$30,000 - \$49,999	29	22.1
	\$50,000 - \$99,999	28	21.4
	\$100,000 - \$149,999	10	7.6
	\$150,000 or more	8	6.1
<b>Internet Access</b>	Yes	118	90.1
	No	11	8.4
<b>Transportation Access</b>	Yes	123	93.9
	No	7	5.3

*Note:* Percentages may not add up to 100% due to missing data

***Education and employment.*** High levels of education were found among veteran participants, with over half (52.6%) reporting some level of college. In particular, 29% reported undergraduate education and 19.8% reported graduate education with 3.8% reporting post-graduate education. With regards to student status, most veteran participants stated they were not currently going to school (81.7%). A small proportion (16.8%) reported full-time (10.7%) and part-time (6.1%) student status. In terms of funding, the majority of veteran participants (64.9%) reported that their education was not being supplemented through the GI Bill (Thomas & Bowie, 2013).

Concerning employment issues, the original study found more than half (52.7%) the veterans surveyed were unemployed. Only 33.6% reported full-time employment and 12.2% reported part-time employment. Only 13% of these veterans reported having their income supplemented through unemployment compensation (see Table 4; Thomas & Bowie, 2013) (Note: percentages do not add up to 100% due to missing data).

***Veteran status and VA services.*** Almost all (96.2%) the participants who completed surveys stated that they were U.S. veterans. Five participants (3.8%) were identified as veterans based on their responses to previous military service in other questions (29-35). Approximately half (54.2%) of the individuals surveyed reported receiving VA services at some point in their lives (see Table 4; Thomas & Bowie, 2013) (Note: percentages do not add up to 100% due to missing data).

Table 4. Demographic Characteristics of Veteran Participants: Education, Employment, Veteran Status and VA Services (Thomas & Bowie, 2013)

<i>Characteristic</i>	<i>Category</i>	<i>Participants Surveyed (N=131)</i>	
		<i>Number of Veteran Participants (N)</i>	<i>Percent (%)</i>
<b>Student Status</b>	Full-time Student	14	10.7
	Part-time Student	6.1	
	Non-Student	107	81.7
<b>Highest Level of Education</b>	High school	51	38.9
	Undergraduate	38	29.0
	Graduate	26	19.8
	Post-Graduate	5	3.8
<b>GI Bill</b>	Yes	37	28.2
	No	85	64.9
<b>Employment Status</b>	Full-time Employed	44	33.6
	Part-time Employed	16	12.2
	Not-Employed	69	52.7
<b>Unemployment Compensation</b>	Yes	17	13.0
	No	109	83.2
<b>Veteran Status</b>	Yes	126	96.2
<b>VA Services</b>	Yes	71	54.2
	No	56	42.7

*Note:* Percentages may not add up to 100% due to missing data

**Military service.** Nearly half (48.1%) of the veteran participants reported serving in the Post 9/11 Iraq/Afghanistan Wars (OEF/OIF/OND). Sixteen percent reported serving during the Gulf War, 10% reported serving during the Cold War or Post-Cold War, 10% reported serving after the Vietnam War and 17.6% reported serving during the Vietnam War.

Most of the veteran participants (73.3%) reported that they had been deployed. Over half (53.4%) of them reported deployment to a combat-zone. Forty-two percent of veteran participants reported being in a combat situation and 30.5% reported experiencing service-related

trauma. Specifically, 27.5% of participants reported being wounded during service and 48.9% reported service-connected disabilities. Out of all these participants, only 52.2% of veterans reported receiving services from the VA (see Table 5; Thomas & Bowie, 2013) (Note: percentages do not add up to 100% due to missing data).

Table 5. Demographic Characteristics of Veteran Participants: Military Service (Thomas & Bowie, 2013)

<i>Service</i>	<i>Category</i>	<i>Participants Surveyed</i> ( <i>N=131</i> )	
		<i>Number of Veteran Participants (N)</i>	<i>Percent (%)</i>
<b>War Era</b>	Post 9/11	63	48.1
	Gulf War	21	16.0
	Cold War & Post	10	7.6
	Post-Vietnam	10	7.6
	Vietnam	23	17.6
<b>Deployment</b>	Yes	96	73.3
	No	33	25.2
<b>Combat-zone Deployment</b>	Yes	50	53.4
	No	59	45.0
<b>Combat Experience</b>	Yes	55	42.0
	No	72	55.0
<b>Service-Related Trauma</b>	Yes	40	30.5
	No	81	61.8
<b>Service-Related Injuries</b>	Yes	36	27.5
	No	91	69.5
<b>Service-Connected Disabilities</b>	Yes	64	48.9
	No	65	49.6
<b>VA Services</b>	Yes	71	54.2
	No	56	42.7

*Note:* Percentages may not add up to 100% due to missing data

## **Descriptive statistics of key variables**

**Veteran Community Reintegration difficulties.** The Military to Civilian Questionnaire (M2CQ) has been developed and used in previous veteran research. Sixteen questions on the scale measure the following domains of veteran community reintegration: (1) *interpersonal relationships with family, friends, and peers*; (2) *productivity*; (3) *self-care*; (4) *community participation*; (5) *leisure*; and, (6) *perceived meaning in life* (Sayer et al., 2011).

***Interpersonal relationships with family, friends, and peers.*** Over half (59.5%) the veteran participants reported “No Difficulty” dealing with people they did not know well. A slightly higher proportion (61.1%) of respondents reported “No Difficulty” making new friends. Approximately half (55.7%) of the veteran participants reported “No Difficulty” maintaining relationships with individuals who had no military experience. Lastly, most of the veteran participants (70.2%) reported “No Difficulty” maintaining relationships with those who have military experience (Sayer et al., 2010; Thomas & Bowie, 2013).

With regards to family relationships, more than half (60.3%) the veteran participants reported “No Difficulty” getting along with relatives living outside their home. A similar proportion of participants (57.3%) reported no difficulty getting along with their spouse and a slightly higher proportion (59.5%) of respondents reported “No Difficulty” getting along with their children (Sayer et al., 2010; Thomas & Bowie, 2013). In contrast, only 39.7% of veterans reported “No Difficulty” in confiding or sharing personal thoughts and feelings and 30.6% reported “A little Difficulty” or “Some Difficulty” in this area. Over a tenth of the veteran respondents reported “A lot of Difficulty” (12.2%) and “Extreme Difficulty” (11.5%) in this area (see Table 6) (Note: percentages do not add up to 100% due to missing data).

***Productivity.*** In the domain of social functioning (Sayer et al., 2010), more than half the veterans reported “no difficulty” compared to only 28.2% of veteran participants reported no difficulty with “finding or keeping a job”. Over half (59.6%) the veteran participants who were surveyed reported a range of difficulties in being able to find or keep a job. Some of these veterans underlined “finding” in efforts to distinguish that they had difficulty in this area versus the area of keeping a job (Thomas & Bowie, 2013).

In terms of other productivity issues, more than half (52.7%) the veteran participants reported “No Difficulty” in doing what they needed to do for work or school. A smaller proportion (37.8%) reported a range of difficulties in this area. In terms of taking care of chores at home, most (59.5%) veteran participants reported “No Difficulty” (Sayer et al., 2010). A smaller proportion (35.9%) reported a range of difficulties in this area (see Table 6; Thomas & Bowie, 2013) (Note: percentages do not add up to 100% due to missing data).

***Self-care.*** More than half (55.7%) the veteran participants reported “No Difficulty” taking care of their health. A slightly smaller proportion (40.5%) of respondents reported a range of when it came to taking care of their health (Sayer et al., 2010). The same proportion of veteran participants “No Difficulty” (55.7%) when it came to making good use of free time and the latter (40.5%) reported range of difficulties in this area. Finally, nearly half (47.3%) the veteran respondents reported “No Difficulty” when it came to finding meaning or purpose in their lives. Unfortunately, a similar proportion (47.4%) reported a range of difficulties in this area (see Table 6; Thomas & Bowie, 2013) (Note: percentages do not add up to 100% due to missing data).

***Community participation.*** Almost half (48.9%) the veteran participants reported “No Difficulty” participating in community events and 30.6% reported a range of difficulties

participating in these events. In addition to this, nearly a tenth (9.2%) of participants reported “Extreme Difficulty” when it came to participating in community events (Sayer et al., 2010). A slightly higher (53.4%) percentage of veteran participants reported “No Difficulty” feeling like they belonged in civilian society and a smaller proportion (39%) of respondents reported a range of difficulties in this area (see Table 6; Thomas & Bowie, 2013) (Note: percentages do not add up to 100% due to missing data).

***Leisure.*** More than half (55.7%) of the veteran participants reported no difficulties with enjoying or making good use of free time. On the other hand, almost half (40.5%) of the veteran participants reported a range of difficulties in this area (see Table 6; Sayer et al., 2010; Thomas & Bowie, 2013) (Note: percentages do not add up to 100% due to missing data).

***Perceived meaning in life.*** Less than half (47.3%) the veteran participants reported “No Difficulty” when it came to finding meaning or purpose in their lives. A similar proportion (47.4%) reported a range of difficulties in this area (see Table 6; Sayer et al., 2010; Thomas & Bowie, 2013) (Note: percentages do not add up to 100% due to missing data). This statistic is an indicator of individuals who may be at risk for suicide (USDVA, 2013). The proportion of individuals who were willing to answer specific questions about suicide will be discussed in a later section.

From a strengths perspective (Saleeby, 2008), more than half the veteran participants reported “No Difficulties” to most questions in the following reintegration areas: (1) *interpersonal relationships with family, friends, and peers*; (2) *productivity*; (3) *self-care*; (4) *community participation*; and, (5) *leisure* (Sayer et al., 2010). However, participants reported a range of difficulties in a few specific areas: 60% reported difficulties in finding or keeping a job,

54% reported difficulties in confiding/sharing thoughts/feelings and almost half (47%) the participants reported a range of difficulties in finding meaning or purpose in their lives (see Table 6; Thomas & Bowie, 2013).

Table 6. Military to Civilian Questionnaire: Results from Veteran Participants (Sayer et al., 2010 & 2011; Thomas & Bowie, 2013)

<i>Questions</i>	<i>Category</i>	<i>Respondents (N=131)</i>	
		<i>Number of Respondents (N)</i>	<i>Percent (%)</i>
<b>1. Dealing with people you do not know well</b>	No Difficulty	78	<b>59.5</b>
	Range of Difficulties	49	37.5
<b>2. Making new friends</b>	No Difficulty	80	<b>61.1</b>
	Range of Difficulties	46	35.1
<b>3. Maintaining friendships with civilians</b>	No Difficulty	73	55.7
	Range of Difficulties	51	39
<b>4. Maintaining friendships with veterans/active duty</b>	No Difficulty	92	<b>70.2</b>
	Range of Difficulties	33	24.1
<b>5. Getting along with relatives</b>	No Difficulty	79	<b>60.3</b>
	Range of Difficulties	45	36.7
<b>6. Getting along with spouse/partner</b>	No Difficulty	75	<b>57.3</b>
	Range of Difficulties	39	29.8
<b>7. Getting along with child/children</b>	No Difficulty	78	<b>59.5</b>
	Range of Difficulties	31	23.7
<b>8. Finding or keeping a job</b>	No Difficulty	37	28.2
	Range of Difficulties	78	<b>59.6</b>
<b>9. Doing what you need to for work/school</b>	No Difficulty	69	52.7
	Range of Difficulties	50	38.1
<b>10. Taking care of chores at home</b>	No Difficulty	78	59.5
	Range of Difficulties	47	35.9
<b>11. Taking care of Health</b>	No Difficulty	73	55.7
	Range of Difficulties	53	40.5
<b>12. Enjoying/making good use of free time</b>	No Difficulty	73	55.7
	Range of Difficulties	53	40.5
<b>13. Taking part in community events/celebrations</b>	No Difficulty	64	48.9
	Range of Difficulties	40	30.6
	Extreme Difficulty	12	9.2
<b>14. Feeling of belonging in “civilian” society</b>	No Difficulty	70	53.4
	Range of Difficulties	51	39.0
<b>15. Confiding/sharing personal thoughts/feelings</b>	No Difficulty	52	39.7
	Range of Difficulties	71	<b>54.3</b>
<b>16. Finding meaning or purpose in life</b>	No Difficulty	62	47.3
	Range of Difficulties	62	<b>47.4</b>

*Note:* Percentages may not add up to 100% due to missing data



**Sense of Community.** The Brief Sense of Community Scale (BSCS) was used to measure the following dimensions of SOC among veteran participants: (1) *needs fulfillment*; (2) *group membership*; (3) *influence*; and, (4) *shared emotional connection* (Peterson et al., 2008).

***Needs fulfillment.*** In terms of fulfillment, almost half (45.8%) of the veteran participants believed their needs could be met in their neighborhood. A smaller proportion (16.1%) disagreed with this statement. When asked in a different way, 42.7% of participants felt like their community fulfilled their needs, 13.7% disagreed with this statement (Peterson et al., 2008; Thomas & Bowie, 2013; see Figure 9) (Note: percentages do not add up to 100% due to missing data).

How well does this statement represent how you feel about your community: This neighborhood helps me fulfill my needs.

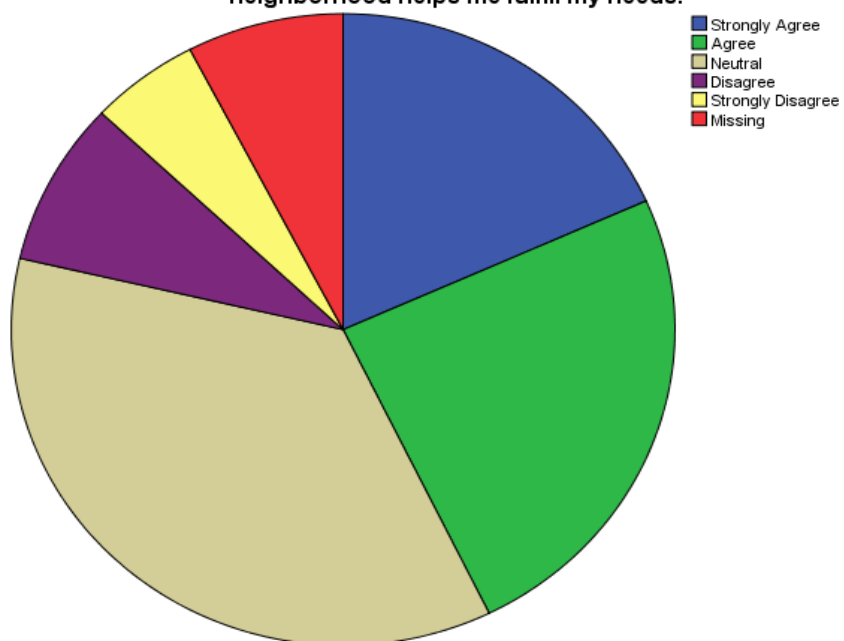


Figure 9. Veteran Participants Needs Fulfillment in their Communities

Source: Peterson et al. (2008); Thomas & Bowie (2013)

**Group membership.** Close to half (48.1%) the veteran participants reported that they felt like members of their neighborhood. A very small proportion (11.5%) disagreed with this statement. Similarly, more than half (55.0%) of the respondents felt like they were a part of their neighborhood, while less than a tenth (8.4%) reported they did not feel this way (Peterson et al., 2008; Thomas & Bowie, 2013; see Figure 10) (Note: percentages do not add up to 100% due to missing data).

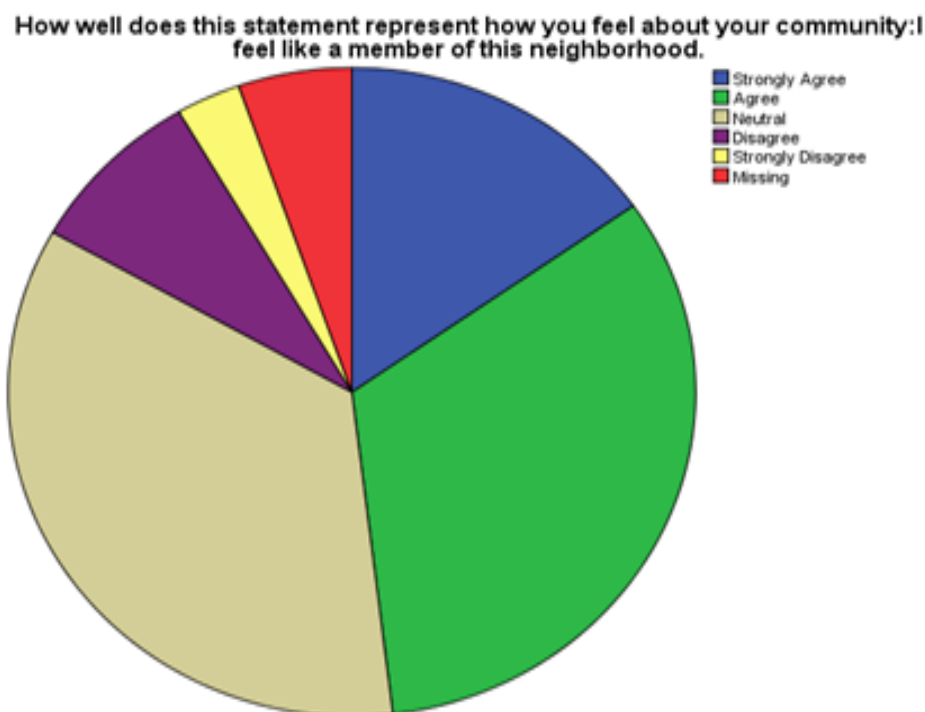


Figure 10. Veteran Participants Membership in their Communities

Source: Peterson et al. (2008); Thomas & Bowie (2013)

**Influence.** Only 32.1% of veteran participants reported feeling like they had a say in what went on in their community. A slightly larger proportion (20.6%) did not feel like they had influence in their neighborhood. Similarly, only 31.3% of veteran participants felt like people in the neighborhood were good at influencing each other. A little over a tenth (12.2%) of the respondents did not feel like people in their neighborhoods were good at influencing each other (Peterson et al., 2008; Thomas & Bowie, 2013; see Figure 11) (Note: percentages do not add up to 100% due to missing data).

**How well does this statement represent how you feel about your community: I have a say about what goes on in my neighborhood.**

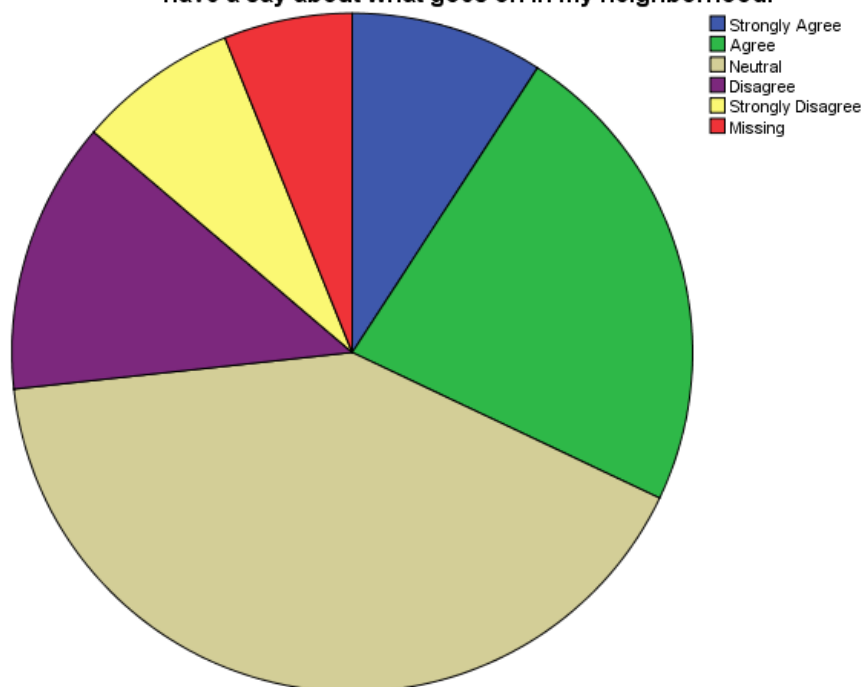


Figure 11. Veteran Participants Sense of Influence in their Communities

Source: Peterson et al. (2008); Thomas & Bowie (2013)

***Shared connection.*** Nearly half (45.8%) the veteran participants reported feeling a connection to their neighborhoods. Only 12.9% of those surveyed stated that they did not feel connected to their neighborhoods. Similarly, nearly half (48.8%) the veteran participants reported having a good bond with others in their neighborhoods. Only 8.4% of those surveyed stated that they did not feel this way about their neighborhood (Peterson et al., 2008; Thomas & Bowie, 2013; see Figure 12 & Table 7) (Note: percentages do not add up to 100% due to missing data).

How well does this statement represent how you feel about your community:  
I feel connected to this neighborhood.

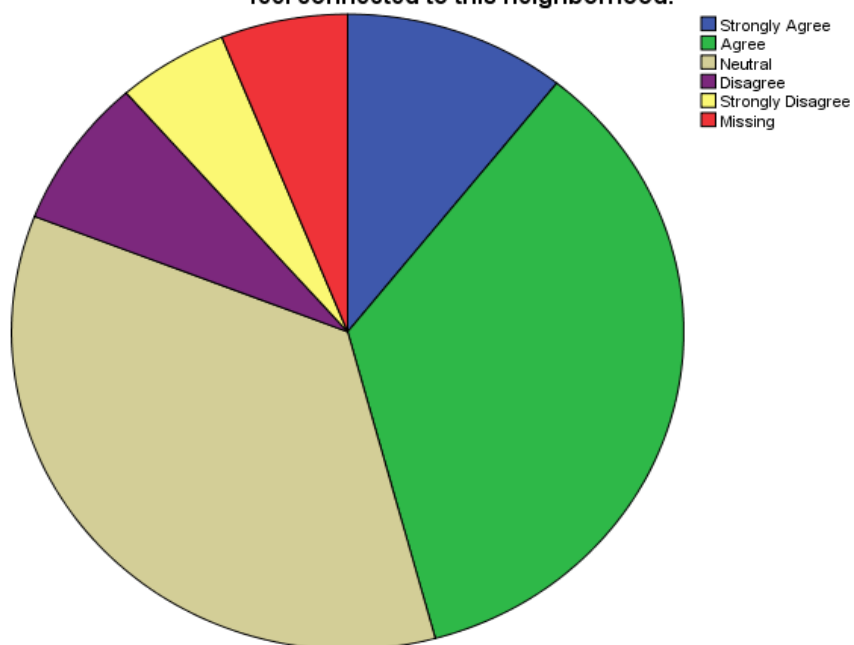


Figure 12. Veteran Participants Sense of Connection to their Communities

Source: Peterson et al. (2008); Thomas & Bowie (2013)

Table 7. Brief Sense of Community Scale: Results for Veteran Participants (Peterson et al., 2008; Thomas &amp; Bowie, 2013)

<i>Questions</i>	<i>Category</i>	<i>Respondents</i> <i>(N=131)</i>	
		<i>Number of</i> <i>Respondents (N)</i>	<i>Percent</i> <i>(%)</i>
<b>1. I can get what I need in this neighborhood.</b>	Agree	84	45.8
	Neutral	43	32.8
	Disagree	21	16.1
<b>2. This neighborhood helps me fulfill my needs.</b>	Agree	56	42.7
	Neutral	47	35.9
	Disagree	18	13.7
<b>3. I feel like a member of this neighborhood.</b>	Agree	63	48.1
	Neutral	46	35.1
	Disagree	15	11.5
<b>4. I belong in this neighborhood.</b>	Agree	72	<b>55.0</b>
	Neutral	40	30.5
	Disagree	11	8.4
<b>5. I have a say about what goes on in my neighborhood.</b>	Agree	42	<b>32.1</b>
	Neutral	54	41.2
	Disagree	27	20.6
<b>6. People in this neighborhood are good at influencing each another.</b>	Agree	41	31.3
	Neutral	66	50.4
	Disagree	16	12.2
<b>7. I feel connected to this neighborhood.</b>	Agree	60	45.8
	Neutral	46	35.1
	Disagree	17	12.9
<b>8. I have a good bond with others in this neighborhood.</b>	Agree	64	48.8
	Neutral	48	36.6
	Disagree	11	8.4

*Note:* Percentages may not add up to 100% due to missing data

**Veteran Community Reintegration risk factors. *Post-Traumatic Stress Disorder.***

According to the American Psychological Association (2013), the following criteria must be met to diagnose and individual with Post-Traumatic Stress Disorder (PTSD):

First four criteria: History of exposure to a traumatic event that meets criterion from of four symptom clusters:

- Intrusion
- Avoidance
- Negative alterations in cognitions and mood
- Alterations in arousal and reactivity

Sixth criterion: Duration of symptoms

Seventh criterion: Functioning

Eighth criterion: Clarifies symptoms as not attributable to a substance or co-occurring medical condition each of four symptom clusters. (para. 3, USDVA, 2013b) (American Psychological Association [APA], 2013)

The Veteran Community Reintegration Survey (VCRS) (Thomas & Bowie, 2012) was piloted at TVBA's 2013 3<sup>rd</sup> Annual Business Expo. On this survey, 23% of veteran participants reported having a diagnosis of PTSD. Researchers also screened for PTSD symptoms using the Primary Care PTSD Screen (PC-PTSD). This scale has been used to screen veterans at the VA and it has been used in prior military research (Oliver 2010; Prins et al., 2003; 2004; Sayer et al., 2011). Results indicated that the majority of veteran participants (54.2%-61.1%) reported no PTSD symptoms. However, a small proportion of 32.8 % of respondents reported having intrusive nightmare or thoughts about traumatic experiences. Similarly, 33.6% of respondents



reported avoiding thoughts or situations that reminded them of a traumatic event. A slightly higher proportion (38.9%) of respondents reported that they were constantly on guard, watchful or easily startled because of a traumatic past experience. Lastly, a similar proportion (35.9%) of veteran participants reported feeling numb, detached from others, activities or surroundings due to a traumatic experience (Thomas & Bowie, 2013; see Table 8) (Note: percentages do not add up to 100% due to missing data) .

Table 8. Primary Care PTSD Screen: Results for Veteran Participants (Prins et al., 2003; 2004; Thomas & Bowie, 2013)

<i>Questions</i>	<i>Category</i>	<i>Respondents (N=131)</i> <i>Number of Respondents (N)</i>	<i>Percent (%)</i>
<i>In your life, have you ever had any experience that was so frightening, horrible, or upsetting that, in the past month, you:</i>			
<b>1. Had nightmares it or thought about it when you did not want to?</b>	Yes	43	<b>32.8</b>
	No	80	61.1
<b>2. Tried hard not to think about it or went out of your way to avoid situations that reminded you of it?</b>	Yes	44	33.6
	No	79	60.3
<b>3. Were constantly on guard, watchful, or easily startled?</b>	Yes	51	<b>38.9</b>
	No	71	54.2
<b>4. Felt numb or detached from others, activities, or your surroundings</b>	Yes	47	35.9
	No	77	58.8

*Note:* Percentages may not add up to 100% due to missing data

***Suicidal ideation.*** The Ultra-Short-Form Suicidal Ideation Thinking Measure (USSTM) (Nugent, 2005) has been used and developed in a clinical setting, where services were provided to individuals of all ages who faced difficulties in the community reintegration domains mentioned by Sayer et al. (2011). The majority (79.4%) of veterans reported that they did not think about suicide. However, a small proportion (14.6%) of participants reported a range of frequencies in terms of how often they thought about suicide (Thomas & Bowie, 2013).

The Suicide Behavior Questionnaire (SBQ-R) (Osman et al., 1999) has been used in previous military research (Rudd, Goulding, & Bryan, 2011), this revised version is a 4-item scale that taps into four dimensions of sociality: (1) lifetime ideation; (2) ideation frequency over the past year; (3) suicide attempt history; and, (4) self-reported likelihood future suicide attempt. The majority (73.3%) of veterans surveyed stated that they had “never” thought about suicide in the past year. However, the proportion (21.3%) of respondents who admitted to thinking of killing themselves between 1 and 5 times over the past year was slightly higher than the risk proportion indicated on the previous scale (Thomas & Bowie, 2013).

Compared to 13.5% (Kessler et al., 1999) of individuals in the general population who reported a history of suicidal ideation, 14.6% of veteran participants admitted to having suicidal thoughts on the USSTM (Nugent, 2005). On the other hand, a higher percentage (21.3%) of participants admitted to thoughts of suicide over the past year when answering questions on the SBQ-R (Osman et al., 1999). According to Simpson and Tate (2002), survivors of TBI (6.1% of respondents in the original study) are more at risk for suicide. Individuals with PTSD and other psychiatric disorders (24% of veteran participants) and other psychiatric disorders are also more at risk for suicide. Psychosocial factors such as employment difficulties (60% of veteran

participants) also increase the risk for suicidal behaviors and suicide attempts (Thomas & Bowie, 2013; USDVA, 2013c; see Table 9) (Note: percentages may not add up to 100% due to missing data).

Table 9. Ultra-Short-Form Suicidal Ideation Thinking Measure & Suicide Behavior Questionnaire Veteran Participants' Suicidal Ideation (Nugent, 2005; Osman et al., 1999; Thomas & Bowie, 2013)

<i>Questions</i>	<i>Category</i>	<i>Respondents (N=131) Number of Respondents (N)</i>	<i>Percent (%)</i>
<b>I think about committing suicide:</b>	None of the time	104	79.4
	Very Rarely	12	9.2
	A little of the time	4	3.1
	Some of the time	2	1.5
	A good part of the time	1	.8
<b>How often have you thought about killing yourself</b>	Never	96	73.3
	Rarely (1 time)	18	13.7
	Sometimes (2 times)	6	4.6
	Often (3-4 times)	2	1.5
	Very Often (5 or more times)	2	1.5

*Note:* Percentages may not add up to 100% due to missing data

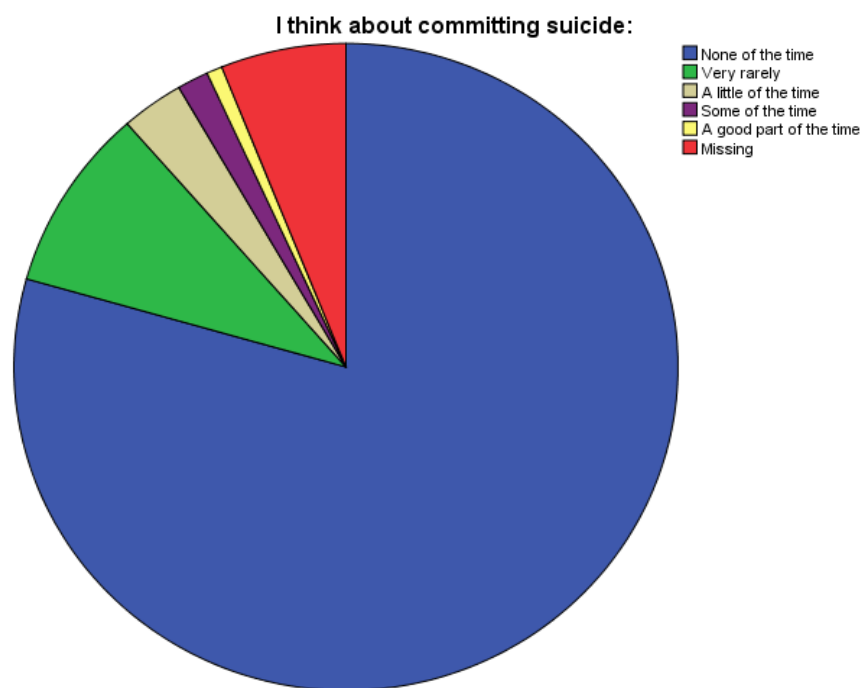


Figure 13. How often Veteran Participants Thought about Suicide

Source: Nugent (2005); Thomas & Bowie (2013)

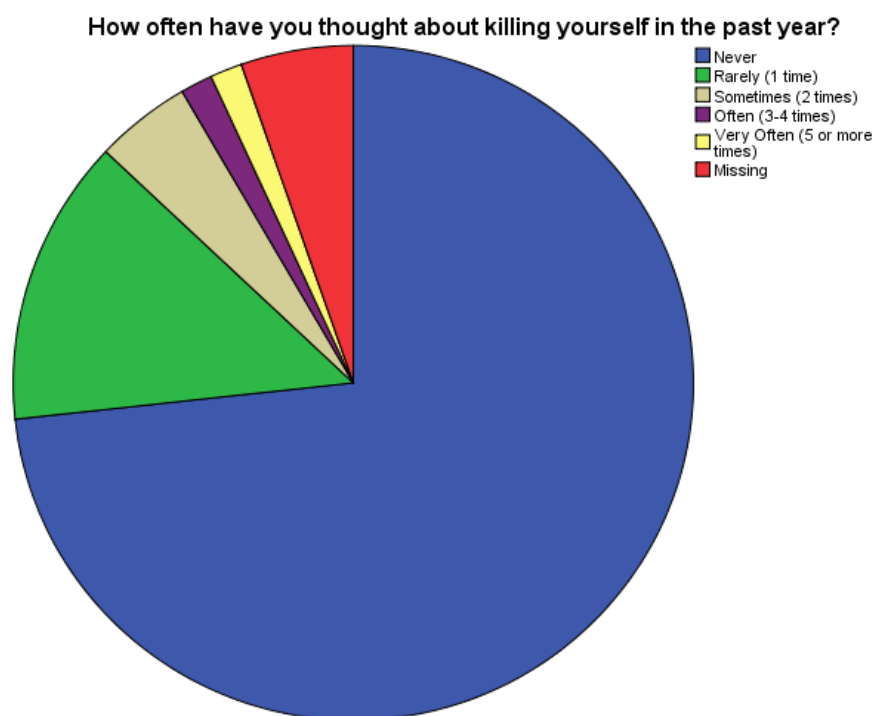


Figure 14. How often Veteran Participants Thought about Killing Themselves in the Past Year

Source: Osman et al. (1999); Thomas & Bowie (2013)

## Results

**Descriptive statistics. Preliminary data analysis. Missing Value Analysis.** Missing data poses problems in most methods of statistical analysis (Little & Rubin, 2002). Allison (2003), details how listwise or pairwise deletion methods are not as rigorous in estimating missing data as maximum likelihood (ML) is for structural equation models (SEMs) and multiple imputation (MI) is for other models of statistical analysis. Therefore, ML will be used to estimate missing data in the present study.

Results from the Missing Values Analysis (MVA) conducted in SPSS 20 (IBM Corp., 1989, 2011) indicated that 71 of the 78 (91.0%) variables had at least one missing value on a case. In addition to this, 61 out of 131 (46.6%) cases had missing values (MVs) on at least one variable. Lastly, 403 of the 10218 values (3.9%; cases  $\times$  variables) are missing.

**Frequencies.** Frequency distribution statistics for key variables *other* than depression symptoms were conducted in a previous VCR study (Thomas & Bowie, 2013). The results of this study are described in the background portion of this section.

As mentioned before, the CES-D is a widely used screening tool which measures the severity of depression symptoms (Radloff, 1977). A 10 item version of the CESD (Galbraith, 2014; Zhang et al., 2012) was used to measure depressive symptoms in the VCRS (Thomas & Bowie, 2012). In the present study, the total score on the short-form CESD was calculated for this variable. The mean score on this variable was 17.92 (*SD* 5.90). The following percentages were results of descriptive statistics from individual items on the CESD-10 scale. Veteran participants in the current study reported struggling with the following depression symptoms 3-5 days in the past week: (1) 11.4% reported being bothered by things that usually did not bother

them; (2) 12.2% reported trouble focusing on a task at hand; (3) 19.8% reported feeling depressed; (4) 12.2% reported feeling that everything they did was an effort; (5) 53.4% reported not feeling hopeful about the future (reversed scored item); (6) 9.2% reported feeling fearful; (7) 38.9% reported restless sleep; (8) 65.7 reported not feeling happy (reversed scored item); (9) 16.8% reported feeling lonely; and, (10) 14.3% reported difficulty with being able to “get going” (Galbraith, 2014, p. 2; see Figure 15 & Table 10) (Note: percentages may not add up to 100% due to missing data).

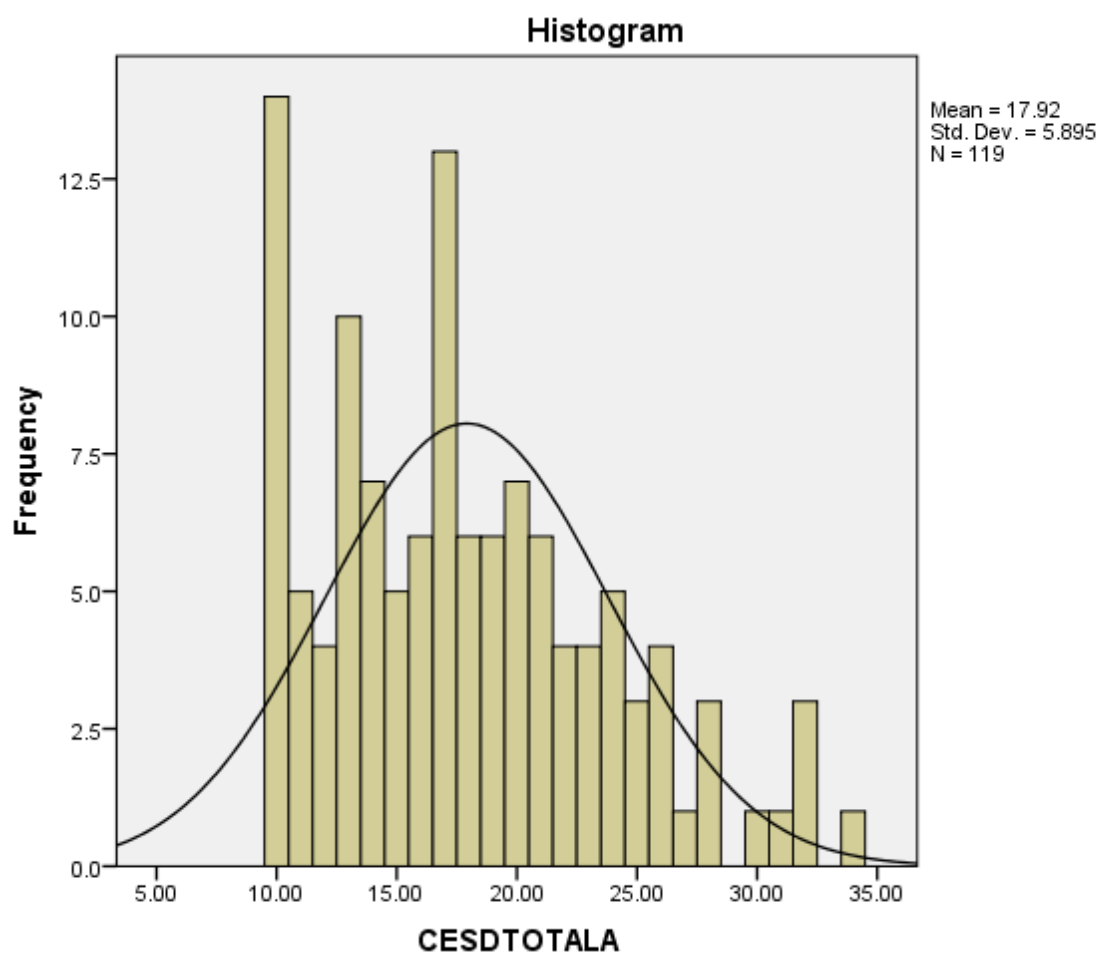


Figure 15. Frequency Distribution of CESD-10

Sources: Radloff (1977); Thomas & Bowie (2012); and, (Zhang, 2012)



Table 10. Descriptive Statistics from Center for Epidemiologic Studies Short Depression Scale (CES-D10) scale among Veteran Participants in current study

<i>Questions Please indicate how often you felt this way during the past week:</i>	<i>Category</i>	<i>Participants Surveyed (N=131) Number of Respondents(n)</i>	<i>Percent</i>
1. I was bothered by things that usually don't bother me.	Rarely or none of the time(less than 1 day)	75	57.3
	Some or a little of the time (1-2 days)	32	24.4
	Occasionally or a moderate amount of time (3-4 days)	13	9.9
	All of the time (5-7 days)	2	1.5
2. I had trouble keeping my mind on what I was doing	Rarely or none of the time(less than 1 day)	63	48.1
	Some or a little of the time (1-2 days)	42	32.1
	Occasionally or a moderate amount of time (3-4 days)	11	8.4
	All of the time (5-7 days)	5	3.8
3. I felt depressed.	Rarely or none of the time(less than 1 day)	66	50.4
	Some or a little of the time (1-2 days)	31	23.7
	Occasionally or a moderate amount of time (3-4 days)	18	13.7
	All of the time (5-7 days)	8	6.1
4. I felt that everything I did was an effort.	Rarely or none of the time(less than 1 day)	70	53.4
	Some or a little of the time (1-2 days)	37	28.2
	Occasionally or a moderate amount of time (3-4 days)	11	8.4
	All of the time (5-7 days)	5	3.8
1. I felt hopeful about the future.	Rarely or none of the time(less than 1 day)	38	29.0
	Some or a little of the time (1-2 days)	32	24.4
	Occasionally or a moderate amount of time (3-4 days)	31	23.7
	All of the time (5-7 days)	22	16.8
6. I felt fearful.	Rarely or none of the time(less than 1 day)	84	64.1
	Some or a little of the time (1-2 days)	26	19.8
	Occasionally or a moderate amount of time (3-4 days)	6	4.6
	All of the time (5-7 days)	6	4.6
7. My sleep was restless.	Rarely or none of the time(less than 1 day)	43	32.8
	Some or a little of the time (1-2 days)	29	22.1
	Occasionally or a moderate amount of time (3-4 days)	29	22.1
	All of the time (5-7 days)	22	16.8
8. I was happy.	Rarely or none of the time(less than 1 day)	42	32.1
	Some or a little of the time (1-2 days)	44	33.6
	Occasionally or a moderate amount of time (3-4 days)	25	19.1
	All of the time (5-7 days)	12	9.2
9. I felt lonely.	Rarely or none of the time(less than 1 day)	68	51.9
	Some or a little of the time (1-2 days)	32	24.4
	Occasionally or a moderate amount of time (3-4 days)	15	11.5
	All of the time (5-7 days)	7	5.3
10. I could not "get going."	Rarely or none of the time(less than 1 day)	62	47.3
	Some or a little of the time (1-2 days)	42	32.1
	Occasionally or a moderate amount of time (3-4 days)	16	12.2
	All of the time (5-7 days)	3	2.3

*Note:* Percentages may not add up to 100% due to missing data

**Correlations.** A correlation analysis was performed to measure the degree of linear association among exogenous variables in this study (depression symptoms, PTSD symptoms, suicidal ideation, and unemployment) (Thomas & Bowie, 2013). Results from this analysis, shown below in Table 11, indicated a statistically significant negative association between depression symptoms ( $r = -.607, p < .01$ ) and PTSD symptoms. Suicidal ideation was found to be positively correlated with depression symptoms ( $r = .495, p < .01$ ) and negatively correlated with PTSD symptoms ( $r = -.344, p < .01$ ). No significant correlation was found between employment and any of the exogenous (independent) variables in this study (see Table 11).

Significant relationships were found between the mediation variable (SOC) and most of the exogenous variables. Specifically, a negative relationship was found between SOC and PTSD symptoms ( $r = -.354, p < .01$ ). Conversely, SOC was positively related to both depression symptoms ( $r = .453, p < .01$ ) and suicidal ideation ( $r = .320, p < .01$ ). Lastly, No significant relationship was found between employment status and SOC (see Table 11).

A significant association was found between the mediation variable (SOC) and the endogenous variable (VCR difficulties) ( $r = .476, p < .01$ ). VCR difficulties was found to be negatively related to PTSD symptoms ( $r = -.487, p < .01$ ) and employment status ( $r = -.183, p < .05$ ). Conversely, VCR difficulties was positively related to depression symptoms ( $r = .640, p < .01$ ) and suicidal ideation ( $r = .456, p < .01$ ). No significant relationship was found between employment status and VCR difficulties in this sample of veteran participants. These results are illustrated in Table 11.

Table 11. Means and Zero-Order Correlations among Key Variables in current study (N=131)

Variables	1	2	3	4	5	6
1. Depression Symptoms	1					
2. PTSD Symptoms	-.607**	1				
3. Suicidal Ideation	.495**	-.344**	1			
4. Employment Status	.025	.033	-.087	1		
5. SOC	.453**	-.354**	.320**	-.081	1	
6. VCR Difficulties	.640**	-.487**	.456**	-.183*	.476**	1

\*  $p < 0.05$  level (2-tailed), \*\*  $p < 0.01$  level (2-tailed).

**Psychometric Analyses. Reliability Analysis.** Among this sample of veteran participants (Thomas & Bowie, 2013), Chronbach's  $\alpha$  for the M2CQ scale (Sayer et al., 2010) was .90. The reliability of scores for the PC-PTSD (Prins, et al., 2003) among veteran participants in this sample was .88. Chronbach's  $\alpha$  for the CESD-10 (Radloff, 1977; Zhang, 2012) was .85 among veteran participants in this sample. Since one item from two suicide scales (Nugent, 2005; Rudd et al., 2011) were used, the items were combined for the purpose of reliability analysis. Results of this analysis indicated that Chronbach's  $\alpha$  for the combined items was .75 among this sample of veteran participants. These results are shown below in Table 12.

Table 12. Reliability Statistics for Scales &amp; Items in current study

Scales	N of Items	Chronbach's Alpha
M2C-Q (Sayer et al., 2010)	16	.90
PC-PTSD (Prins et al., 2003)	4	.88
CESD-10 (Radloff, 1977; Zhang, 2012)	10	.85
USSTM (Nugent, 2005); SBQR (Osman et al. 1999)	2	.75
BSCS (Peterson et al., 2008)	8	.91
	Mean Alpha Coefficient=	.86

*Assessment of SEM Assumptions.* According to Bryne (2001), SEM is based on the assumption of multivariate normality. If this assumption is violated, findings may be erroneous and lead to misinterpretation. In addition to this, outliers may significantly change model fit. According to Kim (2013), the “eyeball test” (p. 52) is appropriate for medium size samples, such as the sample of veteran participants in this data set. Using this test on Figures 16-20, the variables tested did not have a normal distribution. According to Yaun & Bentler (2000), variables in the social sciences tend to assess phenomena that violate assumptions of multivariate normality.

Kim (2013) suggests that the use of assessments of skewness and kurtosis to test for assumptions of normality are appropriate methods for medium sample sizes (such as current study’s  $N=131$ ) in clinical research. The author goes on to suggest the following method to be used to interpret this sample size: For medium-sized samples ( $50 < n < 300$ ), reject the null hypothesis at absolute z-value over 3.29, which corresponds with a [*sic*] alpha level 0.05, and conclude the distribution of the sample is non-normal (p. 53). Based on these standards, the null hypothesis can be rejected on all scores on the above scales except for the M2CQ scale. With the exception of the M2CQ scale, it can be concluded that their distributions are non-normal, which also validates the “eyeball” (p.52) test (see Figures 16-20 & Table 13).

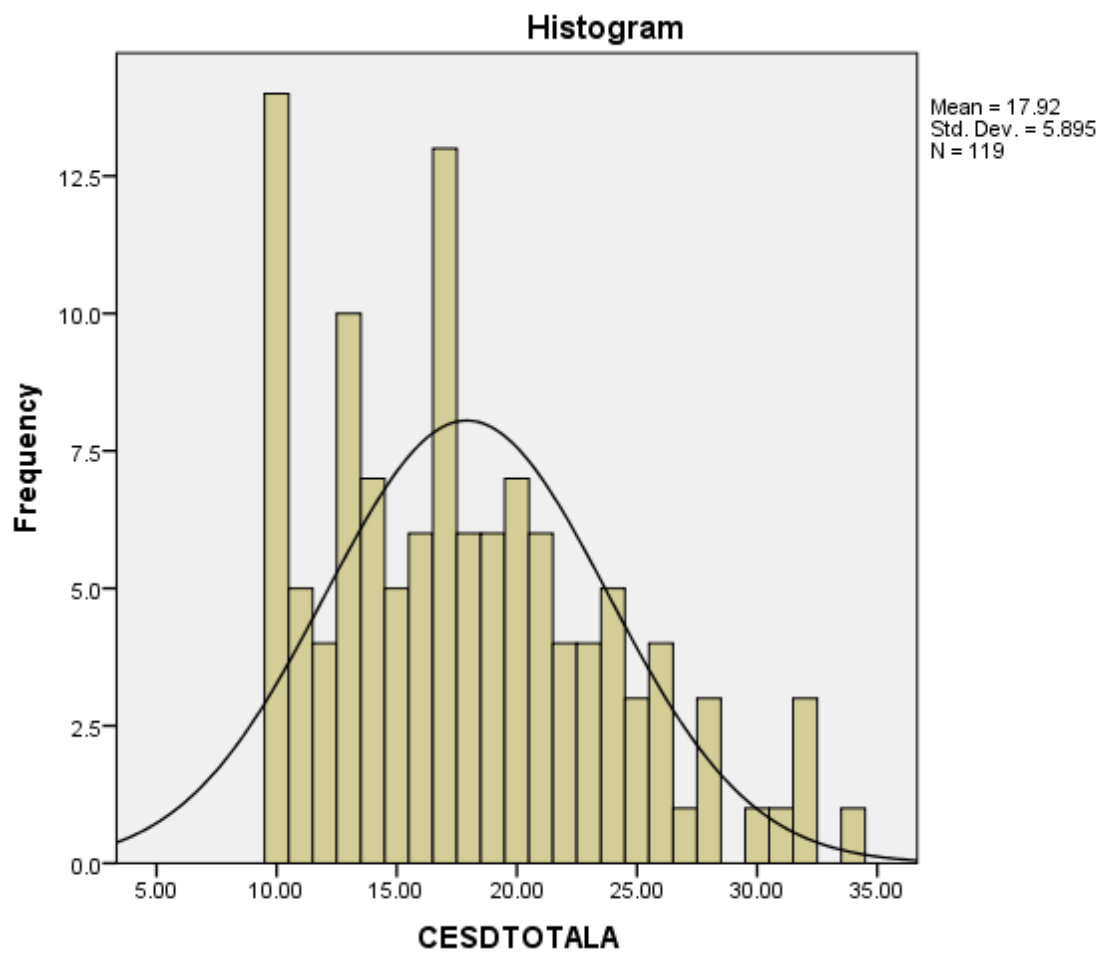


Figure 16. Frequency Distribution of CESD-10

Sources: Radloff (1977); Thomas & Bowie (2012); and, (Zhang, 2012)

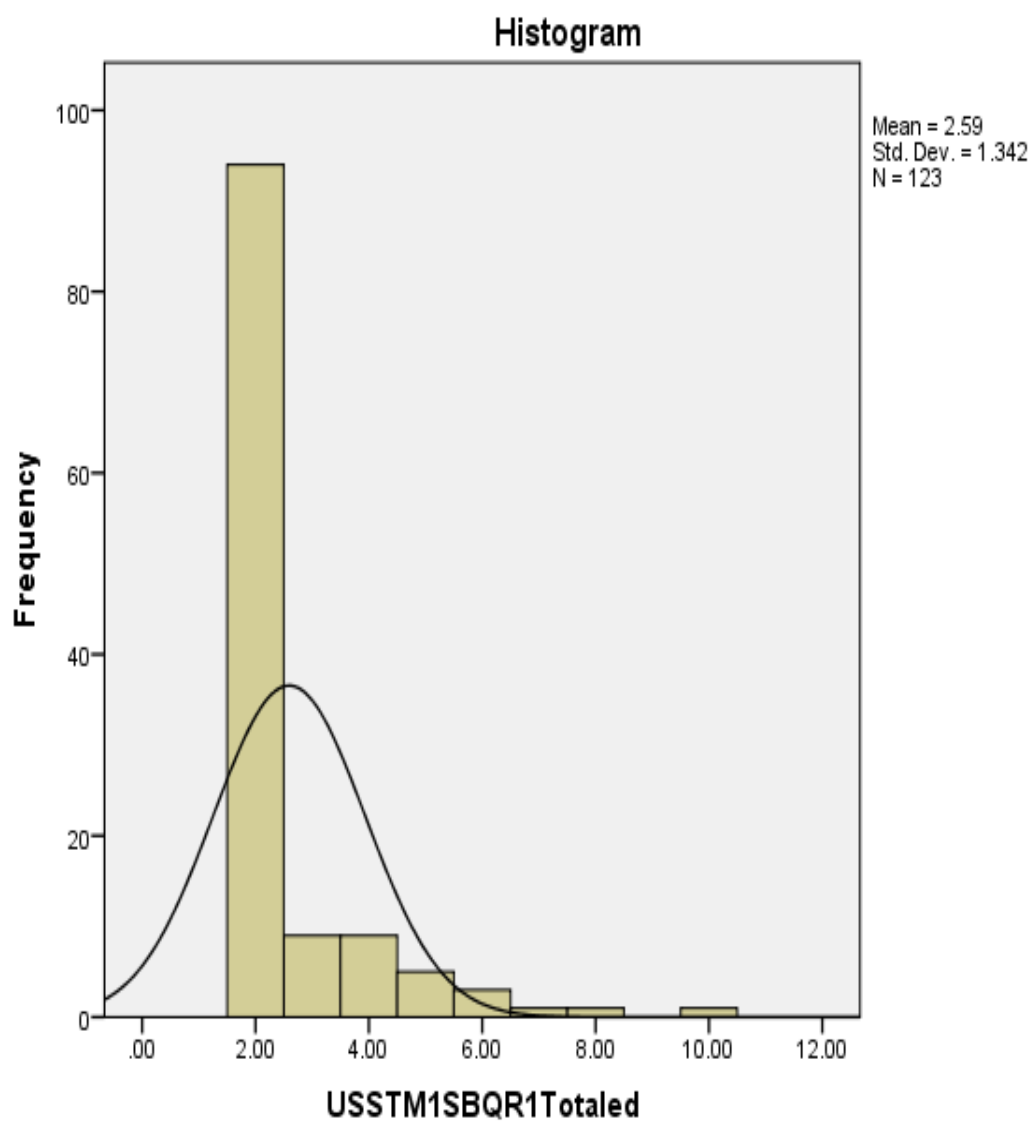


Figure 17. Frequency Distribution of USSTM & SBQR 1 item each in VCR Survey

Sources: Nugent (2005); Osman et al. (1999); and, Thomas & Bowie (2012)

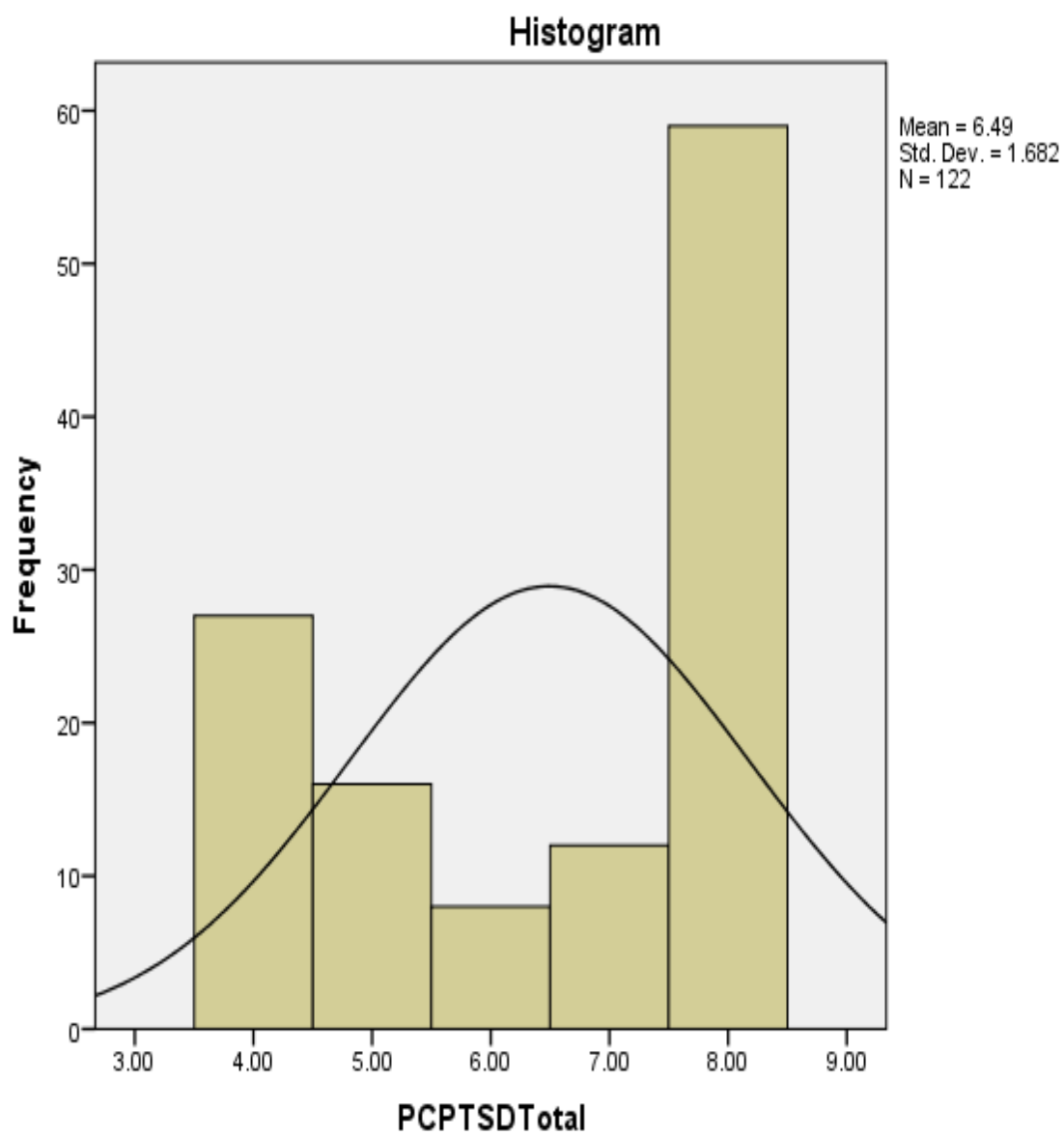


Figure 18. Frequency Distribution of PC-PTSD

Sources: Prins et al. (2003) and Thomas & Bowie (2012)

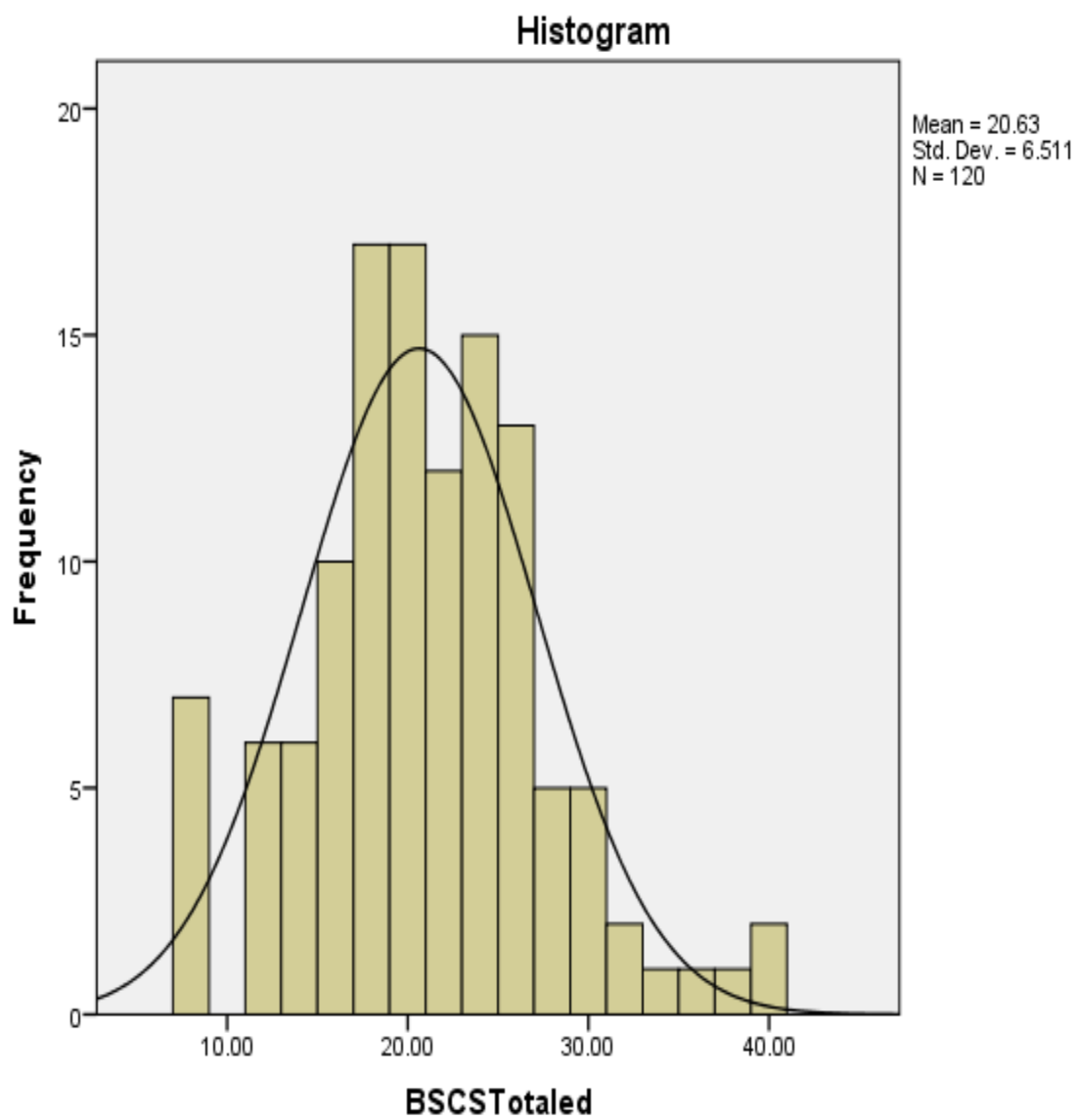


Figure 19. Frequency Distribution of BSCS

Sources: Peterson et al. (2008) and Thomas & Bowie (2012)



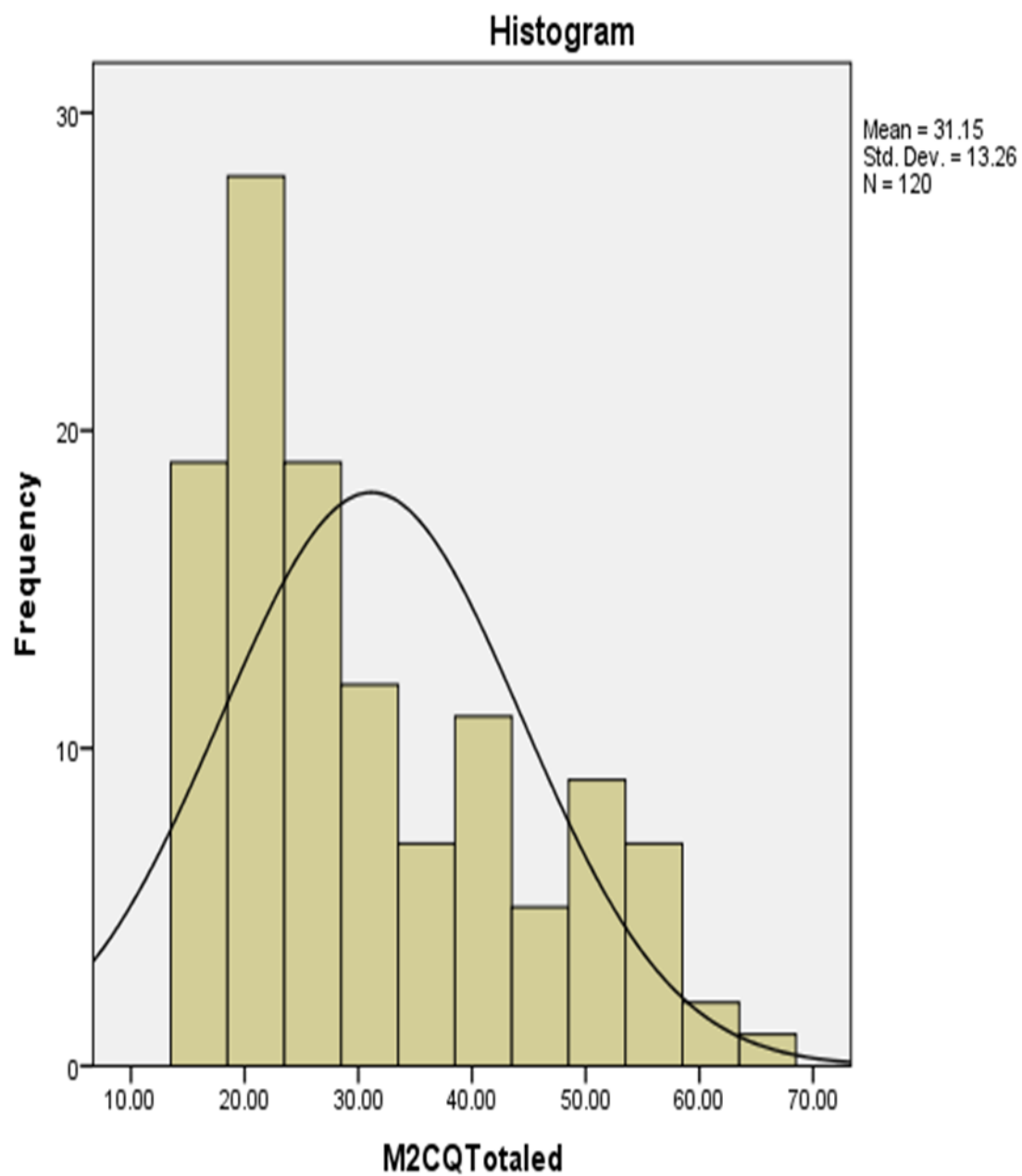


Figure 20. Frequency Distribution of M2CQ

Sources: Sayer et al. (2010) and, Thomas & Bowie (2012)

Table 13. Distribution of scores on Key Variable Scales (Nugent, 2005; Osman et al., 1999; Peterson et al., 2008; Prins et al., 2003; Radloff, 1977; Thomas & Bowie, 2012; Zhang, 2012)

<i>Scale</i>	<i>Skewness</i>	<i>S.E. skewness</i>	<i>z-score skewness</i>	<i>Kurtosis</i>	<i>S.E. kurtosis</i>	<i>z-score kurtosis</i>	<i>Kolmogorov-Smirnov* Statistics</i>	<i>p-value</i>	<i>Shapiro-Wilk Statistics</i>	<i>p-value</i>
CESD-10	.610	.22	2.77	-.209	.44	-.475	.100	.006	.948	.000
USSTM1&SBQR1	2.91	.22	13.23	9.83	.43	22.86	.452	.000	.537	.000
PC-PTSD	-.47	.22	-2.14	-1.5	.44	-3.41	.310	.000	.747	.000
BSCS	.32	.22	.07	.50	.44	1.14	.076	.000	.973	.027
M2CQ	.81	.22	.18	-.40	.44	-.91	.135	.130	.906	.000

In efforts to deal with the non-normal distributions of key study variables various methods of estimation were explored. It was determined that Multiple Imputation (MI) was not a feasible way to address distribution issues due to the large amount of missing data (46.6%), commonly found in survey studies in the social sciences. Listwise deletion was also not a feasible option since it would have reduced the sample size to a number that would not have been appropriate for SEM (Kline, 2005). Maximum Likelihood (ML) was the best estimation method that could be used to run the path analysis, given the limitations of this dataset. If the sample size had been more than the number of free parameters squared, it would be appropriate to use the Asymtotic Distribution-Free (ADF) method of estimation to assess these variables, which violate the multivariate assumption in an SEM model (Yaun & Bentler, 2000).

**Confirmatory Factor Analysis.** Byrne (2001) suggests that the rigor found in structural equation modeling (SEM) is due to validity testing during the confirmatory factor analysis (CFA) as part of the process. It involves the statistical testing for validity structures created based on measurement instruments Schreiber, Amaury, Stage, Barlow, and King (2006), describe CFA as data analysis technique based on theory. Subsequently, the planning of this analysis took into

consideration the theoretical relationships between the latent variables of suicidal ideation, depression, PTSD, unemployment, SOC and VCR difficulties and their observed variables (see Figure 21).

*Measurement model description.* The measurement model of the relationships between VCR risk factors, SOC and VCR difficulties is depicted in Figure 21. This measurement model consists of five latent variables (suicidal ideation, PTSD symptoms, depression symptoms, SOC, and VCR difficulties) and 40 observed variables, the items on the USSTM1 & SBQR1; PCPTSD 1-PCPTSD4; CESDR1-CESDR10; BSCS1-BSCS8; and, M2CQ1-M2CQ16 scales. Specifically, the latent variable of suicidal ideation is constructed by two observed variables (USSTM1 & SBQR1). One item is from the Ultra-Short-Form Measure of Suicidal Ideation (USSTM) scale (Nugent, 2005) and the other is from the Suicide Behavior Questionnaire – Revised (SBQ-R) scale (Rudd et al., 2011). The latent variable of PTSD symptoms is constructed by four observed variables (PCPTSD 1-PCPTSD4) from the PC-PTSD scale (Prins et al., 2003). The latent variable for depression symptoms is constructed by ten observed variables (CESDR1-CESDR10) from the Center for Epidemiologic Studies Short Depression Scale (CESD-10) (Radloff, 1977; Zhang, 2012). The latent variable SOC is constructed by eight observed variables (BSCS1-BSCS8) from the Brief Sense of Community scale (Peterson et al., 2008). Lastly, the latent variable VCR difficulties is measured by 16 observed variables from the Military to Civilian Questionnaire (Sayer et al., 2010). Constraints were added to all latent variables for the CFA. In the second CFA model, four error terms measuring depression (eD9-eD10; eD5-eD8) and four error terms measuring VCR difficulties (eV6-eV7; eV8-eV9) were constrained in efforts to increase model fit. This CFA analysis was conducted in an “accept-

*support*” (p.136, Kline, 2005) context, where the null hypothesis represented the hypothesized measurement model (Steiger & Fouladi, 1997) (see Figure 21).

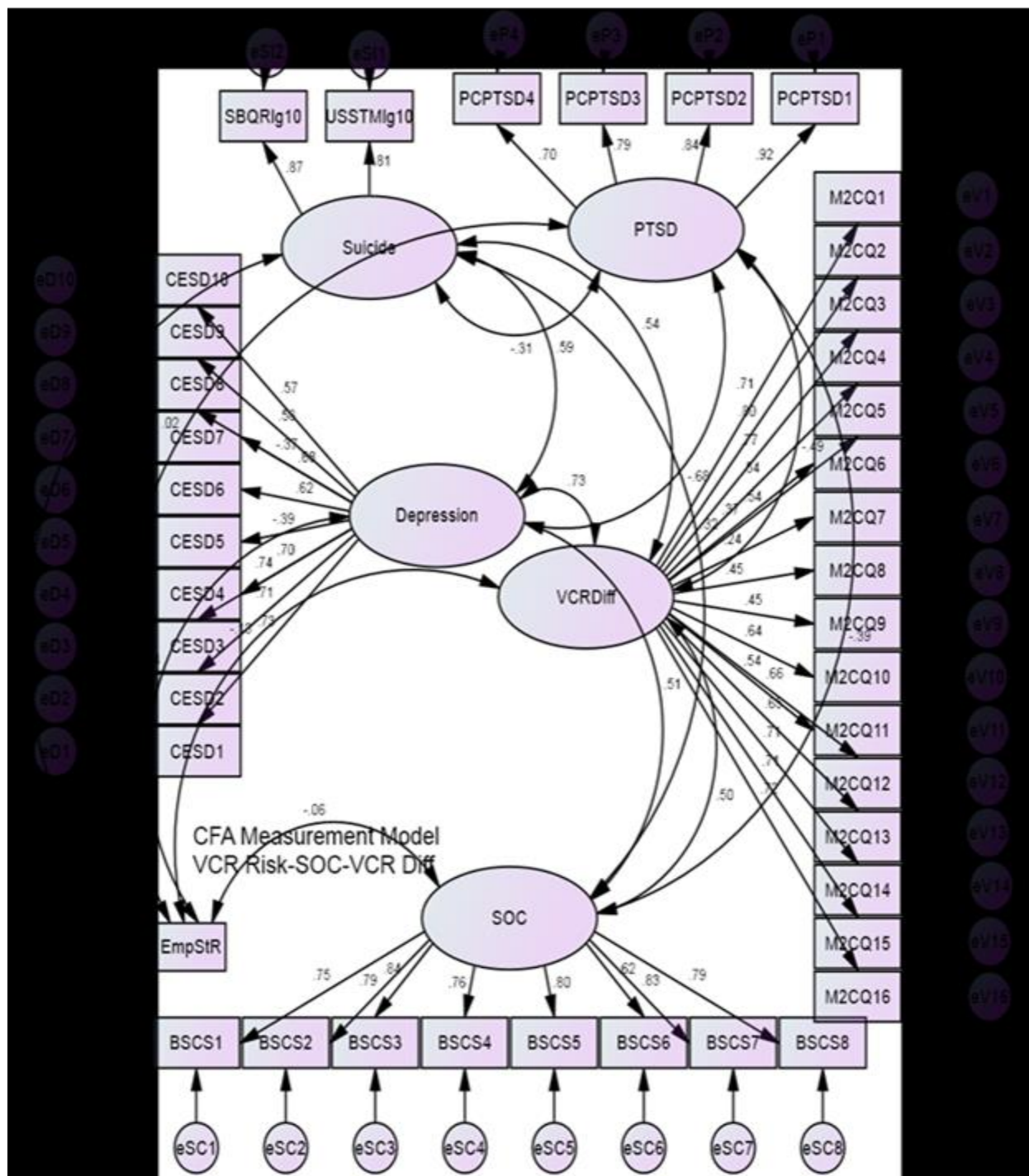


Figure 21. Estimated Measurement Model Testing the Relationship Between Risk Factors for VCR, SOC, and VCR Difficulties. Model fit indices:  $\chi^2$  (761, N=131) = 1480.072,  $p = .000$  RMSEA = .085, PCLOSE = .000 TLI = .721 and CFI = .754. All estimates are standardized.

*Measurement model estimation.* Results of the CFA on this original model indicate that the model does not fit the data very well  $\chi^2$  (761 df  $N=131$ ) = 1480.072,  $p = .000$  RMSEA = .085, PCLOSE = .000 TLI = .721, and CFI = .754 (Hu & Bentler, 1999; Kline, 2005). All the loadings of the observed variables on the latent variables were statistically significant ( $p < .001$ ). The factor loading between the construct of depression symptoms and the construct of SOC was statistically significant ( $r = .215, p < .001$ ) as was the factor loading between the construct of depression symptoms and the construct of VCR difficulties ( $r = .315, p < .001$ ). In addition to this, the factor loading between the construct of PTSD symptoms and the construct of SOC was statistically significant ( $r = -.100, p < .001$ ) as was the factor correlation between the constructs of PTSD symptoms and that of VCR difficulties ( $r = -.129, p < .001$ ). The factor loading between the construct of suicidal ideation and that of VCR difficulties was also statistically significant ( $r = .064, p < .001$ ). Lastly, a zero-order factor correlation between SOC and VCR difficulties was statistically significant ( $r = .296, p < .001$ ). All parameter estimates of this measurement model are presented below in Table 14. Standardized estimates are represented in Figure 21.

Table 14. Parameter Estimates in the Measurement Model VCR Risk Factors-SOC-VCR Difficulties

<i>Latent Variable</i>	<i>Observed Variable</i>	B	$\beta$	<i>S.E.</i>	<i>C.R.</i>
Depression	CESD1	1.00	.729		
	CESD2	1.039	.709	.137	7.564 ***
	CESD3	1.251	.740	.158	7.904 ***
	CESD4	1.030	.696	.138	7.472 ***
	CESD5	-.765	-.384	.187	-4.103 ***
	CESD6	.895	.618	.136	6.567 ***
	CESD7	1.376	.683	.189	7.289 ***
	CESD8	-.635	-.363	.165	3.847 ***
	CESD9	.938	.589	.153	6.125 ***
	CESD10	.839	.569	.135	6.047 ***
PTSD	PTSD1	1.302	.925	.140	9.292 ***
	PTSD2	1.192	.842	.138	8.661 ***
	PTSD3	1.154	.793	.141	8.184 ***
	PTSD4	1.00	.698		
Suicidal Ideation	USSTM1	.755	.812	.111	6.792 ***
	SBQR1	1.00	.873		
SOC	BSCS1	1.107	.754	.122	9.085 ***
	BSCS2	1.113	.786	.117	9.520 ***
	BSCS3	1.073	.840	.102	10.470 ***
	BSCS4	1.152	.763	.102	9.215 ***
	BSCS5	1.089	.795	.112	9.720 ***
	BSCS6	.758	.618	.106	7.130 ***
	BSCS7	1.080	.830	.105	10.279 ***
	BSCS8	1.00	.793		
VCR Difficulties	M2CQ1	1.00	.712		
	M2CQ2	1.239	.795	.144	8.589 ***
	M2CQ3	1.294	.771	.155	8.338 ***
	M2CQ4	.692	.540	.119	5.828 ***
	M2CQ5	.814	.538	.140	5.813 ***
	M2CQ6	.760	.372	.189	4.015 ***
	M2CQ7	.539	.242	.207	2.602
	M2CQ8	.983	.449	.203	4.855 ***
	M2CQ9	.819	.452	.168	4.881 ***
	M2CQ10	.822	.636	.120	6.855 ***
	M2CQ11	.740	.544	.126	5.864 ***
	M2CQ12	.976	.665	.136	7.169 ***
	M2CQ13	1.374	.646	.198	6.952 ***
	M2CQ14	1.064	.711	.140	7.591 ***
	M2CQ15	1.353	.706	.178	7.605 ***
	M2CQ16	1.185	.724	.152	7.773 ***

\*\*\* $p < .001$

*Model trimming and building.* Kline (2005) describes *model trimming* as the elimination of paths in a theoretically-built model. Conversely, *model building* involves adding paths to a simplified model. The goal of these processes is to create a model that fits the data. Model fit indices resulting from the measurement model suggested a need to adjust the model in efforts to develop a model that would better fit the data. Since model trimming resulted in lower model fit indices, no deletions of paths occurred during this process (see Figure 21).

### **Hypothesis Testing**

Based on the SEM literature reviewed (Brown & Cudeck, 1993; Byrne, 2010; Hu & Bentler, 1999; Kline, 2005) and the results reported thus far, a more conservative path analysis was chosen as an alternative to the original SEM plan. Specifically, these reasons included: (1) the violation of multivariate normality found assessments of key variables; (2) the inability to use Asymptotic-Free Distribution Free method of estimation with this small sample size; (3) measurement problems found in the CESD-10 and the M2CQ (among this sample population); and, (4) CFA model fit indices suggesting “poor-fit” (Kline, 2005, p.139).

Results from the simple path analysis suggested that the SOC mediation model fit the data poorly ( $\chi^2 = 46.016$  (4 df,  $N = 131$ ),  $p = .000$ , CFI = .744, RMSEA = .284, PCLOSE=.000, TLI = -.345) (Brown & Cudeck, 1993; Hu & Bentler, 1999, Kline, 2005) (see Figure 22). Despite this limitation, three paths in the model were found to be statistically significant. The direct path from depression symptoms to SOC was statistically significant ( $B = -.407$  ( $\beta = -.278$ ),  $SE = .154$ ,  $p = .008$ ). The path from suicidal ideation to SOC was statistically significant ( $B = 1.027$  ( $\beta = .207$ ),  $SE = .443$ ,  $p = .020$ ). The path from SOC to VCR difficulties was statistically significant ( $B = .974$  ( $\beta = .488$ ),  $SE = 6.039$ ,  $p < .001$ ) (see Table 15). The total and direct effects



of the path from depression to SOC were the same (-.278). In addition to this, the total effect of the path from suicidal ideation to SOC was (.207) compared to the direct effect, which was (1.027) (see Table 16). Lastly, the total and direct effects of the path from SOC to VCR difficulties were the same (.488).

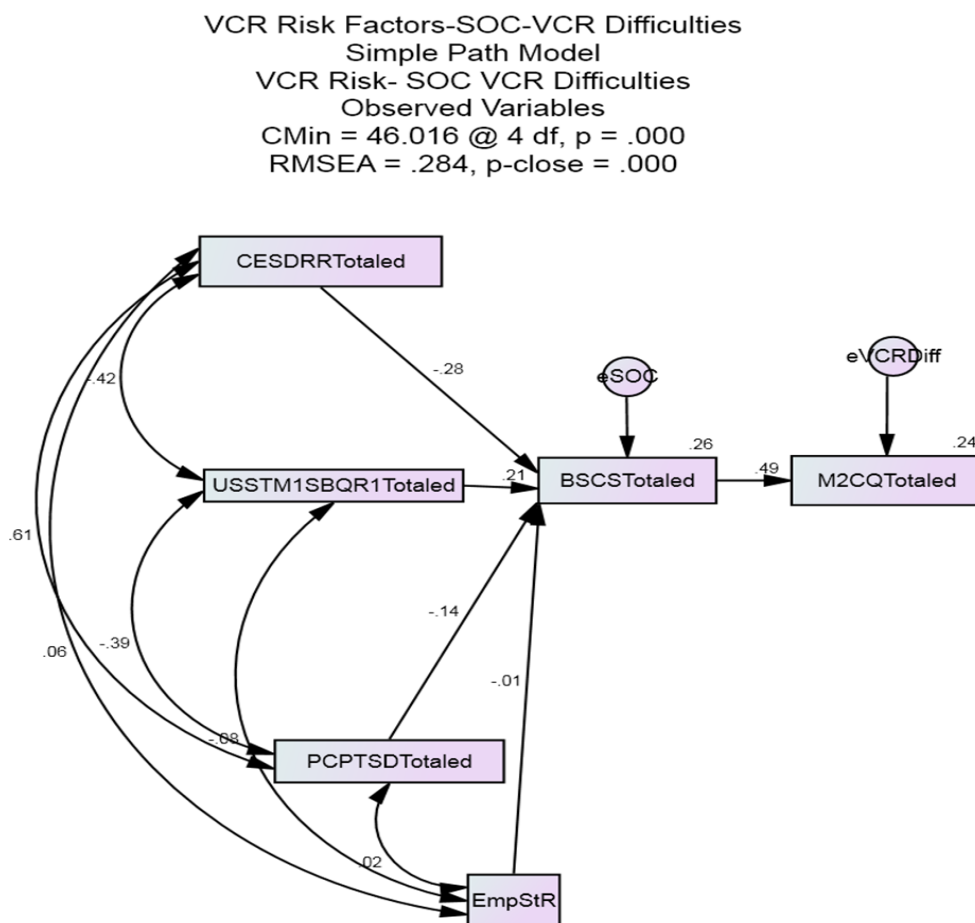


Figure 22. VCR Risk Factors-SOC-VCR Difficulties Simple Path Model Results ( $\chi^2 = 46.016$  (4,  $N = 131$ ),  $p = .000$ , CFI = .744, RMSEA = .284, PCLOSE=.000, TLI = -.345)

Note: All estimates are standardized

Table 15. Parameter estimates from the SOC mediation model for the effect VCR Risk Factors on VCR Difficulties

<i>Path</i>	<i>B</i>	<i>β</i>	<i>S.E.</i>	<i>C.R.</i>
Depression Symptoms→SOC	-.407	-.278	.154	-2.646**
Suicidal Ideation→SOC	10.027	.207	.443	2.321*
PTSD Symptoms→SOC	-.532	-.137	.400	-.1329
Employment Status→SOC	-.103	-.014	.578	-.178
SOC→VCR Difficulties	.974	.488	.161	6.039***

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Table 16. Effect decomposition of the SOC mediation model for the effect of VCR Risk Factors (depression symptoms, suicidal ideation, PTSD symptoms, and employment status) on VCR Difficulties

<i>Path</i>	<i>Total Effects</i>	<i>Direct Effects</i>	<i>Indirect Effects</i>
Depression Symptoms→SOC	-.278*	-.278*	–
Suicidal Ideation→SOC	.207*	1.027*	-.82
PTSD Symptoms→SOC	-.137	-.137	–
Employment Status→SOC	-.014	-.014	–
SOC→VCR Difficulties	.488***	.488***	–

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

Note: All estimates are standardized.

## Chapter 5: Discussion

Results from this study suggest that there is not enough evidence to support the hypothesis that Sense of Community (SOC) mediates the relationship between risk factors (depression, suicidal ideation, PTSD, & employment status) and Veteran Community Reintegration (VCR) difficulties. This is concluded from results of the poor-fitting model fit indices in the path analysis ( $\chi^2 = 46.016$  (df = 4,  $N = 131$ ),  $p = .000$ , CFI = .744, RMSEA = .284, PCLOSE=.000, TLI = -.345).

This is the first known data-based study to test the theoretical underpinnings of SOC as a mediating factor on VCR difficulties (Bowen, 2000; Hollingsworth, 2011). This study contributes to the existing literature by providing a measurement model of scales with high internal consistency (M alpha coefficient = .86) and some construct validity (see Table 12) for future research to assess salient VCR issues such as suicidal ideation, depression symptoms, PTSD symptoms and employment status. This study provides a basis for replication of findings in addition to pointing out specific measurement and estimation issues that need to be addressed in future studies.

There are a few plausible reasons for the VCR risk factors (suicidal ideation, depression symptoms, PTSD symptoms, and employment status)-SOC-VCR difficulties model to result in poor-fitting indices. First, the amount of missing data, method of data imputation (ML) and violation of multivariate normality may have resulted in a poor-fitting model. Second, the measurement model revealed issues with construct validity on the M2C-Q (Sayer et al., 2010) and CESD-10 (Radloff, 1977; Zhang, 2012) scales with scores from this dataset.

Third, the answers to subsequent research questions suggest that some of this model may fit the dataset, but not the model in its entirety. Likewise, a fully-mediated model may be too strong of a model to fit this dataset. It may be that SOC *partially* mediates the relationship between *some* VCR risk factors (depression symptoms, suicidal ideation, PTSD symptoms, or unemployment) and VCR difficulties. A post hoc analysis may facilitate a discussion as to whether the model should be modified in this manner for future research.

Finally, sampling strategy (purposive) and sample size ( $N=131$ ) also suggests that there are threats to internal and external validity. Findings from this study are not generalizable to the entire U.S. veteran population. Future research should seek to replicate the study of these issues with larger sample sizes from various parts of the country in efforts to increase the external validity of findings.

Regarding the first research question, results from this study suggest that SOC does not mediate the relationship between PTSD symptoms and VCR difficulties (controlling for depression, suicidal ideation and unemployment). Specifically, the path from PTSD symptoms to SOC was not statistically significant ( $B = -.534$  ( $\beta = -.137$ ),  $SE = .400$ ,  $p = .184$ ). Even though the path from SOC to VCR difficulties was statistically significant ( $B = .974$  ( $\beta = .488$ ),  $SE = 6.039$ ,  $p < .001$ ). The total and direct effects of the path from PTSD symptoms to SOC were the same ( $-.137$ ). Lastly, the total and direct effects of the path from SOC to VCR difficulties were the same ( $.488$ ). Findings from this study suggest that factors other than SOC may mediate the relationship between PTSD symptoms and VCR difficulties, due to the fact that previous research suggests an association with PTSD symptoms and VCR difficulties (Sayer et al., 2011). Future research should first attempt address measurement issues in the current study then

replicate or nullify findings from this study prior to seeking alternative explanations, given that previous literature suggests this possible mediation effect of SOC on VCR difficulties (Bowen, 2000; Hollingsworth, 2011). As noted in the above section, a partial mediation relationship may take into consideration other confounding variables that could be accounted for in post hoc analyses.

The second research question asked if SOC mediated the relationship between depression symptoms and VCR difficulties (controlling for PTSD symptoms, suicidal ideation and unemployment). Results suggest that SOC does indeed mediate this relationship (given study limitations). Specifically, the path from depression symptoms to SOC was statistically significant ( $B = -.407$  ( $\beta = -.278$ ),  $SE = .154$ ,  $p = .008$ ). The path from SOC to VCR difficulties was statistically significant ( $B = .974$  ( $\beta = .488$ ),  $SE = 6.039$ ,  $p < .001$ ). The total and direct effects of the path from depression to SOC were the same ( $-.278$ ). Results suggesting that as depression symptoms go up, SOC goes down are consistent with theory reviewed in this area (Bowen, 2000; Hollingsworth, 2011). However, results suggesting that as SOC goes up, VCR difficulties go up appear to be counterintuitive and conflicting with previous literature. Possible explanations for this include limitations to this study mentioned in previous sections (threats to internal and external validity, construct validity issues, and model fit issues).

This is the first known data-based study to utilize the CESD (Raldloff, 1977) in assessing for depression symptoms among Iraq and Afghanistan veterans (64.1% of the sample population consisted of veterans from Post 9/11 & Gulf War). Results from this research highlight the need for future research to focus on addressing the issue of depression symptoms among this population. Future research should also seek to substantiate results indicating that as depression

symptoms decrease, SOC increases and clarify issues surrounding the direction of the relationship between SOC and VCR difficulties. Social work researchers have an obligation to take into account the strengths and risk factors in the military culture when doing research with this population and work towards provide evidenced-based (clinical or community) practice interventions for veterans reporting depression symptoms (Hollingsworth, 2011). Social work practitioners working with the military population, on the other hand have the opportunity to collect and provide a rich amount of data to inform research in this area.

The third research question in this study asked if SOC mediated the relationship between suicidal ideation and VCR difficulties controlling for (depression symptoms, PTSD symptoms, and unemployment). Results indicated that SOC does mediate this relationship. Specifically, the path from suicidal ideation to SOC was statistically significant ( $B = 1.027(\beta = .207)$ ,  $SE = .443$ ,  $p = .020$ ). A positive relationship between SOC and suicidal ideation means that as suicidal ideation goes up, so does a veteran participant's SOC. The path from SOC to VCR difficulties was statistically significant ( $B = .974$  ( $\beta = .488$ ),  $SE = 6.039$ ,  $p < .001$ ). As mentioned before, this means that as SOC goes up, so does VCR difficulties. The total effect of the path from suicidal ideation to SOC was (.207) compared to the direct effect, which was (1.027). Lastly, the total and direct effects of the path from SOC to VCR difficulties were the same (.488) (see Table 16). Both paths go in the opposite direction of what one would expect based on previous literature discussed in this study (Bowen, 2000; Hollingsworth, 2011). Possible explanations for this include limitations to this study mentioned in previous sections (threats to internal and external validity, construct validity issues, and model fit issues). This is the second known research to

address suicidal issues with a sample that includes veterans from the wars in Iraq and Afghanistan (Osman et al., 2001).

Results from the current research, the high suicide rates among active military members, and the most recent Fort Hood shooting/suicide attempt (Alcindor, 2014; Williams, 2012) highlight the need for future research to provide evidence-based (clinical and/or community) interventions that assist current and former military service members in coping with thoughts of in a positive manner. Future research should also seek to disentangle the direction of association found in the mediating SOC relationship between suicidal ideation and VCR difficulties by addressing study limitations and replicating/nullifying findings and then clarifying issues the counterintuitive findings. Social work researchers have an obligation to provide evidenced-based practice interventions to prevent future tragedies. At this point in with the research among military service members and veterans from the wars in Iraq and Afghanistan, social work practitioners have the opportunity to collect and provide a rich amount of data to inform the needed research.

The last research question in this study asked if SOC mediate the relationship between unemployment and VCR difficulties (controlling for depression, suicidal ideation, and unemployment). Results from this study suggest that SOC does not mediate this relationship. Specifically, the path from employment status to SOC was not statistically significant ( $B = -.103$  ( $\beta = -.014$ ),  $SE = .578$ ,  $p = .859$ ). Even though the path from SOC to VCR difficulties was statistically significant ( $B = .974$  ( $\beta = .488$ ),  $SE = 6.039$ ,  $p < .001$ ). The total and direct effects of the path from suicidal to SOC were the same (.207). Lastly, the total and direct effects of the path from SOC to VCR difficulties were the same (.488) (see Table 16). Findings from this study

suggest that factors other than SOC may mediate the relationship between employment status and VCR difficulties, due to the fact that previous research suggests an association with PTSD symptoms and VCR difficulties (Sayer et al., 2011). Future research should first attempt address measurement issues in the current study and then replicate or nullify findings from this study prior to seeking alternative explanations, given that previous literature suggests this possible mediation effect of SOC on VCR difficulties (Bowen, 2000; Hollingsworth, 2011). As noted in earlier, a partial mediation relationship may take into consideration other confounding variables that could be accounted for in post hoc analyses.

The recent shooting (April 2, 2014) by Specialist Ivan Lopez, who “was being treated for depression and anxiety before he killed three people and wounded 16 others” (Alcindor, para. 1, 2014). Mental health professional (s) treating this soldier were in the process of ruling out a PTSD diagnosis prior to the mass shooting and suicide attempt incident. USA Today's Gregg Zoroya suggests that job-seeking veterans may face increased stigma and discrimination as a result of this incident. This tragic incident, and its negative consequences on other veterans and military service members emphasizes the need for future research to continue investigating the key issues in the current research (depression symptoms, suicidal ideation, PTSD symptoms, employment status, SOC among veterans and VCR difficulties) in order to provide evidenced based interventions that may prevent this type of tragedy and reduce future discrimination of job-seeking veterans in our communities.

From a practice perspective, findings from this study emphasize the need for more data-based research to test the effectiveness of SOC interventions currently used and promoted as an intervention in to assisting military service members as they return to their communities (Amdur



et al., 2011; Bowen, 2000; Hollingsworth, 2011). From a policy perspective, social workers should advocate that political barriers be removed and resources be provided for ethical research studies surrounding these issues to be expedited among the military and veteran population. Social work researchers also have an obligation to conduct future research on employment challenges faced by returning military veterans. Data from future research can be used to inform clinical practice with military service members and veterans struggling with issues of depression, suicidal ideation, and PTSD and it can be used to advocate for policy changes that will assist veterans in having a living-wage employment in civilian society without having to face the added stigma of mental illness (NASW, 2008).

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**Appendix**

## Acronyms

Addition Severity Index (ASI)

American Community Survey (ACS)

American Indian Vietnam Veterans Project (AIVVP)

American Legion (AL)

American Psychological Association (APA)

American Recovery and Reinvestment Act (ARRA)

Analysis of Covariance (ANCOVA)

Analysis of Variance (ANOVA)

Armed Forces Qualification Test Percentiles (AFQT)

Army Post-Deployment Reintegration Scale (APDRS)

Behavioral Risk Factor Surveillance Survey (BRFSS)

Brief Symptom Inventory (BSI)

Canadian Forces (CF)

Clinically Administered PTSD Scale (CAPS)

Combat Exposure Scale (CES)

Community Family Therapy (CFT)

Compensated Work Therapy (CWT)

Confirmatory Factor Analysis (CFA)

Congressional Budget Office (CBO)

Congressional Research Services (CRS)

Continuity of Care (COC)

Defense and Veterans Brain Injury Center (DVBIC)

Defense Manpower Data Center (DMDC)

Department of Peacekeeping Operations (DPKO)

Differential Item Functioning (DIF)

Disarmament, Demobilization and Reintegration (DDR)

“Don’t Ask Don’t Tell” (DADT)

Dyadic Adjustment Scale (DAS)

Educational and Biographical Information Survey (EBIS)

Exploratory Factor Analysis (EFA)

Fear of Intimacy Scale (FIS)

Fiscal Year (FY)

Generalized Estimating Equation (GEE)

Generalized Linear Regression (GLM)

Global Severity Index (GSI)

Global War on Terrorism (GWOT)

Government Accountability Office (GOA)

Grand Army of the Republic (GAR)

Hierarchical Linear Modeling (HLM)

Improvised Explosive Devices (IEDs)

Individual Ready Reserve (IRR)

Intensity of Care (IOC)

Iraq and Afghanistan Veterans of America (IAVA)



Legal Information Institute (LII)

Lesbian, Gay, Bi-sexual, Transgender (LGBT)

Lesbian, Gay, Bi-sexual, Transgender, and Queer & Questioning (LGBTQ)

Marital Status Inventory (MSI)

Mental Competent Summary (MCS)

Mental Health Advisory Team (MHAT)

Military Sexual Trauma (MST)

Military to Civilian Questionnaire (M2CQ)

Mississippi Scale for Combat-Related PTSD (MISS)

Mobile Vet Center (MVC)

Modified Continuity Index (MCI)

National Association of Social Workers (NASW)

National Cemetery System (NCS)

National Coalition for Homeless Veterans (NCHV)

National Death Index (NDI)

National Vietnam Veterans Readjustment Survey (NVVRS)

Northeast Program Evaluation Center (NEPEC)

Odds Ratios (ORs)

Office of Human Resources and Administration (OHRA)

Office of Inspector General (OIG)

Operation Continue Hope (OCH)

Operations Enduring Freedom, Operation Iraqi Freedom and Operation New Dawn

(OEF/OIF/OND)

Operations Enduring Freedom (OEF)

Operation Iraqi Freedom (OIF)

Operation New Dawn (OND)

Operation Restore Hope (ORH)

Operations Enduring Freedom (OEF)

Persistent Post Concussive Symptoms (PPCS).

Post-Deployment Health Reassessment (PDHRA)

Post-traumatic Stress Disorder (PTSD)

Primary Care PTSD Screen (PC-PTSD)

PTSD Checklist, Military Version, (PCL-M)

Public Broadcasting Service (PBS)

Race-Related Stressor Scale (RRS)

Relationship Problem Scale (RPS)

Sense of Community (SOC)

Service members Legal Defense Network (SLDN)

Spinal Cord Injury (SCI)

Structural Equation Modeling (SEM)

Student Veteran's Association (SVA)

Tigray People's Liberation Front (TPLF)

Transition Assistance, Advisors (TAA)

Trauma Questionnaire (TQ)

Traumatic Brain Injury (TBI)

United Nations (UN)

United States Bureau of Labor and Statistics (USBLS)

U.S. Census Bureau (USCB)

United States Department of Defense (DoD)

United States Department of Veterans Affairs (USDVA)

United States Interagency Council on the Homeless (USICH)

Veterans Administration (VA)

Veterans Benefits Administration (VBA)

Veteran Community Reintegration (VCR)

Veterans Health Administration (VHA)

Veterans of Foreign Wars (VFW)

Vietnam Era Veteran's Adjustment Survey (VEVAS)

Waldo's Workplace Heterosexual Experience Questionnaire (WWHEQ)

West Haven Homecoming Stress Scale (WHHSS)

Women's War Stress Inventory (WWSI)

Workplace Sexual Identity Management Measure (WSIMM)

## Veteran Community Reintegration Survey

(Thomas & Bowie, 2012)

### Demographic information (Please check or write your responses).

1. Please indicate your age: \_\_\_\_\_
2. Please indicate the gender you most identify with
  - A. Male
  - B. Female
  - C. Other\_\_\_\_\_
3. Please indicate the race/ethnicity you most identify with
  - A. African American/ Black
  - B. American Indian or Alaska Native
  - C. Asian
  - D. Pacific Islander
  - E. Latino/Hispanic
  - F. White, not of Hispanic origin
  - G. Biracial\_\_\_\_\_
  - H. Other\_\_\_\_\_
4. Please indicate where you were born:
  - A. U.S.
  - B. Other\_\_\_\_\_
5. Please indicate how long have you resided in the United States (in years): \_\_\_\_\_
6. Please indicate if English is your first language:
  - A. Yes
  - B. No                      Other first language:\_\_\_\_\_
7. Please select your religious preference:
  - A. Buddhism
  - B. Christian
  - C. Confucianism
  - D. Hinduism
  - E. Islam
  - F. Judaism
  - G. Mormon
  - H. Taoism
  - I. None
  - J. Other\_\_\_\_\_
8. Please indicate how often you participate in religious functions within your community (e.g. church, synagogue, mosque, temple etc.)

- A. Never
  - B. Once/ twice a year
  - C. Once a month
  - D. Once/more than once a week
  - E. Other \_\_\_\_\_
9. Please indicate the type of community you feel most connected to (Fellin, 2000):
- A. Locality-based community(e.g. metropolitan, municipal, neighborhood)
  - B. Communities of identification and interest (e.g. veteran association, religious group, ethnic group etc.)
  - C. Virtual community (e.g. Facebook, online veteran association etc.)
  - D. Other \_\_\_\_\_
10. Please indicate the general location of your community
- A. Urban
  - B. Suburban
  - C. Rural
  - D. Knoxville, Tennessee
  - E. Chattanooga, Tennessee
  - F. Other \_\_\_\_\_
11. Do you feel like your local community is generally trust-worthy (police, neighbors, co-workers etc.)?
- A. Strongly agree
  - B. Agree
  - C. Neutral
  - D. Disagree
  - E. Strongly Disagree
  - F. Other \_\_\_\_\_
12. Please select your relationship status
- A. Married
  - B. Single
  - C. Divorced
  - D. Widowed
  - E. Cohabiting
  - F. Other \_\_\_\_\_
13. Please indicate how often you spend 'quality time' with a close friend of significant other
- A. Once a week
  - B. More than once a week
  - C. Once a month
  - D. Other \_\_\_\_\_
14. Please indicate how often you participate in leisure/recreational activities
- A. Once a week

- B. More than once a week
  - C. Once a month
  - D. Other\_\_\_\_\_
15. Please select your parental status:
- A. Parent
  - B. Non-parent
16. Please indicate if you consider yourself homeless
- A. Yes, if yes, where do you spend your nights (shelter, family, parks etc.) \_\_\_\_\_
  - B. No
17. Please list the number of people living in your household (including yourself):\_\_\_\_\_
18. Please select your average annual household income:
- A. Less than \$30,000
  - B. \$30,000 - \$49,999
  - C. \$50,000 - \$99,000
  - D. \$100,000 - \$149,999
  - E. \$150,000 - \$199,999
  - F. \$200,000 - \$249,999
  - G. \$250,000 or more
  - H. I don't know
19. Please indicate if you have internet access:
- A. Yes, if so, is it at your place of residence? Yes.\_\_\_\_ No.\_\_\_\_
  - B. No
20. Please indicate if you have access to transportation:
- A. Yes, if so, do you own a vehicle? Yes. \_\_\_\_No. \_\_\_\_
  - B. No
21. Please select your current student status:
- A. Full-time student
  - B. Part-time student
  - C. Not a student
22. Please select your highest level of education:
- A. Below high school/GED
  - B. GED
  - C. High school
  - D. Undergraduate
  - E. Graduate
  - F. Doctoral
  - G. Professional (JD, MD, etc.)
  - H. Other
23. Please indicate if your education is being supplemented through the GI Bill
- A. Yes

- B. No
- C. I don't know
- 24. Please select your current employment status:
  - A. Full-time employed
  - B. Part-time employed
  - C. Not employed
- 25. Please indicate if your income is being supplemented through unemployment compensation
  - A. Yes
  - B. No
  - C. I don't know
- 26. Please indicate if you are a U.S. veteran
  - A. Yes
  - B. No

***If you are a U.S. veteran, thank you so much for your dedication, sacrifice, and service to our country. In efforts to assist fellow veterans, please take a few minutes to fill out this survey. As a token of our gratitude and appreciation for your help, you will be given a gift certificate when you complete this survey.***

- 27. Please indicate if this Vet Fair has been helpful to you
  - A. Very helpful
  - B. Somewhat helpful
  - C. I am not sure yet
  - D. Not helpful
  - E. Not helpful at all
  - F. Other
- 28. Please indicate if you would like to see follow-up activities to help you meet your career/educational/economic/health goals
  - A. Yes, if so, Resume Workshop\_\_\_ Interview Workshop\_\_\_ Social Functions with other Veterans \_\_\_ Other \_\_\_\_\_
  - B. No
- 29. Please indicate what era you served in the U.S. military
  - A. Post 9-11 Iraq/Afghanistan Wars
  - B. Gulf War Era
  - C. Post-Cold War Era
  - D. Cold War Era
  - E. Post-Vietnam War Era
  - F. Vietnam War Era
  - G. Other \_\_\_\_\_
- 30. Please indicate if you have been deployed:

- A. Yes, if yes, How many times\_\_\_\_\_
- B. No
31. Please indicate if you were deployed to a combat-zone
- A. Yes, if yes, Which one\_\_\_\_\_
- B. No
32. Please indicate if you have been in a combat situation
- A. Yes, if yes, How many times\_\_\_\_\_
- B. No
33. Please indicate if you have experienced any other service-related trauma:
- A. Yes, if yes, MST \_\_\_\_\_, TBI\_\_\_\_\_, PTSD\_\_\_\_\_, Other(please specify)\_\_\_\_\_
- B. No
34. Please indicate if you were wounded during service?
- A. Yes, if yes, Mental \_\_\_\_\_, Physical\_\_\_\_\_, Other\_\_\_\_\_
- B. No
35. Please indicate if you have any service-connected disabilities
- A. Yes , If yes, Mental \_\_\_\_\_, Physical\_\_\_\_\_, Other\_\_\_\_\_
- B. No
36. Please indicate if you have ever received services from the VA
- A. Yes, if yes, are you still receiving services? Yes.\_\_\_\_ No.\_\_\_\_\_
- B. No

### **Military to Civilian Questionnaire (M2CQ) (Sayer et al. 2010)**

These questions ask about how you have been doing. Please read each question and then rate the amount of difficulty you have been having over **the past 30 days.**

Please indicate if **over the past 30 days, you have had difficulty with...**

37. Dealing with people you do not know well (such as acquaintances or strangers)
- A. No Difficulty
- B. A little Difficulty
- C. Some Difficulty
- D. A lot of Difficulty
- E. Extreme Difficulty
- F. Does not Apply
38. Making new friends
- A. No Difficulty
- B. A little Difficulty
- C. Some Difficulty
- D. A lot of Difficulty



- E. Extreme Difficulty
  - F. Does not Apply
39. Keeping up friendships with people who have **no** military
- A. No Difficulty
  - B. A little Difficulty
  - C. Some Difficulty
  - D. A lot of Difficulty
  - E. Extreme Difficulty
  - F. Does not Apply
40. Keeping up friendships with people who **have** military experience (including friends who are active duty or veterans)?
- A. No Difficulty
  - B. A little Difficulty
  - C. Some Difficulty
  - D. A lot of Difficulty
  - E. Extreme Difficulty
  - F. Does not Apply
41. Getting along with relatives (such as siblings, parents, grandparents, in laws and children not living at home)
- A. No Difficulty
  - B. A little Difficulty
  - C. Some Difficulty
  - D. A lot of Difficulty
  - E. Extreme Difficulty
  - F. Does not Apply
42. Getting along with your spouse or partner (such as communicating      doing things together, enjoying his or her company)
- A. No Difficulty
  - B. A little Difficulty
  - C. Some Difficulty
  - D. A lot of Difficulty
  - E. Extreme Difficulty
  - F. Does not Apply
43. Getting along with your child or children (such as communicating, doing things together, enjoying his or her company)
- A. No Difficulty
  - B. A little Difficulty
  - C. Some Difficulty
  - D. A lot of Difficulty
  - E. Extreme Difficulty
  - F. Does not Apply

44. Finding or keeping a job (paid or non-paid or self-employment)
- A. No Difficulty
  - B. A little Difficulty
  - C. Some Difficulty
  - D. A lot of Difficulty
  - E. Extreme Difficulty
  - F. Does not Apply
45. Doing what you need to do for work or school
- A. No Difficulty
  - B. A little Difficulty
  - C. Some Difficulty
  - D. A lot of Difficulty
  - E. Extreme Difficulty
  - F. Does not Apply
46. Doing what you need to do for work or school
- A. No Difficulty
  - B. A little Difficulty
  - C. Some Difficulty
  - D. A lot of Difficulty
  - E. Extreme Difficulty
  - F. Does not Apply
47. Taking care of your chores at home (such as housework, yard work, cooking, cleaning, shopping, errands)
- A. No Difficulty
  - B. A little Difficulty
  - C. Some Difficulty
  - D. A lot of Difficulty
  - E. Extreme Difficulty
  - F. Does not Apply
48. Taking care of your health (such as exercising, sleeping, bathing, eating well, taking medications as needed)
- A. No Difficulty
  - B. A little Difficulty
  - C. Some Difficulty
  - D. A lot of Difficulty
  - E. Extreme Difficulty
  - F. Does not Apply
49. Enjoying or making good use of free time
- A. No Difficulty
  - B. A little Difficulty
  - C. Some Difficulty

- D. A lot of Difficulty
  - E. Extreme Difficulty
  - F. Does not Apply
50. Taking part in community events or celebrations (for example festivals, PTA meetings, religious or other activities)
- A. No Difficulty
  - B. A little Difficulty
  - C. Some Difficulty
  - D. A lot of Difficulty
  - E. Extreme Difficulty
  - F. Does not Apply
51. Feeling like you belong in "civilian" society
- A. No Difficulty
  - B. A little Difficulty
  - C. Some Difficulty
  - D. A lot of Difficulty
  - E. Extreme Difficulty
  - F. Does not Apply
52. Confiding or sharing personal thoughts and feelings
- A. No Difficulty
  - B. A little Difficulty
  - C. Some Difficulty
  - D. A lot of Difficulty
  - E. Extreme Difficulty
  - F. Does not Apply
53. Finding meaning or purpose in life
- A. No Difficulty
  - B. A little Difficulty
  - C. Some Difficulty
  - D. A lot of Difficulty
  - E. Extreme Difficulty
  - F. Does not Apply

**Primary Care PTSD Screen (PC-PTSD) (Ouimette and Kimerling, 2003)**

In your life, have you ever had any experience that was so frightening, horrible, or upsetting that, in the past month, you:

54. Had nightmares about it or thought about it when you did not want to?
- A. Yes
  - B. No

55. Tried hard not to think about it or went out of your way to avoid situations that reminded you of it?
- A. Yes
- B. No
56. Were constantly on guard, watchful, or easily startled?
- A. Yes
- B. No
57. Felt numb or detached from others, activities, or your surroundings?
- A. Yes
- B. No

**Center for Epidemiologic Studies Short Depression Scale (CES-D 10) (Radloff, 1977; Zhang, 2012)**

Below is a list of some of the ways you may have felt or behaved. Please indicate how often you have felt this way during the past week by checking the appropriate box for each question.

58. I was bothered by things that usually don't bother me.
- A. Rarely or none of the time (less than 1 day)
- B. Some or a little of the time (1-2 days)
- C. Occasionally or a moderate amount of time (3-4 days)
- D. All of the time (5-7 days)
59. I had trouble keeping my mind on what I was doing.
- A. Rarely or none of the time (less than 1 day)
- B. Some or a little of the time (1-2 days)
- C. Occasionally or a moderate amount of time (3-4 days)
- D. All of the time (5-7 days)
60. I felt depressed
- A. Rarely or none of the time (less than 1 day)
- B. Some or a little of the time (1-2 days)
- C. Occasionally or a moderate amount of time (3-4 days)
- D. All of the time (5-7 days)
61. I felt that everything I did was an effort.
- A. Rarely or none of the time (less than 1 day)
- B. Some or a little of the time (1-2 days)
- C. Occasionally or a moderate amount of time (3-4 days)
- D. All of the time (5-7 days)
62. I felt hopeful about the future.
- A. Rarely or none of the time (less than 1 day)
- B. Some or a little of the time (1-2 days)

- C. Occasionally or a moderate amount of time (3-4 days)
- D. All of the time (5-7 days)
63. I felt fearful.
- A. Rarely or none of the time (less than 1 day)
- B. Some or a little of the time (1-2 days)
- C. Occasionally or a moderate amount of time (3-4 days)
- D. All of the time (5-7 days)
64. My sleep was restless.
- A. Rarely or none of the time (less than 1 day)
- B. Some or a little of the time (1-2 days)
- C. Occasionally or a moderate amount of time (3-4 days)
- D. All of the time (5-7 days)
65. I was happy.
- A. Rarely or none of the time (less than 1 day)
- B. Some or a little of the time (1-2 days)
- C. Occasionally or a moderate amount of time (3-4 days)
- D. All of the time (5-7 days)
66. I felt lonely.
- A. Rarely or none of the time (less than 1 day)
- B. Some or a little of the time (1-2 days)
- C. Occasionally or a moderate amount of time (3-4 days)
- D. All of the time (5-7 days)
67. I could not "get going."
- A. Rarely or none of the time (less than 1 day)
- B. Some or a little of the time (1-2 days)
- C. Occasionally or a moderate amount of time (3-4 days)
- D. All of the time (5-7 days)
- 

**Ultra-Short-Form Suicidal Thinking Measure (modified to one-item) (Nugent, 2005)**

68. I think about committing suicide
- A. None of the time
- B. Very rarely
- C. A little of the time
- D. Some of the time
- E. A good part of the time
- F. Most of the time
- G. All of the time

**Suicide Behavior Questionnaire-Revised (Osman, 1999) (modified to one-item)**

69. How often have you thought about killing yourself in the past year? (check one only)
- A. Never
  - B. Rarely (1 time)
  - C. Sometimes (2 times)
  - D. Often (3-4 times)
  - E. Very Often (5 or more times)

**Brief Sense of Community Scale (Peterson, Speer & McMillan, 2007)**

**How well does each of the following statements represent how you *feel* about your community?**

70. I can get what I need in this neighborhood.
- A. Strongly Agree
  - B. Agree
  - C. Neutral
  - D. Disagree
  - E. Strongly Disagree
71. This neighborhood helps me fulfill my needs.
- A. Strongly Agree
  - B. Agree
  - C. Neutral
  - D. Disagree
  - E. Strongly Disagree
72. I feel like a member of this neighborhood.
- A. Strongly Agree
  - B. Agree
  - C. Neutral
  - D. Disagree
  - E. Strongly Disagree
73. I belong in this neighborhood.
- A. Strongly Agree
  - B. Agree
  - C. Neutral
  - D. Disagree
  - E. Strongly Disagree
74. I have a say about what goes on in my neighborhood.
- A. Strongly Agree
  - B. Agree

- C. Neutral
  - D. Disagree
  - E. Strongly Disagree
75. People in this neighborhood are good at influencing each another.
- A. Strongly Agree
  - B. Agree
  - C. Neutral
  - D. Disagree
  - E. Strongly Disagree
76. I feel connected to this neighborhood.
- A. Strongly Agree
  - B. Agree
  - C. Neutral
  - D. Disagree
  - E. Strongly Disagree
77. I have a good bond with others in this neighborhood.
- A. Strongly Agree
  - B. Agree
  - C. Neutral
  - D. Disagree
  - E. Strongly Disagree

## Vita

Veliska Joy Thomas was born in Malaysia and, lived in India and Thailand before immigrating with her family to Canada and becoming a citizen of that country. She moved to Tennessee at the age of 16 and became inspired to advocate for Civil Rights issues as a result of the racism and segregation she saw in her high school and her new community. In 1997, Ms. Thomas started working on her Bachelor's Degree in Social Work at Southern Adventist University. She connected with social work's history and commitment to work towards social justice through trips to Harlem, ethnic enclaves, and settlement houses in New York City, registering people to vote in Chattanooga's inner city, and her work at Catholic Charities. Her volunteer work with Collegedale Police Department, Tri-Community Fire Department and Hamilton County Juvenile Court, connected her to military and para-military service members, a population which she grew to have a deep respect and passion to advocate for.

After obtaining her Bachelor's degree in 2003, Ms. Thomas followed her connection to law enforcement by pursuing a career as a Corrections Officer at a jail in Chattanooga, Tennessee. In this position, she connected with and continues to immensely respect her fellow officers, many of whom served their country in the National Guard or Reserve on their off days. Additionally, Ms. Thomas found herself being a social worker on the "yard," as she work towards empowering individuals who had been stripped of all their power and so many of their rights. In order to address her concerns on a macro level, Ms. Thomas connected with the local Southeast National Association of Social Worker's (NASW) branch. Encouraged by her mentor Dr. Valerie L. Radu, to move back into the field of social work, Ms. Thomas found herself pursuing her M.S.S.W. at the University Of Tennessee College Of Social Work in 2006.

The summer before starting her course work, Dr. Radu provided Ms. Thomas with the opportunity to serve as a Human Rights Violation Journalist for the Poor People's Economic Human Rights National Truth Commission in Cleveland, Ohio (2006). –This was the beginning of her



understanding of how important social justice research was. During her M.S.W. program, Ms. Thomas collaborated with Dr. Cynthia Rocha and Bethanie Poe, M.S.S.W., addressing political opportunities and barriers in a *Social Work* (2010) publication. Ms. Thomas obtained her Masters of Science in Social Work with a concentration in Management and Community Practice in 2007 from the University of Tennessee's College of Social Work.

Ms. Thomas then went on to work in a rural community mental center in Athens, Tennessee (2007-2009). She was again faced with the inability to help individuals in client status obtain their basic needs in her capacity as a mental health clinician. Again, she addressed these issues from a macro level by being on the leadership team and then becoming Southeast Branch Chair of the Tennessee Chapter's National Association of Social Workers (2008-2010).

In August of 2009, Ms. Thomas became a Clinical Lecturer at the University of Tennessee at Chattanooga's Social Work Department (2007-2009). She enjoyed providing students with similar experiential learning opportunities that inspired her to be a social worker when she was in school. Ms. Thomas also incorporated learning modalities that would engage the millennial generation of students she was honored to teach and learn from. Ms. Thomas also facilitated some very engaging group supervision sessions for field as she engaged students with their "signature pedagogy" (Council on Social Work Education [CSWE], 2008, p. 8).

Ms. Thomas furthered her scholarly experience in social work by entering the doctoral program at the University of Tennessee's College of Social Work. Along with her coursework, her scholarly activities have been further developed through the role of Research Assistant and Research Team Coordinator for Dr. Stan L. Bowie at the University of Tennessee. Specifically, she mentored thesis-seeking MSW students and collaborated with Dr. Bowie and Dr. Ayat J. Nashwan on major research projects related to issues of social justice. Two of these papers were presented at CSWE's Annual Program Meeting. On an international level, Ms. Thomas collaborated with Dr. Nashwan and Dr. Bowie

in presenting a paper on acculturative stress at the “Strangers in New Homelands 2013” Conference, which was held in the University of Manitoba, Canada. Manuscripts of our presentations will be submitted to peer-reviewed journals after our presentations are complete. In her specific area of research, Ms. Thomas collaborated with Dr. Bowie in developing the Veteran Community Reintegration Survey (VCRS, 2012) and presenting program evaluation preliminary findings from Tennessee Veteran’s Business Association (TVBA) Third Annual Business and Education Expo (Thomas & Bowie, 2013) to the East Tennessee Military Affairs Council in December, 2013. In her elective coursework, Ms. Thomas had opportunity to collaborate with Knox County Health Department under the leadership of Dr. Laurie L. Meschke (Department of Public Health, University of Tennessee). This resulted in a community health assessment to address health disparities in the Five Points neighborhood. I had the opportunity to interview key informants who were born in this area prior to the civil-rights movement (Allen, Thomas & Brooks, 2013).

Ms. Thomas’ pedagogy experience at the University of Tennessee included both Master’s and Bachelor’s level classes. Specifically, she was course instructor for Foundation Research (SOCW 519) and Introduction to Social Welfare (SOCW 250). She was also Teaching Assistant under Dr. David Patterson for a Substance Abuse class (SOCW 564).

In her last year of the doctoral program (2013-2014), Ms. Thomas resumed clinical practice as a Licensed Clinical Social Worker at a private mental health agency in her home town of Athens Tennessee. In this capacity, she interacts with veterans, children, and adults in need of so many resources. Ms. Thomas plans to continue her scholarly activity and work with the military/veteran community in efforts to help military service members cope with the stressors they face when returning to their communities.