2021

# Correlation Between Therapeutic Outcomes and Acculturation for Hispanic Veterans With Posttraumatic Stress Disorder

Laura H. Hernandez
*Walden University*

# Walden University

College of Social and Behavioral Sciences

This is to certify that the doctoral dissertation by

Laura H. Hernandez

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Benita Stiles-Smith, Committee Chairperson, Psychology Faculty
Dr. Elizabeth Prial, Committee Member, Psychology Faculty
Dr. Michael Plasay, University Reviewer, Psychology Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
August 2021

Abstract

Correlation Between Therapeutic Outcomes and Acculturation for Hispanic Veterans With Posttraumatic Stress Disorder

by

Laura H. Hernandez

MA, University of Texas, Pan American, 2004

MS, Texas A& M International University, 1995

BS, Laredo State University, 1984

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

August 2021

## Abstract

Hispanic veterans returning from the wars in Iraq and Afghanistan have a higher prevalence of posttraumatic stress disorder (PTSD) than veterans of other ethnicities, and yet little research is devoted to examining this discrepancy. The purpose of this quantitative study, framed by Leininger's cultural care theory, was to examine self-identified outcomes of three treatment modes and how they correlate with acculturation for Hispanic veterans diagnosed with PTSD at outpatient clinics and community outreach agencies. Independent variables were individual and group behavioral therapy, or a combination of both. Dependent variables of PTSD and well-being scores and level of acculturation were examined using data from 77 Hispanic veterans completing the PTSD Checklist for DSM-5, Bidimensional Acculturation Scale, and General Well-Being Scale. A mixed model ANOVA, used to examine severity scores on the PTSD Checklist for DSM-5 and General Well-Being Scale, showed that none of the main effects were statistically significant. Relationships between level of acculturation and PTSD symptom severity, and level of acculturation and general well-being were examined using multiple linear regression. Results suggested a relationship between acculturation and therapy type on PTSD scores, and on General Well-Being Scale scores. This research can bring positive social change in its identification of correlations between therapeutic outcomes and acculturation for Hispanic veterans with PTSD, thus facilitating better assessment and treatment. The findings can also help practitioners recognize the interrelationship between mental health and the cultural values, beliefs, and behaviors of ethnic minorities, as well as help practitioners conceptualize the role that culture plays in mental health.

# Correlation Between Therapeutic Outcomes and Acculturation for Hispanic Veterans With Posttraumatic Stress Disorder

by

Laura H. Hernandez

MA, University of Texas, Pan American 2004

MS, Texas A& M International University, 1995

BS, Laredo State University, 1984

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

August 2021

# Dedication

To my husband Carlos, a sergeant in the U.S. Army, who served our country during Operation Enduring Freedom. Your relentless love and continuous support allowed me the perseverance necessary to complete post-graduate school. I am truly blessed to have you in my life as my best friend, husband and soulmate.

To my daughter, Stephanie, your unconditional love and support, despite your many challenges, has allowed me to pursue my goal. I pray that you continue to allow God to guide you in life as He has so graciously done for me. I love you Steph.

To my mom and dad, who are my angels in heaven. I could have not done this without your instilled values in education and encouragement throughout my life to follow my dreams. You always taught me to put God first in everything, so that he can guide me and crown me with success. Thank you for always being my biggest fans.

Lastly, to all the Hispanic veterans who have proudly served our country. You left your loved ones behind so that we can enjoy freedom. Your participation, contributions and sacrifices can only assist in bridging the gap and helping increase an awareness of the complexities of the interrelationships of mental health and one's cultural values, beliefs and behaviors shared by an ethnic minority. May God continue to protect you and afford mental health providers the different perspectives and insights that may improve treatment planning for Hispanic veterans

"But the one who looks into the perfect law, the law of liberty, and perseveres, being no hearer who forgets but a doer who acts, he will be blessed in his doing" (James 1: 25).

Acknowledgments

As with most of the successes I have had the opportunity to participate throughout my life, this academic journey could not have been accomplished without the assistance, support, and guidance of some very special people. First, and foremost I would like to thank my Lord and Savior, as I firmly believe that I can do all things through Christ who strengthens me.

Next, I would also like to whole-heartedly thank my chair, Dr. Benita Stiles-Smith, for her unconditional patience, dedication, and support throughout this long project. I am appreciative of your willingness to assist me when I needed it the most. Your feedback and guidance encouraged me to continue to work in order to complete this dissertation. I would also like to thank my co-chair Dr. Elizabeth Prial for her assistance and willingness to help me through your feedback and guidance. Thank you for your support, and words of encouragement.

Lastly, to all the Hispanic veterans who have proudly served our country. You left your loved ones behind so that we can enjoy freedom. Your participation, contributions and sacrifices can only assist in bridging the gap and helping increase an awareness of the complexities of the interrelationships of mental health and one's cultural values, beliefs and behaviors shared by an ethnic minority. May God continue to protect you and afford mental health providers the different perspectives and insights that may improve treatment planning for Hispanic veterans.

I would like to thank my husband, Carlos, for his encouragement throughout this long project. Your love, support, the ability to help at home, and dedication to our

marriage during these years is a testament to our marriage vows “for better or worse.” I could not have done this without you.

Table of Contents

List of Tables

List of Figures

# Chapter 1: Introduction to the Study

This study examines treatment outcomes and correlates of acculturation for Hispanic veterans diagnosed with posttraumatic stress disorder (PTSD) at local outpatient clinics and community outreach agencies serving veterans. The wars in Iraq and Afghanistan have become significant events in the lives of men and women who serve in the military. These two wars have demarcated a new era in American history following the attacks of September 11, 2001. Operation Enduring Freedom (OEF) began in 2001 with the goal of capturing Osama bin Laden, dismantling Al Qaeda, and removing the Taliban from power. The war turned into a continuous deployment of U.S. ground troops and forces. Operation Iraqi Freedom (OIF; 2003-2011) embarked with the mission of finding weapons of mass destruction and deposing Saddam Hussein but evolved into an extensive nation-building and counterterrorism operation.

The prolonged conflicts in Iraq and Afghanistan led to the deployment of approximately 2.2 million U.S. military service men and women during OEF and OIF (Fulton, et al., 2015; Institute of Medicine, 2013). Many of these service men and women have returned with deployment-related mental health problems. For those who were exposed to combat in Iraq and Afghanistan, approximately half a million have developed PTSD (Fulton et al., 2015; National Center for PTSD, 2016; Niles et al., 2012). A third of veterans who are receiving treatment served in numerous deployments (National Center for PTSD, 2016) which increases the risk for PTSD (Xue et al., 2015).

## Background of the Problem

According to the U.S. Census (2016), Hispanics are currently the largest minority group in the United States. They are also reported to attain lower levels of education, experience higher levels of poverty, have lower socioeconomic status and higher rates of poverty, and earn lower wages than is average in the United States (American Psychological Association, 2017). Much like other minority populations, Hispanics have a history of serving in the military (Pittman, 2014). The literature indicates that Hispanics have served in the U.S. military since 1812 and continue to actively serve in today's military (Parker, 2017).

The Global War on Terrorism is the longest war in the history of the United States. It involved an exceptional number of National Guard and Reserve service men and women, with many being deployed multiple times to a unique warfare arena (Sherman et al., 2015). According to the Department of Defense (2014), over 2.6 million members of the military were deployed in support of OEF, OIF, and Operation New Dawn (OND). Service members returned home after deployment with multiple mental health issues that needed to be addressed. Research conducted on the impact of postdeployment and combat issues led to the development and implementation of specific clinical interventions and guidelines to treat soldiers and veterans suffering from PTSD (Cook & Stirman, 2015). However, there is a lack of research addressing the unique needs of Hispanic veterans, their therapeutic outcomes, and acculturation.

## Statement of the Problem

The current literature on PTSD highlights numerous issues veterans are faced with when they return from combat duty (Dursa et al., 2014; U.S. Department of Veterans Affairs [VA], 2014). An estimated 26% of veterans experience mental illness within a year of returning from war and require unique treatment and services when compared to non-military populations (Rozanova et al., 2015). According to research conducted by Alcantara et al. (2013), Hispanics have a higher prevalence of PTSD than veterans of other ethnicities. Sanchez (2013) indicated that even though there is a long history of Hispanics serving in the military, there is a paucity of research addressing the mental health needs of this population.

Research has indicated that patients benefit from a cultural dimension and an integrative approach to the delivery of mental health services (Eisenman et al., 2008; Strom et al., 2012). According to Koo et al. (2015), racial/ethnic minority veterans with PTSD often struggle to build a positive therapeutic alliance with their therapist, leading to under-utilization of mental health services. The Veterans Administration (2004) has disseminated information, practice guidelines, and educational activities on evidence-based treatment for PTSD (Cook et al., 2015). Yet, little is known about the influence of culture or acculturation on therapeutic outcomes, particularly for Hispanic veterans diagnosed with PTSD.

According to Steenkamp (2014), it is necessary to address the specific needs of all veterans as they are presented instead of implementing a one-size-fits-all treatment plan. Therefore, there is a need to address the shortcomings in the literature and research how

acculturation may impact treatment outcomes for Hispanic veterans and their mental health. While the extant literature indicates that acculturation is an important factor in therapy treatments (Huang & Zane, 2016) and that Hispanic populations are particularly vulnerable to PSTD (Alcantara et al., 2013), there is a dearth of research assessing correlations between acculturation and response to treatment for PTSD among Hispanic veterans (Koo et al., 2015). In this research, I sought to fill this gap identified in the literature.

## Purpose of the Study

The purpose of the study was to explore self-identified outcomes of three treatment modes and how these modes correlate with acculturation for Hispanic veterans diagnosed with PTSD at an outpatient clinic and community outreach agencies for veterans in a large city in the Southwest United States. The study had a quantitative, quasi-experimental survey design consistent with investigating therapeutic outcomes and acculturation levels. In a quasi-experimental design, the sample of participants is not randomly assigned into control and experimental groups (Bordens & Abbott, 2008).

I used three self-report questionnaires for the study. Two of these instruments, the PTSD Checklist for DSM-5 (PCL-5) and the General Well-Being Schedule (GWB) allow for consistent measurement of PTSD and psychological symptoms across the three therapeutic approaches: individual behavioral therapy, group behavioral therapy, or combination of the two therapies. The third instrument, the Bidimensional Acculturation Scale for Hispanics (BAS) measures two major cultural dimensions (Hispanic and Non-Hispanic) to assess levels of acculturation. All three measures were administered at the

beginning of therapy to collect baseline data. After 8 weeks of therapy, the PCL-5 and GWB were re-administered. A combination of mixed model ANOVAs and multiple linear regressions were used to address the research questions.

## Research Questions and Hypotheses

The following research questions and hypotheses are derived from the review of literature regarding PTSD, Hispanic veterans, and acculturation.

**Research Question 1**: Will there be a significant difference in pre- and post-testing in the total symptom severity score of the PTSD Checklist for DSM-5 (PCL-5) between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies?

***H*□1:** There will not be a significant difference in pre- and post-testing in the total symptom severity score of the PCL-5 between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

***H*□1:** There will be a significant difference in pre- and post-testing in the total symptom severity score of the PCL-5 between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

**Research Question 2**: Will there be a significant difference in pre- and post-testing in the total scores of the General Well-Being Schedule (GWB) between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies?

***H*□2:** There will not be a significant difference in pre- and post-testing in the total scores of the GWB between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

***H*□2:** There will be a significant difference in pre- and post-testing in the total scores of the GWB between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

**Research Question 3:** Does a significant relationship exist between level of acculturation as measured by the Bidimensional Acculturation Scale (BAS), and PTSD symptom severity as measured by the PCL-5 for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies?

***H*□3:** There will be no significant relationship between level of acculturation as measured by the BAS and PTSD symptom severity as measured by the PCL-5 for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

***H*□3:** There will be a significant relationship between level of acculturation as measured by the BAS and PTSD symptom severity as measured by the PCL-5 for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

**Research Question 4:** Does a significant relationship exist between level of acculturation as measured by the BAS, and general well-being as measured by the GWB scale for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies?

***H*□4:** There will be no significant relationship between level of acculturation as measured by the BAS and general well-being as measured by the GWB scale scores for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

***H*□4:** There will be a significant relationship between level of acculturation as measured by the BAS and general well-being as measured by the GWB scale scores for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

## Theoretical Constructs

Over the past 30 years, data have been collected to gain a better understanding of PTSD and how it impacts an individual physically and psychologically. The cultural care theory (CCT) serves as an important theoretical framework to provide mental health professionals with an understanding of a culture's dynamic influence on mental health (Leininger, 2002). The fundamental principle of CCT (Leininger, 2002) is to establish and explain the diversity and worldwide culturally based care factors of health and well-being, illness, or death. This theory examines research and offers diverse populations culturally reliable, safe, and purposeful care. The theory embraces three modes of care choices, and procedures that act as foreseeable guides for health and well-being.

The first mode is cultural care preservation or maintenance. This comprises measures and choices that support individuals of diverse populations to retain, preserve, and conserve their positive care beliefs on well-being and values, recover from an illness, or learn to deal with their illnesses or disabilities (McFarland et al., 2015).

The second mode involves cultural care accommodations or negotiations. This embraces any assistive, supportive, facilitative, or enabling creative professional actions and decisions that help people of a designated culture adapt to or consult with professional care providers for culturally compatible, safe, and effective care and well-being, which will lead to more favorable or satisfying health outcomes (McFarland et al., 2015).

The last mode is cultural care repatterning or restructuring which encompasses assistive, supportive, facilitative, or enabling professional actions or decisions that will support a client to reorganize, change, adapt or restructure their lifestyle for one that will include different and beneficial health care patterns. At the same time, a client's cultural values and beliefs are respected when providing a beneficial and healthier lifeway (McFarland et al., 2015).

This model helps bridge the gap and increase understanding of the complexities of the interrelationships of mental health. It also helps create awareness of the cultural values, beliefs, and behaviors shared by an ethnic minority. CCT allows clinicians to conceptualize the role that culture plays regarding mental health. In this research, I assessed the implementation of the CCT framework in the current practices used to treat Hispanic veterans with PTSD. Thus, the practices employed were compared to those prescribed by the framework. The framework is used to identify research questions and associated hypotheses relating to the role of acculturation in PTSD treatment for Hispanic veterans.

## Definition of Terms

*Acculturation* is the ongoing process of social and psychological change that occurs when two or more cultures come into contact (Avila, 2014).

*Caballerismo* is a dimension of machismo that includes egalitarian beliefs, affiliation, positive family relations, and empathy (Arciniega et al., 2012; Glass & Owen, 2010; Herrera, Owens, & Mallinckrodt, 2012; Torres et al., 2012).

*Collectivistic community* describes how the needs of the group take precedence over the needs of the individual, thus building a sense of commitment among group members (Ahronson & Cameron, 2009; Greer, 2012; Lesko, 2011; Sue & Sue, 2015).

*Cultural care theory (CCT)* provides a theoretical framework for understanding the complexities of how culture influences mental health and the complexities of the interrelationship (Leininger, 2002).

*Culture* includes the beliefs and customs that are part of family history, race, ethnicity, socioeconomic class, values, morals, and language (Lesko, 2011; Sue et al., 2015; Webster, 2016).

*Familismo* is a cultural value that is based on a collectivistic view that focuses on family values and family well-being instead of personal opportunities (Ojeda & Pina-Watson, 2013; Smith-Morris et al., 2013).

*Group* is defined as at least two people who have a connection or link between them (Lesko, 2011).

*Group conformity* is defined as change in an individual's behavior, opinions, or belief system that results from pressure from a person or persons in a group (Lesko, 2011; Toelch & Dolan, 2015).

*Hispanic* is a term that was officially introduced into the official government lexicon by the Office of Budget and Management in 1978 (Diffen, 2017), thus creating an ethnic category that included persons of Mexican, Puerto Rican, Cuban, Central American, or other Spanish origin.

*Individualistic community* describes how the needs of the individual take precedence over the needs of the community (Ahronson et al., 2009; Greer, 2012; Lesko, 2011; Siebold, 2007; Sue et al., 2015).

*Informational conformity* drives an individual to acquire acceptable responses; therefore, copying behaviors that are expressed by many group members (Toelch et al., 2015).

*Ingroup bias* is the tendency to favor "one's own group," or a group that the individual may associate with at any time (Festinger et al., 1950).

*Latino* is a term often used synonymously with the term *Hispanic* and refers to people with Latin American ancestry (Pittman, 2014).

*Machismo* is defined as dominance, hostility, and interpersonal dogmatism that relates to typical Hispanic traditional heads of household (Herrera et al., 2012).

*Normative conformity* occurs when an individual conforms to group norms by demonstrating a sense of belonging and acceptance into the community (Lesko, 2011; Toelch & Dolan, 2015).

*Operation Enduring Freedom (OEF)* refers to the war in Afghanistan that focused on the reduction on counterterrorism activities (Dale, 2008).

*Operation Iraqi Freedom (OIF)* was coined by the U.S. Department of Defense to refer to the 2003 military campaign to disarm Iraq of weapons of mass destruction (Dale, 2008).

*Operation New Dawn (OND)* is an operation of the US Marines in Afghanistan, with the goal of minimizing insurgency in areas with low population (Fayloga, 2010).

*Post-Traumatic Stress Disorder (PTSD)* is an anxiety disorder that develops in relation to an event which creates psychological trauma in response to actual or threatened death, serious injury, or sexual violation (American Psychiatric Association, 2013).

*Respeto* is a cultural value that is defined as unconditional respect and deference to elders and authority figures (Calzada et al., 2010; Calzada et al., 2012; Ojeda et al., 2011).

*Separation* is the exclusive rejection of the culture of origin and complete acceptance of the dominant culture (Sobral et al., 2013).

*Social cohesion* entails having a positive attitude and feelings toward the ingroup (Gavin & Furman, 1989; Negy et al., 2003).

*Social fitness* is an operational concept used to describe social cohesion and encouragement of members to form a family unit (Coulter et al., 2010; Kelty, 2009).

*Social influence* is defined as the ability to impact change in others in a social situation (Germar et al., 2014; Lesko, 2011; Toelch et al., 2015).

*Veterans' Affairs* is a branch of the U.S. government that oversees the operation of numerous VA outpatient clinics, hospitals, medical centers, and long-term healthcare facilities (Department of Veterans Affairs, 2015).

## Significance

The research can impact positive social change by identifying correlations between therapeutic outcomes and acculturation for Hispanic Veterans with PTSD. The results may facilitate improved assessment and treatment, and therapists may better understand how culture and sociocultural factors impact the diagnosis and treatment of Hispanic veterans.

## Assumptions and Limitations

It was presumed that participants who voluntarily took part in the study would complete the PCL-5, the GWB, and the BAS. Miles et al. (2008) assessed and found that the PCL-5 had high consistency and concurrent validity. Longo et al. (2017) found that there was consistent evidence of dimensionality, measurement invariance, reliability, and validity for the GWB. Norris et al. (1996) established that the BAS correlated highly with known factors of acculturation. The working assumption was that participants would answer questions carefully and genuinely, and that the PCL-5, the GWB, and the BAS are appropriate measures for this study. Generalization of this study to populations beyond those comparable to the veterans taking part in this anonymous study is deemed limited.

## Summary

Many psychological researchers have taken the lead to investigate the impact wartime combat has on military veterans who have been identified with PTSD (Meyers et al.; 2013; Seal et al.; 2007; Vasterling et al. 2016; Xue et al. 2015). According to Ray and Vanstone (2009), there is limited research conducted on the impact of PTSD on Hispanic veterans. The research that has been conducted on Hispanic veterans indicates they have a higher probability of more severe symptoms in multiple domains of PTSD (Ortega & Rosenheck, 2000). Military culture supports collectivism, conformity, and attachment to units; and for deployed Hispanic service members, equally important relationships with their supportive families are disrupted (Ahronson et al., 2009). Research indicates that OEF, OIF, and OND combat veterans have been reported to be at a higher risk for developing PTSD, but Hispanic veterans in particular are more vulnerable to developing PSTD (Alcantara et al., 2013; Ahronson et al., 2009; Kracen et al., 2013; Ortega & Rosenheck, 2000; Pitman, 2014). Therefore, it is vital to conduct research on treatment outcomes for Hispanic veterans, as research regarding this population is lacking. Input from this population may provide researchers with different perspectives and insights that may improve treatment planning for Hispanic veterans.

In Chapter 2, I provide a review of the existing literature and establish the need for continued research on mental health services and treatment outcomes for Hispanic veterans and their effectiveness in reducing PTSD symptoms. The chapter will also review research on the CCT, which provides a theoretical framework for mental health professionals and how culture can play a powerful role in mental and behavioral health.

# Chapter 2: Literature Review

This literature review establishes the need for continued research on mental health services and treatment outcomes for Hispanic veterans and their effectiveness in reducing PTSD symptoms. As military veterans return to their civilian lives, the need for mental health services increases as they are faced with issues of combat trauma (Cohen et al., 2015; Hebenstreit et al., 2015). Acculturation research has identified the need for a cultural dimension and integrative approach to the delivery of mental health services (DiGangi et al., 2016; Herrera & Owens, 2015). Another concern is whether veterans are receiving quality treatment and experiencing a reduction of symptoms.

## Literature Search Strategy

A search of literature was conducted through electronic databases including PsycINFO, PsycArticles, Academic Search Premier, MEDLINE, CINAHL, JAMA Network, Google Scholar, EBSCOhost, Medscape, Psychology and Behavioral Sciences, Published International Literature on Traumatic Stress, and National Institute of Health. I also used Psychology and Behavioral Sciences databases search for social and cultural influences on PTSD. The list of search terms used included *post-traumatic stress disorder*, *trauma*, *veterans*, *military*, *Hispanics*, *acculturation*, *predictors*, *familismo, famialism, familism*, *respeto*, and *the Cultural Care Theory.* Peer-reviewed journals in the fields of psychology and medicine were obtained through the Walden University library. Additional military resources and information were obtained from the U.S. Department of Defense and Veterans Administration.

## Theoretical Foundation

The fundamental principle of Leininger's CCT (2002) is to ascertain and expound on diverse and universal culturally based care factors including the health and well-being, illness, or loss of individuals. This theory uses research findings to provide culturally consistent safe and meaningful care to clients of diverse or similar cultures. The theory includes three modes of care decisions, and actions that serve as predictable indicators for health and well-being (McFarland et al., 2015). The first mode is cultural care preservation or maintenance, which includes assistive and supportive measures that will help individuals of diverse or similar cultures to maintain and preserve appropriate care values and be able to continue in their wellbeing, recover from any illness, or deal with any type of disabilities (McFarland et al., 2015). The second mode involves cultural care accommodations. According to McFarland et al. (2015), these accommodations include compassionate, innovative professionals who help and support clients of diverse or similar cultures by adapting or by working with other health providers so that their actions and decisions will help support people of a specific culture to adapt and attain optimal health outcomes. The last mode is cultural care repatterning or restructuring, which comprises assistive, compassionate, and/or professional activities or choices (McFarland et al., 2015). The professionals' choices and decisions help clients of diverse or similar cultures regroup, modify, or adapt fine-tune their lifestyle in order to attain the best and most advantageous health care arrangements and feel that their cultural values and beliefs are being valued while being provided a valuable and healthy lifeway.

CCT is an important theoretical framework to provide mental health professionals with an understanding of a culture's dynamic influence on mental health (McFarland et al., 2015). This model helps bridge the gap and recognize the complexities of the interrelationship between mental health and the cultural values, beliefs, and behaviors shared by an ethnic minority. CCT helps clinicians to conceptualize the role that culture plays in mental health. In this research, I assessed the potential benefit of CCT in the current practices used to treat Hispanic veterans with PTSD. Thus, the practices employed were compared to those prescribed by the framework. The framework is used to identify research questions and associated hypotheses relating to the role of acculturation in PTSD treatment for Hispanic veterans.

To investigate CCT, Russell et al. (2014) conducted a qualitative study of 20 individuals who were diagnosed with mental illness or severe behavioral disturbances. This study was designed to explore the mental health care of the migrant consumers born in mainland China who were inpatients in a mental health unit. The results of the study were limited due to the in-depth investigation of single person care that was delivered at one hospital site. Russell et al. (2014) recommended that future researchers should consider transcultural care more widely.

In a study conducted by Mixer et al. (2015), 12 families and 12 health providers collaborated to identify and analyze the culture care challenges of Hispanic and underserved Caucasian children and families in the pediatric medical-surgical unit of an urban regional children's hospital in the southeastern United States. The goal of the study was to discover general, traditional, and professional actions that foster the health, well-

being and culture-congruent care of children and families from various cultural groups. The results identified family, faith, communication, care integration, and meeting basic needs as the five most valuable care factors.

The need for further research in implementing a culturally sensitive and caring framework in the health care field has been examined (Lancelotti, 2008). The lack of diversity of approaches in mental health has been linked to health disparities. Health care professionals must deal with ethnic diversity, cultural beliefs, and values that are an integral part of their clients' mental health care (Russell et al., 2014).

## Literature Review

### Overview of PTSD

The American Psychiatric Association added PTSD to their third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) classification core in 1980. Although doing so brought much controversy, PTSD was a diagnostic term that the field of psychiatry and the health profession needed. According to Anders (2012), the PTSD concept assumed the experience of an original external traumatic event. The criteria for PTSD were based on research involving Vietnam War veterans, holocaust survivors, sexual trauma victims, and others (Friedman et al., 2017). This was the beginning of being able to link a soldier's trauma at war and postmilitary civilian life (Friedman et al., 2017).

In 1987, the American Psychiatric Association revised the DSM and produced the DSM-III-R. The criteria that were established for PTSD included the following: (a) the stressor criterion, (b) re-experiencing symptoms (at least once), (c) avoidance symptoms

(at least three), (d) arousal symptoms (at least two), and (e) duration criterion of at least one month (Blashfield et al., 2014). However, during this revision, the acute designation was dropped, and the stressor criterion continued to be part of the eligible stressors.

Exposure to traumatic stress is a common psychological result of military operations and a precondition for PTSD (Xue et al., 2015). According to the DSM-IV (American Psychiatric Association, 2000), an essential feature of PTSD is the development of symptoms following the exposure to a traumatic stressor that involves the direct personal experience of an actual or threatened death or serious injury, or witnessing an event that involves the threat to one's physical integrity or that of another person; or learning about unexpected or violent death, serious harm, or death or injury experienced by a family member or other close associates.

The person's response to the event must involve intense fear, helplessness, or horror. The symptoms resulting from exposure to the traumatic event include re-experiencing the traumatic event, persistent avoidance of stimuli associated with the traumatic event, numbing of general responsiveness and persistent symptoms of increased arousal. These symptoms must be present for more than a month and cause clinically significant distress or impairment in social, occupational, or other important areas of functioning (American Psychiatric Association, 2000).

The fifth edition of the DSM (DSM 5; American Psychiatric Association, 2013) diagnostic criteria include five main features delineated as A through E, and specifiers of dissociative symptoms of depersonalization or derealization with delayed expression. Criterion A includes details of the traumatic experience to which an individual was

exposed. The individual must have directly experienced, witnessed, or learned that a close family member/friend has suffered threatened death, serious injury, or sexual violence. The person's response must involve fear, helplessness, or horror. Criterion B deals with the recurrent, intrusive, dissociative symptoms associated with the traumatic event after the event occurred. The individual must experience intense, prolonged, or marked psychological distress that symbolizes an aspect of the traumatic event. Criterion C involves the persistent avoidance of thoughts, feelings, and activities and/or conversations associated with the trauma. It can also include a lack of ability to recall an aspect of the traumatic experience. Criterion D encompasses negative alterations in cognition and mood that include a diminished interest or participation in activities, emotional numbing, feelings of detachment or estrangement from others, restricted range of affect, and a sense of a shortened future (American Psychiatric Association, 2013). Criterion E comprises alterations in arousal and reactivity associated with the traumatic event. Individuals may experience irritability or outburst of anger, reckless and destructive behavior, hypervigilance, exaggerated startle response, difficulty concentrating, and difficulty falling or staying asleep. There is a clinical subtype, "with dissociative symptoms," added for individuals experiencing depersonalization and or de-realization. Depersonalization encompasses the persistent or continuing experiences of feeling disconnected from one's mental processes or body (American Psychiatric Association, 2013).

PTSD is a prevalent issue in the United States. Current research indicates that approximately half of adults in the United States have been exposed to some traumatic

stress in their lifetime (Kilpatrick et al., 2013; VA, 2016). While experiencing some form of trauma might not be rare, the National Center for PTSD (2016) reported that based on the U.S. population, 7%-8% of the population will have PTSD in their lives, 8 million adults have PTSD during a given year, and 10% of women will develop PTSD sometime in their lives. According Xue et al. (2015), increased combat exposure, discharging a weapon, witnessing someone being wounded or killed, severe trauma, and deployment stressors were identified as risk factors for increasing the probability of developing PTSD post-deployment. Although many service members do not develop PTSD and can smoothly complete their deployments and reintegrate back to civilian or military life, there are those who struggle to readjust.

Researchers have reported an elevated prevalence of PTSD among OIF/OEF veterans and symptom presentation or differences by race/ethnicity and gender (Hebenstret et al., 2014; Koo et al., 2016; Loo, 2016; Spoont et al., 2014, 2017). Hispanics are the fastest growing minority population in the United States and the prevalence of mental health problems among them vary as a reflection of the diversity of experiences and circumstances. Given the amount of diversity that exists among Hispanic individuals, it is important to understand the impact this diversity has regarding Hispanics seeking or needing treatment. Awareness of such differences may aid in providing adequate care for diverse veterans.

**Combat Veterans, Hispanic Combat Veterans, and PTSD**

The impact of wartime combat and multiple deployments can lead to unique challenges related to postdeployment mental health disorders for military veterans.

Although the psychological injuries suffered by OIF/OEF veterans are not significantly new or different from previous wars, it is the repeated deployments and high stress environments of OIF/OEF that have resulted in significant physical and psychological consequences (Smith &True, 2014; Vasterling et al., 2016). Researchers have examined PTSD and other psychological issues as mandated by the National Vietnam Veterans Readjustment Study (NVVRS); however, comparatively less research has been specifically on the development of PTSD among Hispanic combat veterans.

Approximately 11%-20% of OEF and OIF service members are diagnosed with PTSD each year (National Center for PTSD, 2017) and need mental health services (Meyers et al., 2013). Research indicates that approximately half a million veterans who served in OEF and OIF are estimated to have a diagnosis of PTSD (Dursa et al., 2014; Vasterling et al., 2016).

In response to a congressional mandate in 1983 to investigate PTSD and other postwar psychological problems among Vietnam veterans, the NVVRS was conducted (Marmar et al., 2015; Price, 2016; Schlenger et al., 2015). The purpose of the NVVRS was to obtain prevalence rates of postwar psychological problems to serve veterans' needs. The national sample were grouped according to their involvement in their involvement in the Vietnam War. The NVVRS used a multimethod approach (e.g., self-report, clinical interview) using the Mississippi Combat-Related PTSD Scale, Minnesota Multiphasic Personality Inventory PTSD Scale, and the Structured Clinical Interview for DSM-III-R PTSD module to study the sample (Marmar et al., 2015; Price, 2016; Schlenger et al., 2015).The major findings of the NVVRS indicated that across the 100

life-adjustment indices, the majority of Vietnam veterans appeared to have successfully adjusted to postwar life and were experiencing few psychological disorders (Marmar et al., 2015; Price, 2016; Schlenger et al., 2015). However, the NVVRS also indicated that Hispanic and African American Vietnam theater veterans reported more mental health and life adjustment problems (Marmar et al., 2015; Price, 2016; Schlenger et al., 2015). Hispanic male veterans were reported to have the highest prevalence of PTSD; and of the sample experiencing mental health and life adjustment problems, only a small number sought treatment from health providers (Marmar et al., 2015; Price, 2016; Schlenger et al., 2015).

PTSD related to military or combat trauma exposure is reportedly an estimated 35.8% for males and 17.5% for female Vietnam theater veterans (Price, 2016). Findings from the NVVRS indicated that approximately 830,000 Vietnam veterans had current partial PTSD and the numbers were higher for lifetime partial PTSD (Price, 2016). There are approximately 20 veterans who die by suicide daily in the United States in response to their suffering with PTSD (National Center for PTSD, 2017). The impact of deployment stressors and exposure to military traumatic events and circumstances are factors for combat veterans to be at an increased risk for mental health problems including PTSD (Hines et al., 2014). There are also increased rates of PTSD after deployment, and thus the emergence of delayed-onset PTSD is a health concern as well (Hines et al., 2014).

A study was conducted to determine the prevalence of PTSD between military subgroups who were deployed to either Iraq or Afghanistan by reviewing the literature

using Ovid, MEDLINE, and PubMed databases (Hines et al., 2014). Results indicated that PTSD rates were higher for Reserve and National Guard personnel compared with regular active personnel who were deployed to Iraq and Afghanistan (Hines et al., 2014). Moreover, the rates were also higher among Reserve and National Guard personnel in comparison to regular active-duty personnel a year after post-deployment (Hines et al., 2014). The study also found that Army, Marines, and National Guard men and women had higher levels of combat exposure and trauma history in comparison to men and women in the Navy. Hines et al. (2014) found that the Army (13%) and Marines (10%) had the highest PTSD cases, followed by the Navy (7%), and Air Force (3%).

PTSD symptom trajectory among active duty and separated military personnel were examined by Porter et al. (2017). The sample consisted of 22,080 participants, and PTSD symptoms were assessed using the PCL-C. Sex, race, age, marital status, service branch, military occupation, and pay grade data were obtained from databases. The results of the study indicated that PTSD symptoms among veterans and active-duty personnel were similar (Porter et al., 2017).

Numerous researchers have confirmed that military veterans have returned from duty suffering with severe physical and emotional trauma (Adams et al., 2016; Conrad & Sauis, 2014; Lippa et al., 2015; Worthen et al., 2015). Although researchers have conducted a significant amount of research on PTSD, comparatively less research has been conducted on the development of PTSD among Hispanics. It is appropriate to begin closing this gap, as Hispanic-Americans are now the largest and fastest-growing minority group in the United States (Pittman, 2014).

Within the limited data available, Hispanics evidence a higher rate of PTSD relative to Whites and other minority racial/ethnic groups (Asnaani & Hall-Clark, 2017). Hispanic and African American service men and women reported more fear, re-experiencing symptoms, guilt, and numbing than White participants (Asnaani & Hall-Clark, 2017). According to Pittman (2014), it is estimated that the Hispanic PTSD-prevalence rate was 27.9%, in comparison to the 13.7% PTSD prevalence rate among non-Hispanic Caucasians. Therefore, the higher prevalence of PTSD among Hispanics has generated studies to identify the possible factors that place Hispanics at higher risk for developing PTSD.

To gain a better understanding of the prevalence of PTSD among U.S. veterans, Fulton et al. (2015) conducted a meta-analysis of 33 studies involving 4,945,897 OEF/OIF veterans. In reviewing the studies, 85.3% of the participants were male, 28 studies reported that 66.7% of the sample were Caucasian, and in nine of the studies, the average age of the participants was 32.2 years. Twenty-five studies included documentation of a PTSD diagnosis, two studies used the PTSD Checklist-Civilian and three studies implemented the Primary Care PTSD Screening (Fulton et al., 2015). The findings of the meta-analysis indicated that PTSD prevalence in OEF/OIF veterans was of substantial significance (Fulton et al., 2015).

Research indicates that certain variables can predispose individuals to develop PTSD and or impact the severity of PTSD symptoms (Hines et al., 2014; Pitman, 2014). Having a pre-trauma vulnerability through family history of mental health disorders, personality traits, gender, early traumatization, or negative parenting experiences, were

linked with PTSD (Xue et al., 2015). Experience with natural disasters, accidents, assaults, or exposure to violence or crime (American Psychological Association, 2017; Xue et al., 2015) can also impact PTSD severity. Other variables that may impact PTSD symptomology include demographic characteristics such as lower educational attainment and age (Lauth-Lebens & Lauth, 2016) and lower income or socioeconomic status (American Psychological Association, 2017). Another variable to consider is whether the individual is an active-duty soldier or National Guard or Reserve soldier as these reservists are civilians who are more likely to become susceptible to stressors than an active-duty soldier (Cohen et al., 2015; Hines et al., 2014).

Asnaani and Hall-Clark (2017) examined research conducted on potential influences of ethnocultural and racial group status on PTSD. The findings indicated that cultural factors such as stigma, acculturation and ethnic identity, and discrimination impact racial/ethnic minorities in the endorsement and development of PTSD symptoms. Their data indicates that in the last 5 years, African Americans, Hispanics, and Native Americans presented with the highest rates of PTSD and Asian American presented with the lowest rates in comparison to White veterans. Asnaani and Clark-Hall (2017) suggested that the cultural factors be considered when interpreting PTSD symptoms among ethnic minorities.

To gain a better understanding of the relationship between PTSD and the Hispanic population, Ortega and Rosenheck (2000) reexamined the National Vietnam Veterans Readjustment Study. The study was conducted on a national sample of veterans who had served in the U.S. armed forces during the Vietnam War. The sample population included

561 (47%) non-Hispanic white, 301 (25%) non-Hispanic Black, 61 (5%) Puerto Rican, 176 (15%) Mexican American, 35 (3%) other Hispanic, and 61 (5%) were of another ethnicity. Ortega and Rosenheck (2000) measured symptoms of PTSD, acculturation, occupational instability, marital problems, subjective well-being, social isolation, and hostility. The results indicate that Hispanic Vietnam veterans had a higher probability of having PTSD than Caucasian and African American veterans. Hispanics also reported more severe symptoms in multiple domains. The findings indicated that Puerto Ricans scored significantly higher than Caucasian veterans on hyperarousal and lower on numbing symptoms. Other Hispanic veterans scored significantly lower than Caucasian veterans on the numbing and avoidance components (Ortega & Rosenheck, 2000). They also reported that Puerto Rican veterans had greater probabilities for drug abuse or dependence and major depressive disorder, and Mexican American veterans had higher probabilities for alcohol abuse or dependence.

There were several limitations reported by Ortega et al (2000). First, the sample population were exclusively Vietnam veterans, and their experiences regarding war trauma may differ from those of other war veterans. Second, ethnic variables did not address personal identity, cultural background, and generational status. Consequently, the acculturation level of the participants is undetermined and cannot be generalized. Therefore, more literature is needed to examine this population as numerous studies are inconsistent in their findings on acculturation variables and the impact of PTSD (Di Gangi et al., 2016; Morrison, 2012; Nason et al., 2014).

Although researchers have conducted research on PTSD, relatively limited research has been conducted on the development of PTSD among Hispanics. Given that Hispanic-Americans are the largest and fastest growing minority in the United States, it is time to start closing the gap on combat veterans.

**Military Culture and Structure**

There is a unique culture amongst military personnel (Cole, 2014). It is familial in nature; however, with deployments and frequent moves and separation from family, military personnel mandate a degree of detachment. The values of honor, duty, and service to country are well-established in the military. With the creed of self-sacrifice and commitment to discipline, service men and women are often reluctant to ask for help when they experience PTSD symptoms. According to Rozanova et al. (2015), many veterans report that a mental health diagnosis would negatively impact their sense of being and their career-building goals. While these service men and women are trained to maintain self-control and remain unemotional when faced with a combative situation, upon their return from deployment, reintegrating back into civilian life requires that they process emotions in a more traditional manner.

Many military veterans have returned from OEF, OIF, and OND suffering with severe physical and emotional trauma (Asnaani et al., 2017; Hines et al., 2014; Hoge et al., 2004; Institute of Medicine, 2013; Pittman, et al., 2011). This has led many to investigate the impact that war has on military veterans who have been identified with PTSD (Hoge et al., 2004; Hosek, 2011; Institute of Medicine, 2013;). The Department of Veterans Affairs has been providing care to returning soldiers through clinics or

treatment teams specifically for veterans returning from combat theater. The VA now requires that veterans seeking treatment for a psychiatric complaint receive a mental health evaluation and initiation of care within fourteen days (VA, 2015). Furthermore, performance is being monitored, and numerous VA hospitals have opened or expanded satellite Community-Based Outpatient Clinics (CBOCs) to provide access to care for veterans in rural areas (Institute of Medicine, 2008, 2013; VA, 2015).

### *Military Culture*

According to Lesko (2011), *culture* can be defined as a system of shared meanings, perceptions, and beliefs that are held by persons that belong to a group. Of distinct importance is the definition of the word *group*. A group is defined as at least two people who have a connection or link between them (Lesko, 2011). Culture is a part of the beliefs and customs that comprise family history, race, ethnicity, socioeconomic class, values, morals, and language (Sue et al., 2015; Webster, 2017). These characteristics help individuals build relationships with each other, cope with, and understand each other's pathologies.

There are two very different approaches that an individual can implement to identify with their community. The members from a collectivist culture underscore family unity and loyalty to community values (Lesko, 2011; Sue et al., 2015). The difference between a collectivistic community and an individualistic community is the significant needs of the group take precedence over the needs of the individual; this builds a sense of commitment among group members (Greer, 2012; Lesko, 2011; Sue et al., 2015). This collectivistic structure and behavior are part of the military's history,

beliefs, and environment that are well-defined and generate cohesion and behavior that is expected and respected.

Specific collectivistic norms are established among group members in the military to attain unity, organization, and structure that are different from civilian culture. According to Lesko (2011) norms are certain behaviors that are influenced by a group's beliefs, customs, or values. Loyalty, duty, respect, selflessness, honor, integrity, and personal courage are seven Army values that are part of the military's value system (Kelty, 2009; Spiegel & Schultz, 2009; U.S. Army, 2016). Lesko (2011) noted that these values are integrated into the military's social norms. When service men and women are separated from civilian life and are afforded an enclosed environment, they learn specific social norms and unique values that augment loyalty and commitment to each other (Spiegel et al., 2009). They also improve and maintain collectivistic principles among group members. Two of the social norms are respect and duty, and these are integrated into a ranking system whereby members are part of a hierarchical chain of command. This ranking system is multi-level and starts at the bottom with a recruit at basic training to the highest rank in command, the President of the United States. When the values of a collectivistic culture are implemented, the military has created a sense of unity among its members (Coulter et al., 2010).

***Collectivistic Identity and Group Conformity***

An important aspect of collectivism is group conformity. *Group conformity* is defined as change in an individual's behavior, opinions, or belief system that results from pressure from a person or persons in a group (Toelch & Dolan, 2015). There are two

distinct influences that drive conformity behavior: informational and normative (Toelch et al., 2015). *Informational conformity* drives an individual to acquire acceptable responses, therefore copying behaviors that are expressed by most group members (Toelch et al., 2015). For example, when there is discord in a social setting, group members rely on each other to follow the group's behavior affording them the opportunity to adhere to group norms that include beliefs, customs, and values (Toelch et al., 2015).

*Normative conformity* occurs when an individual conforms to group norms by demonstrating a sense of belonging and acceptance into the community (Toelch et al., 2015). The desire for social acceptance from the group allows the individual to develop a social identity which impacts the way people interact with others. *Social influence* is defined as the ability to impact change in others in a social situation (Germar et al., 2014; Toelch et al., 2015). According to Vrij et al. (2005), social change can result from either obedience to a direct order from authority or willingness to comply and accept change. Social influences are part of our daily living which helps individuals conform to society's rules. The military implements both informational and normative conformity to support its' members and help them feel accepted, have them engage in social interactions and promote a sense of belongingness. The military is comprised of a distinctive collectivistic culture and environment wherein men and women voluntarily enlist to serve their country. By doing so, these men and women can experience a sense of belongingness to a well-known national identity despite their gender, race, ethnicity, religion, or socio-economic status (Coulter et al., 2010; Kelty, 2009).

Military culture is conducive to group conformity as it not only segregates its members from non-military members but builds a strong sense of cohesion (camaraderie) and alliance amongst its members. The organizational collectivistic ideals stipulate that the group is of more importance than the individual (Sue et al., 2015; Toelch et al., 2015). Conformity is a crucial element when trying to achieve unity amongst the group.

According to Greer (2012), cohesion has a positive relationship with group performance. General well-being, combat effectiveness, job performance, and job satisfaction, is widely recognized in group levels (Borjesson & Enander, 2011). A group with high task cohesion is composed of members who are inspired to synchronize their efforts as a team, physically and psychologically, to accomplish a goal (MacCoun et al., 2006; Williams et al., 2016). In the military, group cohesion is instilled during basic training. According to MacCoun and Hix (2010), cohesion exists in a unit when the individual soldier's group, unit, and group leader's daily goals are compatible with each other. They bestow their primary loyalty to the group so that they train and fight together as a unit with all the members willing to risk their lives to achieve a common goal.

Soldiers adapt to the group's values, customs, and beliefs that may be different from their own culture (Goodale et al., 2012). Critical factors that increase group conformity to military culture are unity, group pressure, sense of belonging, and age of members. When the group has a strong, unified attitude about their beliefs; the odds increase that an individual will adhere to the majority's attitudes and beliefs (Vrij et al., 2005). The individuals develop a sense of self-worth and social belongingness when they are accepted members of a group (Tajfel et al., 2004). However, rejection by the group

may lead to social exclusion. Age is another significant factor in group conformity as early- to late-adolescents are more likely to conform to group norms and develop a social identity (Santor et al., 2000; Siebold & Lindsay, 2000; Wood & Hayes, 2012). The military can implement these factors and recruit individuals ranging in age from 17 years old to early twenties. These new recruits embrace the military's strong sense of group conformity and cohesion that allows the members to develop strong bonds, trust, discipline, and high morale. Also, by conforming and acquiring collectivistic values, military members can establish an identity that is founded on an established set of customs, beliefs, values, and attitudes that are not duplicated in the civilian world. Lastly, conformity allows group members to develop an identity that is essential and distinct for military members.

***Ingroup and Outgroup Identity***

An individual establishes a social identity within a group, creating an ingroup (Festinger et al., 1950; Gavin & Furman, 1989). An ingroup bias is the tendency or inclination to favor one's own group or a group that the individual may associate with at a certain time (Festinger et al., 1950). Amidst social relationships, individuals who belong to an ingroup are often favored by their society and develop positive attitudes towards their group members (Lesko et al., 2011). People frequently derive a sense of self-worth and a sense of belonging from their association with their group; therefore, they are motivated to draw favorable appraisals from their group (Tajfel et al., 2004). When an individual has a positive attitude towards the ingroup, it aids in developing *social cohesion* (Gavin & Furman, 1989; Negy et al., 2003). According to Coulter et al.

(2010), social cohesion entails having a positive attitude and feelings toward the ingroup. Mottos like the U.S. Army's *Army Strong* helps communicate a service member's cultural pride to outside members (civilians), which in turn reinforces the strong difference between the ingroup and the outgroup (Coulter et al., 2010).

Within the military, there are certain norms and values that are established to help distinguish these men and women from civilians. The social norms and values are modeled to help establish cultural pride, identity, and conformity, which promote strong bonds amongst this distinct population (Coulter et al., 2010). According to Zavala (2014), military service members build such a strong bond with their fellow comrades that they are willing to give up their lives for their unit, group, and fellow soldiers. Military norms help increase the attachment between service members and enable them to work together in a collective manner to master a goal (Coulter et al., 2010).

Language is another cultural tool that differentiates the military from the outside group members. According to Webster's dictionary (2016), *language* is defined as the system of words or signs used and understood by a group used to express thoughts or feelings to each other. The language utilized in the military serves many purposes. The use of vocabulary for communication is a fundamental purpose. It also provides a sense of social cohesion. Military personnel use unique language for numerous reasons (MacCoun et al., 2006).

Another military cultural component is the clothing that emboldens unification and ingroup permanence. A service member's standard uniform defines their military branch, rank, level of respect, and occupation (Kelty, 2009; Pappamihiel, 2013). The

uniforms vary by branches (Army, Navy, Air Force, Marines, National Guard), occasions (everyday attire, formal, semi-formal), level of education (high school, bachelor's degree, graduate degree), and occupation. Furthermore, medals, pins, and patches, are worn on uniforms for rank, identification, and pride. Service members wear their uniforms on- and off-base and thus further enable social cohesion and ingroup and outgroup identity (Coulter et al., 2010; Kelty, 2009; Lutz, 2008; Pappamihiel, 2013).

In 2009, Kelty noted that value systems help to uphold unity and are key features in fostering solidarity. By possessing the same morals and core values, military service members become devoted to their troop, build trust, and strengthen the relationships among the community (Kelty, 2009). Cultural values underscore the collectivistic belief and social norms expected by the community. Language, clothing, and values provide the military with an illustrious reputation, dominance, and harmony that is earned by their devotion to their nation. The military has an unbreakable brotherhood that was created by cohesion that instills loyalty, trust, and equal opportunities for multicultural service members (Coulter et al., 2010; Kelty, 2009; Lutz, 2008).

### *Military Structure*

These characteristics help individuals build relationships with each other, cope, and understand each other. The literature indicates that the concept of *social fitness* is a term used in the military. It is an operational concept that is used to describe social cohesion. As per Coulter et al. (2010), military sociology would define social cohesion as a strength multiplier, the psychologically protective effect of stable, socially cohesive units that are not hypothetical, equivocal, or uncertain. When service members are

deployed to perform duties at a designated theater of operations, they face a stressful time as they meet the realities of deployment and having to leave their loved ones behind. Therefore, combat group members get to know each other, build strong bonds, support each other, and rely on each other for survival (Cacioppo, 2011). The idea of putting the group first is a principle that is a foundation principle in all branches of the military. The military's core values of loyalty, duty, respect, selfless-service, honor, integrity, and personal courage corresponds to strengths that were established to promote the overall well-being of service members as they perform their military duties (Cacioppo, 2011; Cornum et al., 2011).

Hispanics have a long history of serving in the military, and culture plays a role in the lives of this ethnic minority. According to Kelly (2016), Hispanics may be less interested in attempting to acculturate as they are faced with discrimination, racism, and prejudice by members of the dominant social group. While acculturation may not eradicate racism, prejudice and discrimination, many Hispanics continue to report discrimination despite their language proficiency and minority status (Kelly, 2016). Hispanics are more likely be the focus of prejudice and discrimination by social groups with which they do not associate and, as a result, may experience more physical and psychological adversities (Kelly, 2016). Increased acculturation and engagement in the process of adapting to the language, knowledge, and values of another cultural group, has been associated with greater risk for PTSD for Hispanics. According to Ruef and colleagues (2000), Hispanics report less camaraderie and support from fellow soldiers, in comparison to Whites and Blacks. As noted by Pole and colleagues (2005), the lack of

social support experienced by Hispanics outside of the family unit is a key factor for higher rates of PTSD as well as greater symptom severity. While serving in the military, soldiers are expected to adapt to another culture where unity, group pressure, a sense of belonging, and a strong unified attitude about their beliefs help an individual develop a sense of worth and social belongingness.

## Hispanic Culture and Hispanic Veterans with PTSD

### *Hispanic Culture*

The term *Hispanic* was officially introduced into the official government lexicon by the Office of Budget and Management in 1978, thus creating an ethnic category that included persons of Mexican, Puerto Rican, Cuban, Central American, or some other Spanish origin (Trevino, 1987). The classification of Hispanic as a race has its roots in political and racist motivations. It was in 1954 that Hispanics were considered Caucasian or White in America (Falicov, 2014).

The term *Latinos* was introduced by Hayes-Bautista and Chapa (1987), thus restricting the name to persons immigrating to the United States from Spanish-speaking Latin American countries, being that the Spanish language is a unifier among this population. This definition includes individuals of Spanish speaking regions of Latin America, including the Caribbean, Mexico, Central America, and South America (Carteret, 2015).

*Hispanic* and *Latino* can be used interchangeably (Pittman, 2014). However, some groups reject the term Hispanic because it is too broad, and it was given to Latinos without consent. Many have argued that the term *Hispanic* does not acknowledge the

heterogeneity in the Latin group. Schools used this label to circumvent the 1954 desegregation order by arguing that such schools already enrolled people of color: *Hispanics* (Falicov, 2014, p. 61). Then again, in certain regions, Latinos prefer the term Hispanic. A portion of college students prefer the term Latino over Hispanic indicating that it is more sensitive to people with mestizo background and not Spanish heritage (Taylor et al., 2012). The term that is used by government agencies and the media is Hispanic. For this study, the terms Latino and Hispanic will be used interchangeably.

Over the last 50 years, Hispanics have become the largest minority group in the United States. Hispanics account for 58.6 million of the people living in the United States (Glass & Owen, 2010; Pew Research Center, 2017). While many recent immigrants are documented, it is estimated that approximately eight million Hispanics are undocumented (Pew Research Center, 2017). According to Ayon et al. (2010), approximately ten percent of all children in the United States live with one parent or household member who is undocumented. While there might be many different dialects for a country, most Hispanics' native language is Spanish. A certain set of core values characterizes this population. The core values describe the family dynamics (*familismo*), and the levels of respect group members have amongst one another (*respeto*; Calzada, 2010; Glass & Owen, 2010; Leidy et al., 2010). Other characteristics which are part of this culture are education (*educacion*), religion and support (*carino*; Livas-Dlott et al., 2010).

Comparable to the military, within the collectivistic nature of the Hispanic culture is a shared common set of values that help define the vital bond between individuals within the community. There is research to support that Hispanic families value family

and respect more than is the average in the United States (Ayon et al., 2010; Calzada et al., 2010; Leidy et al., 2010; Miranda et al., 2006). Calzada et al. (2010) researched the acculturation level and practices that Hispanic parents ($n$ = 48) use to socialize their children to be respectful. Of the sample, 31 participants self-identified as Dominican and the remainder of the participants identified as Mexican. All Mexican participants were born in Mexico, had resided in the United States for less than 10 years, spoke Spanish in the home and 82 % were married or living with the child's biological father. The Dominican participants included 77% of the mothers who were foreign born, had lived in the United States for an average of 15 years, 71% of the participants spoke Spanish at home, 42% were married or living with a partner, and many participants did not work outside of the home. When comparing the participants' views on Hispanic values to their own perception of the U.S. American values, the results indicated that all mothers incorporated traditional Hispanic values into their daily living. Family, religion, and respect were the most important cultural values (Calzada et al., 2010). Behavioral manifestations of *respeto* included obedience to authoritative figures (i.e., parents, grandparents, aunts, uncles) as well as abiding by a set of boundaries when in public (i.e., being well behaved in front of others). *Respeto* is also shown to all others regardless of age or gender. The findings indicate that *respeto* plays a prevalent role in childrearing in the Dominican and Mexican community. The participants were mothers of preschoolers and it is not known if these practices are extended to preadolescent, adolescents, and adults (Calzada et al., 2010).

Calzada (2010) conducted two qualitative studies that explored Hispanic core values and unique aspects of Hispanic parenting in which she noted that cultural values like *familismo* and *respeto* play a central role. She further explored ways in which clinical guidelines could be enhanced for Hispanic parent training programs through the utilization of these specific values. In the first study, the sample population consisted of 12 Latina mothers who were Dominican, Mexican, and Puerto Rican. The Mexican and Dominican women spoke Spanish, and the Puerto Rican women spoke English. Most of the women were born outside of the United States except for the Puerto Rican women and one Dominican mother. The children in the families were between 3 months and 3 years old, or between 10 and 12 years old. The average age of the participants was 34 years old.

The findings suggested that *familismo* is an important value that Hispanic families utilize daily in their lives. Moreover, these values affect their family functioning. Likewise, Hispanics frequently have extended family members help in raising their children. Comparable to military social fitness, members are encouraged to have a profound connection with one another. The findings suggested that when children become adults, they keep a strong emotional and physical bond with family within their collectivistic identity. Therefore, *familismo* provides a cognitive framework for the expectations of family throughout adulthood, and the dedication that members have to one another. This allows members of the Hispanic community to rely on one another and ask for continuous support throughout a member's life (Corona et al., 2016; O'Connor et al., 2014). Hence, Hispanics have the duty to respect, protect, uphold, honor, and defend

the family name (Corona et al., 2016). This cultural attitude exemplifies the expectations one has in the Hispanic community, and the loyalty members have between one another. Research indicates that social norms are reinforced at an early age and children overtly and covertly learn a collectivistic value system emphasizing that family is prioritized over the needs of the individual (Calzada, 2010; Coulter et al., 2010; Livas-Dlott et al., 2010).

In a study conducted by Chavez-Corell et al. (2014), the influence of acculturation, Hispanic cultural values of *familismo,* and ethnic identity in predicting depressive symptoms was examined. The sample population consisted of 32 men and 66 women who self-identified as Hispanic. The individuals ranged in age from 65 to 97 years and identified as Mexican ($n$ = 39), Puerto Rican ($n$ = 28), Cuban ($n$ = 4), South American ($n$ = 10), Hispanic ($n$ = 9), Other ($n$ = 5) and 3 participants did not respond. The results of the of a multiple regression analysis indicated that the three components of ethnic identity are not only present among older adults, but ethnic identity affirmation and ethnic identity resolution were significantly related to lower depressive symptoms. This study established that ethnic identity is significant in a Hispanic person's life, and it plays an essential role in the daily living and the quality of life for older Hispanic adults. Multiple regression analyses revealed that physical functioning, acculturation, *familismo,* and ethnic identity were significantly related to positive depressive symptoms. The results of the study also indicated that individuals who self-reported a higher score for *familismo* also reported positive mental health outcomes (Chavez-Corell et al., 2014).

### *Acculturation and Mental Health*

Cultural values are an important part of Hispanic families and communities. They help group members sustain their culture of origin when immigrating to the United States. Family, respect, education, religion, and support help in transitioning into a new society. *Acculturation* is the ongoing process of social and psychological change, that occurs when two or more cultures come into contact (Castillo et al., 2008; Lopez-Class et al., 2011; Sue et al., 2015). Acculturation can be defined in different ways depending on the studies, perspectives, publications, and frameworks (Glass & Owen, 2010), because acculturation is a continuous process in which the acculturating group entertains unique cognitions, behaviors, and lifestyles. These approaches create a continuum of potential acculturation statuses, ranging from separation to assimilation to biculturalism (Castillo et al., 2008; Lopez-Class et al., 2011; Sue & Sue, 2015).

*Separation is* the rejection of the culture of origin and acceptance of the dominant culture (Glass et al., 2010; Leidy et al., 2010; Sue & Sue, 2015). *Biculturalism* describes fluency in both cultures with moderate to high level of participation in both cultures (Glass et al., 2010; Leidy et al., 2010; Sue & Sue, 2015). Bicultural competence has been suggested to be an important factor affecting mental health. Hence, when an individual identifies as bicultural, they tend to balance their unique community traditions with those of the majority culture of the United States (Carrera & Wei, 2014; Glass et al., 2010; Leidy et al., 2010; Miranda et al., 2006; Smokowski et al., 2008). Bicultural competence involves being knowledgeable of cultural norms of both cultures and weighing their importance, not only in how it affects the individual but to their family and friends

(Gonzalez, 2018). This is significant due to conflicts within the family that contribute to acculturative stress. Acculturation is believed to be a step towards assimilation, which involves shaping and adopting critical aspects of psychological functioning such as core beliefs, language, attitudes, and behaviors (Miville & Constantine, 2006). Therefore, the higher cultural congruity, lower perceived social support from family and higher perceived social support from significant others were found to be significant predictors of positive help-seeking attitudes (Milville et al., 2006). However, Milville et al. (2016) found that the higher levels of acculturation into the dominant society, and lower perceived family and social support from friends was an indication of greater help-seeking behavior among Mexican Americans (Milville et al., 2006; Miranda et al., 2006).

Individuals who are acculturated to the United States often report using English as their dominant language, having food preferences outside their community, prioritizing their needs over their needs of the family, and feeling a sense of solidarity with the United States (Schwartz et al., 2010). However, some individuals continue to practice beliefs from their native culture (Miranda et al., 2006; Smokowski et al., 2008). Acculturation conflicts are experienced when messages from one culture of origin and mainstream society become difficult to reconcile and require significant change in psychological functioning (Capielo et al., 2015; Smokowski et al., 2008). These conflicts include discrimination, limited access to education, jobs, social support, and language barriers (Garcia et al., 2010; Sue et al., 2015; Torres, 2010; Torres et al., 2012).

### *Familismo*

*Familismo* is a cultural value that is based on a collectivistic view that focuses on family values and family well-being instead of personal opportunities. Familismo is a multidimensional construct that can be exhibited attitudinally (belief in interconnectedness) and carried out behaviorally (e.g., family contact; Lopez-Tamayo et al., 2016; Ojeda & Pina-Watson, 2013; Smith-Morris et al., 2013). There is a strong emphasis on family as the primary source of an individual's identity and protection against life's adversities. The family model includes grandparents, aunts, cousins, and people who are not biologically related to the immediate family; there is strong identification and attachment of Hispanics with their nuclear and extended family (Ayon et al., 2010; Lopez-Tamayo et al., 2016; Smith-Morris et al., 2013). Sabogal et al. (1987) defined the familismo value system as including (a) familial obligations (e.g., providing material and emotional support to family members), (b) perceived support from the family (e.g., family reliably provides help and support to solve problems), and (c) family as referents (e.g., decisions and behavior are based on conforming and consulting with family members). Calzada et al. (2014) added shared living, shared daily activities, shared child rearing and support for immigration as the core tenets to *familismo*. These components help strengthen family bonds, and are a means of a social support system, emotional comfort and support, care of elders, pregnant women, and young children, and parental involvement in the lives of their children, (Campos et al., 2014; Ojeda et al., 2013; Smith-Morris et al., 2013). Family-centeredness is a source to overcome stressors faced by Hispanics in their daily living. The Pew Hispanic Center (2012) reported that

Hispanics indicate experiencing discrimination. Discrimination-related stressors have been reported to have a profound impact on mental health (Sue & Sue, 2015; Torres, 2010). The result of discrimination has been indicated to be a risk factor for depression, isolation, alcohol abuse, substance abuse, and psychological wellbeing (Arellano-Morales et al., 2016; Nadal et al., 2014; Sue et al., 2015; Torres, 2010).

Research indicates that familial support for material and emotional support contributes to the psychological well-being of group members, especially for recently immigrated Hispanic who had family cohesion before immigration. Ojeda and colleagues (2013) surveyed 143 Hispanic immigrant men who worked as day laborers in central Texas. The participants reported immigrating from Mexico (66.4%), Honduras (14.7%), Guatemala (9.8%), El Salvador (7.0%), Uruguay (0.7%), Peru (0.7%), and the Dominican Republic (0.7%). They ranged from 18 years to 73 years with a self-reported income range from $0 to $3,000. The participants also reported that their families stayed behind in their country of origin. Their immigration status was reported by 78% as undocumented and most of the participants were monolingual Spanish speakers. The researchers examined how cultural values impacted psychological well-being by assessing *familismo* and the adverse effects of discrimination. The results indicated that perceived discrimination or discrimination was related to lower life satisfaction. The cultural values of *familismo* and spirituality were closely tied to life satisfaction which has been consistently associated with positive mental health of Hispanic (Ayon et al., 2010; Falicov, 2014; Ojeda et al., 2013).

To test *familismo* as a buffer for negative mental health symptoms, Kennedy and Ceballo (2013) asked ninth grade students living in a high crime neighborhood to recollect the times in which they were subjected to community violence. They took the data and measured the student's depressive and posttraumatic stress symptoms, and their level of *familismo*. The results indicated a significant interaction between witnessing violence, *familismo,* and depressive symptoms. The adolescents who endorsed low levels of *familismo*, also had a stronger relationship between witnessing violence and depression (Kennedy & Ceballo, 2013). Individuals who endorsed a higher ranking for *familismo* reported positive mental health outcomes in comparison to non- Hispanic Whites (Chavez et al., 2014).

While Hispanic have traditional ties to cultural values, it is likely that they will experience levels of distress when faced with a traumatic event. Additionally, Hispanic's core values shape their general perception of mental health, as well as their help-seeking attitudes toward psychotherapy. It is very common for Hispanics to seek help and confide their personal and emotional problems to family members. Hispanics also use *spiritualismo* as a coping mechanism by attending religious activities, engaging in prayer, participating in confession, and trustfully sharing their personal conflicts with God instead of seeking help from a professional (Welsch, 2013). Therefore, *spiritualismo,* potentially places Hispanic s at a higher risk for the development of PTSD (Welsh, 2013).

***Respeto***

Another core value that is important to the Hispanic community is *respeto*. This cultural value is defined as unconditional respect and deference to elders and authority

figures (Calzada et al., 2010; Calzada et al., 2012; Ojeda et al., 2011). This value is instilled in a child's early years and is reinforced throughout the individual's life (Calzada et al., 2010; Calzada et al., 2012; Sue et al., 2015). *Respeto* correlates to knowing the level of courtesy and appropriateness that is required in each situation as it relates to an individual's age, sex, and social status (Calzada et al., 2010). Obedience, deference, and decorum in public behavior are expected of individuals to show *respeto* (Calzada et al., 2012). Hispanic families view respeto as an important aspect of their culture and an extension of their family values (Calzada et al., 2012; Calzada et al., 2010). Moreover, this will help to sustain harmony within the family (Calzada et al., 2012; Calzada et al., 2010). *Machismo* is a multidimensional component of *respeto* that has deep roots in the Hispanic culture (Herrera et al., 2012).

Machismo relates to the typical Hispanic males who are the traditional heads of household (Glass et al., 2010). The traditional definition of machismo includes dominance, hostility, and interpersonal dogmatism (Herrera et al., 2012) and can be linked to the term "breadwinner" (Glass et al, 2010 p. 253). According to Glass and Owen (2010), machismo is what comprises masculine norms, and includes sexism, aggressive attitudes, hypermasculinity, and interpersonal dogmatism" (p. 253). *Caballerismo* is a dimension of machismo that includes egalitarian beliefs, affiliation, positive family relations, and empathy (Arciniega et al., 2008; Glass et al., 2010; Torres et al., 2010).

Calzada et al. (2010) examined the cultural values of Latina mothers of young children. Since respeto is a primary Hispanic value, the study aimed to examine how

*respeto* is manifested in young children. The participants in the survey included 48 female primary caregivers of children ages 3 to 6 who lived in a large Northeastern city of the United States. Seventeen of the participants were identified as Mexican and thirty-one were Dominican. The Mexican participants were born in Mexico and had been living in the United States on average fewer than 10 years. The language spoken at home was identified as Spanish. Eighty-two percent of the women were married or living with the biological father of their children. The Mexican participants were the biological mothers of the children and 47% of the women had not completed a high school education, with the mean age of the women being 31 years. Eighty-eight percent of the women did not work outside of the home. The average yearly household income was $17,500 (Calzada et al., 2010).

The other group consisted of twenty-four Dominican-born mothers who had been living in the United States for an average of 15 years. Within this group, seventy-one percent of the Dominican-born women preferred to speak Spanish at home, seventeen percent preferred to speak English, and the rest had equal preference for English and Spanish. Approximately 42% of the mothers were married or living with their significant other. Sixty-three percent of the mothers did not work outside of the home, had earned some college credit hours, and 21% of the women had not completed a high school education. The annual yearly income was less than $16,000. Twenty of the participants were biological mothers, and four were grandmothers who were the primary caregivers for the children. The average age for the women was 35 years (Calzada et al., 2010).

Seven of the Dominican participants in this study were born in the United States. Half of the women in this group spoke Spanish and the other half preferred to speak English at home. Fifty seven percent of the mothers reported being married or living with a significant other. Forty-three percent of the mothers worked outside of the home. All the participants completed a high school education, or its equivalent, and 86% had attended several years of college. The average household income was $33,600. All the U.S. born Dominican participants were the biological mothers and their average age was 28 years (Calzada et al., 2010).

The results of the study indicated that all participants were highly enculturated, which is the process by which people learn the requirements of their surrounding culture and acquire values and behaviors appropriate or necessary in that culture (Webster, 2017). The Mexican mothers were noted to have a higher level of acculturation, which is the cultural modification of an individual, group, or people by adapting to or borrowing traits from another culture (Webster, 2017). *Respeto* was noted to be the most salient cultural value for the Mexican and Dominican mothers along with *familia* and religion. The groups indicated that *respeto* was the foundation for successful child development. *Respeto* was taught to children by their mothers, with behavioral expectations applicable across all situations with all social contacts regardless of age, gender, or degree of acquaintance (Calzada et al., 2010).

Researchers have examined the link between acculturation and mental health for Hispanics. According to Schwartz et al. (2010) Hispanics born in the United States or who have spent a considerable amount of time in the United States are more likely to be

diagnosed with a psychiatric disorder than Hispanics who were born abroad or who are recent immigrants (Schwartz et al., 2010). Lawton and colleagues (2018) indicated that there is an association between higher levels of acculturation or orientation to U.S. culture and higher rates of externalizing problems in Hispanic adolescents. Also, higher rates of substance and alcohol use have been correlated with elevated levels of acculturation for Hispanic individuals born in the United States. In addition, higher levels of acculturation or orientation to U.S. culture are linked to internalizing problems for Hispanic girls, such as higher depressive symptoms, eating disorders, and suicide attempts (Schwartz et al., 2010).

According to Hirai et al. (2015), the level of acculturation and enculturation plays a role in treatment-seeking behaviors. Researchers (Lorenzo-Blanco & Delva, 2012; Rojas-Vilches et al., 2011) have noted that less acculturated Latinos are not as likely to seek conventional psychological services. Lorenzo-Blanco and colleagues (2012) indicated that mental health service utilization is influenced by cultural values by Hispanics, including Mexican-American Hispanics. This suggests that the more acculturated Latinos prefer conventional psychological treatment, whereas less acculturated Hispanics are likely to prefer culturally relevant religious treatment (Lorenzo-Blanco et al, 2012).

**Hispanic Veterans With PTSD**

Over two million troops have been deployed to the conflicts in Iraq and Afghanistan since September 2001 (Stecker et al., 2013). This continuous warfare has negatively impacted military service members from numerous ethnicities and

socioeconomic backgrounds (Department of Veterans Affairs, 2014). The U.S. Department of Veterans Affairs (2014) indicated that Hispanics represent 18% of U.S. troops deployed to OEF, OIF, and OND.

While military personnel have unique principles that they are required to follow, and research has been conducted and interventions have been in place to treat soldiers who are identified with PTSD, there is a lack of research that has been conducted to explore the many challenges that minorities face before, during enlistment, and post-combat (Harris, 2014; Leal, 2008). Whereas Hispanics have equivalent or higher lifetime prevalence of PTSD when compared to non-Hispanic Whites (Alcantara et al., 2013; Loo, 2016), they are less likely to access mental health care services in comparison to non-Hispanic Whites (Harris, 2014; Lopez et al., 2012; Mulvaney-Day et al., 2012; Valentine et al., 2014).

A systematic review of the literature on Hispanic and non-Hispanic group differences in conditional risks for PTSD was conducted by Alcántara et al. (2013). The articles that examined PTSD prevalence differed on the period assessed (i.e., 30-day, 6-month, 12 month or lifetime prevalence). Of the 28 articles, 26 examined Hispanic and non-Hispanic between-group differences in conditional risk for PTSD. Six of the articles reported statistically significant differences in conditional risk for PTSD which are defined as prevalence, onset, persistence or severity of sociodemographic factors; suggesting that once Hispanics are exposed to a traumatic event, they are significantly more likely to meet criteria for PTSD than non-Hispanic Whites and African Americans.

Using the data from the NVVRS, three articles reanalyzed data and showed that Hispanic male Vietnam theater veterans exhibited elevated rates of current PTSD relative to non- Hispanic White male veterans. In examining differences across Hispanic subgroups and between these subgroups and non- Hispanic Whites, Alcántara et al. (2013) found that both Puerto Rican and Mexican American veterans had elevated rates of PTSD in comparison to non- Hispanic White veterans after adjusting for pre-military (education, childhood poverty) and military factors (e.g., degree of war zone experience). They also reported that Hispanics had higher rates of PTSD based on self-reported symptom checklists, but not on actual diagnosis based on clinician -administered diagnostic interviews (Alcántara et al., 2013).

Twenty-four of the articles explored whether there were differences between Hispanics and non- Hispanics by racial/ethnic variation in conditional risk for prevalence, onset, persistence, or severity between Hispanics and non- Hispanics. Fourteen of the articles reported information on social disadvantage. However, only 8 of the 14 articles tested whether education influenced PTSD probability, with three supporting a negative association between level of education and conditional risk for PTSD and five finding a null main effect for education (Alcantara et al., 2013).

Four of the articles reviewed included acculturation-related measures (e.g., nativity) in the analyses of conditional risk for PTSD, comparing Spanish-speaking or immigrant Hispanics with their English-speaking or US-born counterparts. Three of the articles that examined PTSD onset discovered increased odds of PTSD onset among US-born relative to foreign-born participants following musculoskeletal injuries. In cases

where Spanish-speaking Hispanics were exposed to personal trauma and neighborhood trauma, PTSD rates were reported to be higher than African Americans and non-Hispanic Whites (Alcantara et al., 2013).

The cultural values of *familism* and *fatalism* were also examined by Alcantara et al. (2012) as commonly found among Hispanics, and their function as potential mediators in the relationship between Hispanic ethnicity and PTSD due to their influence on PTSD coping strategies. Fatalism was measured as the extent to which respondents positively endorsed coping strategies based on an external versus an internal locus of control. Familism was measured as the extent to which respondents positively endorsed the view that aging parents should live at home and children should live at home until marriage. Alcantara et al. (2013) reported that fatalism mediated the onset of PTSD by modifying the relationship between avoidance and language between Spanish -speaking Hispanics and English-speaking Hispanics. Familism was found not to be a significant mediator due to the postulated relationship between this cultural value and the use of passive coping strategies such as wishful thinking and self-blaming (Alcantara et al.,2013).

Fatalism, the belief that outcomes are predetermined, has been associated as a risk factor for PTSD in Hispanics as reported by Hall-Clark et al. (2017). Hispanics with PTSD reported higher levels of somatic complaints, such as pain or gastrointestinal distress (Jankowski, 2016). They reported feelings of being sad, nervous, or angry (Eisenman et al., 2008; Hall-Clark et al., 2017). Hispanics reported higher levels of stress, avoidance, and lower levels of numbing than non-Hispanic Whites (Hall-Clark et al., 2017; Pole et al., 2005).

In a longitudinal population-based cohort study conducted by Galea et al. (2008), ongoing stressors and traumatic event experiences were both contributing factors of PTSD. However, ethnicity and sex were established to be associated with PTSD independent of the variables. While women were at a greater risk of PTSD than men, in general, Hispanics were at a greater risk of PTSD than other racial or ethnic groups.

Hispanic cultural values and the function they play in the relationship between ethnicity and PTSD have been shown to be a contributing factor for developing PTSD (Alcantara et al, 2013; Duke et al., 2011; Ortega & Rosenheck, 2000). While the studies were limited, more research needs to be conducted to broaden the scope of this area of research.

**Treatment of PTSD for Hispanic Veterans**

Extensive research has been conducted to determine the efficacy of psychological interventions for PTSD. According to the National Center for PTSD (2017), effective treatments for PTSD are psychotherapy or medication. The recommended treatments with the most research support are trauma-focused psychotherapies. These treatment modalities use different types of techniques to help the individual process the traumatic experience. Some therapies involve visualizing, talking, or thinking, about the traumatic memory. The trauma-focused psychotherapies with the strongest evidence are prolonged exposure therapy (PE), cognitive processing therapy (CPT), eye movement desensitization and reprocessing (EMDR), and antidepressants (e.g., Sertraline-Zoloft, Paroxetine-Paxil, Fluoxetine-Prozac, and Venlafaxine-Effexor). Mental health providers working with clients with PTSD implement psychological interventions (e.g., PE, CPT,

and EMDR, etc.) in their treatment planning (National Center for PTSD, 2017; Sharpless & Barber, 2011). While there are many veterans in the VA system with a diagnosis of PTSD, there is a lack of literature that focuses specifically on treatment outcomes for Hispanic veterans with PTSD (Asnaani et al., 2013).

To determine whether there are racial or ethnic disparities in treatment provision at the Veteran Administration, Spoont et al. (2017) surveyed the receipt of group and individual psychotherapy services among racial and ethnic groups for six months after being diagnosed with PTSD. The data was collected from a cohort of 6,884 veterans diagnosed with PTSD. PTSD symptom severity was assessed using the PTSD Checklist. Mental health quality of life and physical health quality of life was evaluated with the Veterans 12 Item Short-Form Health Survey. (Spoont et al., 2017). The results of the study found that Native American, African American, Asian/Pacific Islander, and White veterans had similar probabilities of receiving psychotherapy six months after being diagnosed with PTSD (Spoont et al., 2017). However, Hispanic veterans had a lower probability than White veterans of receiving individual and/or group psychotherapy in a mental health setting (Spoont et al., 2017). The lower odds could not be attributed to differences in the need for treatment, belief about psychotherapy, or access barriers, but they do indicate treatment disparity for Hispanic veterans (Spoont et al., 2017). This treatment disparity could be attributed to the VA clinics that that are not providing the psychotherapy services for their Hispanic patients who have been diagnosed with PTSD (Spoont et al., 2017).

When comparing individual therapy and group therapy for veterans with PTSD, Sripada and colleagues (2016) examined a sample of 35,144 VA patients who had been diagnosed with PTSD during a subspecialty clinic visit in 2010. Treatment modality sessions were identified using CPT codes for individual and group therapy. Only one visit per day was counted within 14 weeks of the initial psychotherapy session. A minimal of eight sessions of psychotherapy is defined as beneficial by the VA for the purpose of a performance measurement (Sripada et al., 2016). The results of the study found that the veterans who received group therapy received more sessions within the 14-week period (Sripada et al., 2016). This is consistent with research conducted in other VA specialty mental health clinics (Burnett-Ziegler et al, 2012; Mott, Hundt, et al., 2014). However, the study also found that Hispanics were less likely than non-Hispanics to receive adequate psychotherapy, equitable access to psychotherapy (Sripada et al., 2016).

While exposure therapy has proven to be an effective treatment for PTSD for a variety of populations, including veterans (National Center for PTSD, 2017), Yoder et al. (2011) conducted a study to examine the effects of therapy and determine its outcome among veterans of different eras. The sample consisted of 61 veterans of Operation Iraqi Freedom, 34 from the Vietnam War and 17 from the Persian Gulf War who had received outpatient services at a Veterans Affairs Medical Center between September 2008 and August 2010. The sample was comprised of 58% Caucasian, 38% African American and 4% Hispanic participants. All the veterans had been diagnosed with PTSD and had completed a pre- and post-treatment survey. All the participants had responded to the PCL-M and the BDI-II. The participants attended 90-minute weekly sessions of PE. The

results of the study indicated that there was improvement over the course of treatment even though there was a difference in the number of sessions attended by OEF/OIF/OND ($M$ = 8.20) and Vietnam ($M$ = 10.2) veterans Yoder et al. (2011).

Another study was conducted to review outcome data on 65 OEF/OIF veterans treated with Prolonged Exposure (PE), which is a manualized 90- minute weekly treatment session at an urban VA medical facility (Tuerk et al.,2011). Patients were all diagnosed with combat-related PTSD and treated with individual psychotherapy sessions as part of their clinical care. PE is a treatment protocol that consists of psychoeducation, self-assessment of anxiety, repeated *in vivo* exposure to situations avoided because of distress, and repeated prolonged exposure to traumatic memories (Tuerk et al., 2011).

The PCL-M and the BDI-II were administered to measure the intervention outcome (Tuerk et al., 2011). Veterans were administered pre- and post-treatment measures, as well as measures every two weeks during their treatment. The sample size was comprised of 65 OEF/OIF Veterans: with Female (11%), African American (39%), White (57%), and Hispanic (5%), with a mean age of 31.7 years. Veterans who had a service-connected disability or were in the process of applying for a disability rating for PTSD comprised 67% of the sample. Tuerk et al. (2011) reported that 43 (66%) of the veterans met criteria as completing the treatment plan. The average number of sessions for treatment completers was 10, with the mean number of sessions for the sample being 7, with 52 veterans (80%) participating in 10 or fewer sessions, 61 patients (94%) attending 15 or fewer sessions, and four veterans (6%) attending between 16 and 25

sessions. Twenty-two veterans (34%) did not complete at least six sessions and were classified as non-completers (Tuerk et al., 2011).

The results of the study indicated that mean pre- and post-treatment PCL-M scores for the forty-three treatment completers were 61.80 % and 36.66% indicating symptom amelioration (Tuerk et al., 2011). Fifty percent of the treatment completers sample scored 30 or below on the PCL-M post-treatment, which is well below the clinical range (Tuerk et al., 2011). BDI-II pre- and post-treatment mean scores for the treatment completer sample were 28.08% and 15.38% indicating a reduction in symptoms (Tuerk et al., 2011).

When looking at patient characteristics, age, gender, and service-connected disability rating were not statistically significant predictors of treatment response (Tuerk et al., 2011). However, race had an impact on PCL-M scores, as treatment-seeking Black and Hispanic OEF/OIF veterans scored higher than treatment-seeking White OEF/OIF Veterans on pre and post assessment measures (Tuerk et al., 2011).

The outcome of the study provided initial support for modification and the preference of OEF/OIF veterans for shorter treatment frames (Tuerk et al., 2011). It was reported that veterans continued to improve at a slower rate after the fifth session, even though a longer treatment plan was noted to be appropriate to completely ameliorate the PTSD symptoms (Tuerk et al., 2011).

Group therapy treatment barriers and preferences were examined by Kracen and colleagues (2013) among 110 OEF/OIF veterans diagnosed with PTSD at a Veterans Health Administration facility in the Midwest. The sample was comprised of Hispanic

and Non-Hispanic males under the age of 40 who had been deployed more than one time in the Army. The majority (75%) of the veterans reported having a service-connected disability. The OEF/OIF veterans in the study reported a preference for individual therapy over participation in group therapy which suggests that the veterans were apprehensive about expressing their emotions, being misunderstood, and not liking the composition of group therapy. Seventy-nine percent of veterans who participated in individual therapy reported a favorable experience (Kracen et al., 2013). Thirty-two percent of veterans in group therapy endorsed their experience as favorable (Kracen et al., 2013). When looking at the barriers to treatment, surprisingly, only organizational barriers were endorsed by the veterans. These barriers dealt with concerns about group therapy, expressing their emotions, being misunderstood, and not liking the group composition (Kracen et al., 2013).

In a systematic review of peer-reviewed research of Hispanic veterans diagnosed with PTSD, Pittman (2014) analyzed and evaluated cultural issues. Initially, a total of 290 potential sources were screened for inclusion. Of those, 143 articles did not relate exclusively to Hispanic, 45 did not include results for veterans, 42 concentrated on mental health problems, but not PTSD, 22 were theoretical articles that lacked research results and nine were not peer reviewed. The final sample consisted of 29 articles. All of the articles were quantitative, and 24 were correlational. Four of the studies used a causal comparative design and one was a case study. The total sample size range ranged from 18 to 732,085 veterans (4.2-100% Hispanic) as reported by Pittman (2014). Twenty of the articles were assessment-related, nine were treatment-related, and three focused on

treatment results for one Hispanic veteran each. Sixteen articles were obtained from the Department of Veterans Affairs (VA) inpatient or outpatient clinics or clinic data, and thirteen studies were analyzed data from the National Veterans Readjustment Study (NVVRS). The assessment tools that were used to measure PTSD were the Structured Clinical Interview for DSM (SCID), the PTSD Checklist (PCL), diagnosis from clinician or chart, or the Mississippi Scale for Combat Related PTSD. Four articles used the Clinician Administered PTSD Scale (Pittman, 2014).

The articles that provided the rates and severity of PTSD in Hispanic veteran samples, factors that related to PTSD co-morbidity, and symptom presentation or PTSD correlates, were categorized as assessment-related. Twelve studies found that Hispanic veterans have significantly higher levels of PTSD than non- Hispanic White veterans (Duke et al., 2011; Pittman, 2014). The prevalence rates for Hispanics in the studies ranged from 27% to 33% for Hispanic veterans in comparison to 9% to 15% for non-Hispanic White veterans. The treatment-related category consisted of articles dealing with treatment outcomes in Hispanic veteran samples. All of the articles were reviewed for Hispanic cultural factors such as attitudes, values, beliefs, and behaviors (Pittman, 2014).

Two studies did not report significant differences between Hispanic and non-Hispanic White veterans (Pittman, 2014). Three studies found non-significant differences between Hispanics and other groups when administered clinician -administered PTSD measures compared to and compared to checklists or self-report tools (Pittman, 2014).

Six of the studies indicated specific symptom differences for Hispanic veterans with PTSD (Pittman, 2014). The researcher found that Hispanic veterans had higher intrusive symptoms, hyperarousal, guilt, avoidance, and psychotic symptoms associated with trauma in comparison to non- Hispanic White veterans (Pittman, 2014).

The study investigated cultural factors (e.g., acculturation level, bilingual interviewers, expressive style or Hispanic -specific gender role concepts). Family relationships, difference in language fluency, feelings of being misunderstood and respected, racism, trauma exposure were found to impact the higher prevalence in Hispanics (Duke et al., 2011; Pittman, 2014). The difference in PTSD prevalence rate between Hispanics and non- Hispanic Whites was accounted for by lower AFQT scores, lower education level, and by younger age entering the military (Duke et al.,2011; Pittman, 2014). A second study explored *machismo* views, restricted affect, *chauvinism,* and aggression, which correlated with higher PTSD symptoms (Pittman, 2014). Traditional machismo was compared to *caballerismo*, which is characterized by emotional connectedness, family nurturing, ethnic heritage pride, and respectful conduct (Pittman, 2014). The results of this study found that caballerismo was not associated with PTSD (Pittman, 2014).

The treatment-related studies explored access and utilization of services. According to the literature review by Pittman (2014), Hispanic veterans with PTSD are more likely than non- Hispanic White veterans to receive second-generation antipsychotics and other psychotropic medication. Hispanic veterans were found to receive treatment in traditional long-term inpatient programs, be in treatment groups

longer, spend more time in abreaction treatment, which focuses on reliving a traumatic event and going through the emotions associated with the trauma in order to heal (Barabasz & Barabasz, 2013). Hispanic veterans report being more satisfied with their treatment when compared to non-Hispanic White veterans (Pittman, 2014).

Three studies reported treatment results for Hispanic veterans with PTSD. In one of the case studies, Exposure, Relaxation and Rescripting Therapy (ERRT) was described as the treatment modality being implemented with Hispanic veterans to reduce PTSD symptoms (Pittman, 2014). The study found that moderate reductions over the course of treatment (Pittman, 2014). The second study included eighteen Hispanic veterans who had received cognitive processing therapy (CPT) in a residential setting, and results indicated a clinically significant decrease in symptoms. When reviewing VA treatment data, prolonged exposure (PE) therapy, and not cognitive processing therapy (CPT) was reported to have decreased PTSD symptoms to below clinically significant levels for Hispanic veterans (Pittman, 2014).

While studies have examined the effectiveness of PE therapy as a single therapy and in combination with other treatments, Nacasch et al. (2011), researched the efficacy of Prolonged Exposure (PE) therapy in combat and terror related PTSD. After meeting eligibility criteria, 30 patients from the VA who were under outpatient psychiatric care qualified to participate in the study. The Mini-International Neuropsychiatric Interview, PTSD Symptom Scale-Interview, Beck Depression Inventory, State-Trait Anxiety Inventory and Posttraumatic Cognition Inventory were administered before and after a 12-month follow-up. PE individual sessions were scheduled on a weekly basis lasting 90

to 120 minutes. The results of the study indicated that the short-term and the long-term benefits of PE on PTSD symptomology were consistent across a variety of populations with different characteristics, sex, and cultures (Nacasch et al., 2011).

While there is research supporting the efficacy of psychotherapy treatment modalities for PTSD, there is a lack of research specifically examining Hispanic veterans. Research indicates that Hispanic veterans are less likely that White veterans to receive psychotherapy services (Duke et al., 2011; Nacasch et al., 2011). The Hispanic veterans who did receive psychotherapy services, were more likely to receive group therapy than individual therapy in comparison to White veterans (Pitman, 2014).

## Summary

This literature review indicates that combat veterans may experience mental illness within a year of returning from the warzone and require unique treatment and services when compared to non-military populations (Tuerk et al., 2011; Alcantara et al., 2013; Asnani et al., 2017). Veterans diagnosed with PTSD report higher levels of distress in comparison to veterans without PTSD. There is a lack of longitudinal studies examining the relationship between ethnicity, acculturation, and the development of PTSD among combat veterans. The studies that were located and reviewed in this chapter used cross-sectional designs. This study aimed to fill the gap in existing research regarding Hispanic veterans in the United States who suffer from PTSD, and the treatment options available to them.

# Chapter 3: Research Method

Chapter 3 contains four sections. The study's independent and dependent variables, research design and research questions are identified and discussed in the first section. The second section contains explanations of the study's population, sample size and method, procedures for participant recruitment, instruments used to collect data, and data analysis plan. In the third section, ethical procedures, including, but not limited to, those related to the collection of data and confidentiality are explained. The final section provides a chapter summary and an introduction to Chapter 4.

## Purpose of the Study

The purpose of the study was to explore self-identified outcomes of three treatment modes and how these correlates with acculturation for Hispanic veterans diagnosed with PTSD at an outpatient clinic and community outreach agencies for veterans in a large southwest city in the United States. Examining the treatment modalities in relation to acculturation levels may provide information and an increased awareness and understanding of how Hispanic culture and values play a role in therapeutic outcomes (Leininger, 2002). Despite a long history of Hispanics serving in the military, there is a paucity of research addressing the mental health needs of this population.

This study utilized the PCL-5, the GWB and the BAS for Hispanics to assess post trauma symptomology, mental health and well-being, and the level of bidimensional acculturation. At the beginning of the project, participants were asked to complete the demographic survey, PCL-5, BAS, and GWB. I reviewed the information and determined

which participants are at the beginning of their therapy sessions to collect baseline data. After 8 weeks of therapy, the participants were contacted via email or by phone to complete the PCL-5 and GWB survey instruments online. To address the research questions, I conducted a mixed model ANOVA and regression analysis.

## Research Design and Rationale

This study had a quantitative, quasi-experimental survey design. Quantitative research is consistent with investigating therapeutic outcomes and acculturation levels (Ehlers et al., 2013; Weathers et al., 2013). In a quasi-experimental design, the sample of participants are not randomly assigned into control and experimental groups (Bordens & Abbott, 2008). The assignment of the participants is typically made without control of the researcher.

## Methodology

### Population

According to the U.S. Census Bureau (2012), the city along the Texas-Mexico border where the proposed study took place has a population of approximately 237,256, with 95.6% of Hispanic ethnicity. The Webb County Veterans Service Office (2017) reports over 5,508 veterans with 18.4% (1,013) serving during the second Gulf War (9/2001 or later), which includes OEF (2001-2011), OIF (2003-2011), and OND (2010-2011). Many of these veterans were deployed numerous times during OIF, OEF, and OND.

The participants in this study consisted of Hispanic veterans who served during OEF, OIF and OND who voluntarily completed anonymous surveys. These Hispanic

veterans have been diagnosed with PTSD and are utilizing area outpatient clinics and community outreach agencies for mental health services. There were no other selection criteria of the participants other than that they are Hispanic veterans who have been diagnosed with PTSD after serving in OIF/OEF/OND.

**Sampling and Sampling Procedures**

The participants in this study were Hispanic military service veterans who voluntarily completed an anonymous survey. Letters of support from the outpatient clinics and community outreach agencies for veterans have been obtained. The inclusion criteria for the participants were that they are veterans of OEF/OIF/OND military service who have been diagnosed with PTSD and are receiving individual behavioral therapy, group behavioral therapy or a combination of the two behavioral therapies.

Applying the inferential analyses to the study, it was necessary to include an adequate sample. G*Power 3.1.7 was applied to determine the minimum sample size requirement (Faul et al., 2014). I used mixed model ANOVAs and multiple linear regressions for this research. The multiple linear regression has the larger sample size requirement. For the regression, three predictor variables were examined. A medium effect size ($f$ = .15) and a generally accepted power (.80) were incorporated. It was determined that a minimum sample size of 77 participants would be sufficient for the data collection.

**Procedures for Recruitment, Participation, and Data Collection**

Flyers were disseminated at the outpatient clinics and community outreach agencies for veterans. The flyers provided information about the study, instructions for

accessing the study survey online and resources if a participant needed additional support after completing the survey (see Appendix F). Veterans completed the PCL-5, GWB, and BAS via Survey Monkey (see Appendices B-D).

**Data Collection Procedures**

The first step in the data collection process was to obtain permission from the outpatient clinic and local psychological community agencies. I sought approval for the study from the Walden University Institutional Review Board (IRB). Following IRB approval (09-04-20-0153486), the survey was posted online through SurveyMonkey, after which volunteers could access and participate in the study. The study began with presentation of the consent form followed by the sociodemographic questionnaire and three instruments: the PCL-5, GWB, and BAS.

Participation in the study was voluntary. I maintained confidentiality as stipulated on the consent form; to protect the privacy of the participants. The consent form outlined the purpose of the study and indicated potential benefits and risks of participation. Participants were required to indicate consent before beginning the survey process. Only surveys indicating deployment during OIF/OEF/OND, and current involvement in treatment were included in the data analysis. Data collection continued until the desired numbers of participants completed the surveys. Surveys were self-administered online and completed without my assistance. The participants were allowed as much time as necessary to complete the consent form and instruments. It was expected that the entire process would take approximately 20 minutes to complete. At the beginning of the project, participants were asked to complete the demographic survey, PCL-5, BAS and

GWB. I then reviewed the information and determined which participants were at the beginning of their therapy sessions to collect baseline data. After 8 weeks of therapy, I contacted the participants via email or by phone to complete the PCL-5, and GWB survey instruments. Upon request, participants could obtain a copy of the results of the survey questionnaires and recommendations.

## Instrumentation and Operationalization of Constructs

### *PCL-5*

The PCL-5 is an instrument developed by Weathers et al. (2013) with the National Center for PTSD Behavioral Science Division, a part of the Boston Veterans Administration. This assessment is a 20-item questionnaire that was revised for the current DSM-5 symptom criteria for PTSD, and is available in the public domain.

Examples of questions in the inventory are Question 1, “Repeated disturbing, and unwanted memories of the stressful experience?”; Question 3, “Suddenly feeling or acting as if a stressful experience were actually happening again (as if you were actually back there reliving it)?”; Question 5, “Having strong physical reactions when something reminded you of the stressful experience?”; Question 7, “Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?”; Question 9, “Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?”; Question 12, “Loss of interest in activities that you used to enjoy?”; Question 13, “Feeling distant or cut off from other people?”; Question 15, “Irritable(undefined) behavior, angry

outbursts or acting aggressively?"; Question 16, "Taking too many risks or doing things that could cause you harm?"; Question 17, "Being 'super alert' or watchful or on guard?"; Question 18, "Feeling jumpy or easily startled?"; Question 19, "Having difficulty concentrating?"; Question 20, "Trouble falling or staying asleep?"

Scoring of the PCL-5 is a Likert Scale; (0) *Not at all, (1) A little bit*, (2) *Moderately*, (3) *Quite a bit*, and (4) *Extremely*. For individuals to have a probable diagnosis of PTSD, criteria must be at least moderate in each of the four symptom groups. An individual must have one or more symptoms in Questions 1 to 5, either Questions 6 or 7, two or more from Questions 8 to 14, and two or more from Questions 15 to 20.A score of 38 or higher indicates a probable PTSD diagnosis in veterans (Weathers et al., 2013).

When measuring change in PTSD symptoms, a reduction of 5 points has been suggested to reflect a reliable reduction in symptoms indicating that it was not caused by chance, but that the individual is responding to treatment (National Center for PTSD, 2015). A 10- to 20-point reduction reflects clinically significant change (National Center for PTSD, 2015). The PCL-5 was tested in two independent samples of veterans who were receiving care at a Veterans Affairs Medical Center in which the prevalence of PTSD was high. Internal consistency coefficients were excellent (.96). Test-retest reliability, over 31 days was .86 (Bovin et al., 2016).

In a study conducted by Keane et al. (2014), which consisted of 507 Iraq and Afghanistan combat-exposed veterans, the DSM-5 model provided an adequate fit to the data baseline. Wortmann et al. (2016) endorsed these findings, concluding not only that

the PCL-5 proved to be a psychometrically sound instrument, but also that the subscales were proven to be a viable measure for traumatic and perceived stress.

Bondjers et al. (2015) evaluated the PCL-5 with parents of burn victims, hoping to establish a reliable and viable screening tool for the proposed population. The PCL-5 again proved to be a psychometrically sound instrument. In addition, the researchers indicated that the Cronbach's alpha values (0.56 and 0.77) of the participating parents (*N* = 62) were acceptable and proved that the PCL-5 DSM-5 model had high consistency and concurrent validity for this group as well (Bonders, et, al, 2015).

Miles et al. (2008) conducted a study to examine ethnic differences on instruments measuring PTSD. The researchers reviewed the English and Spanish PTSD Checklist-Civilian Version (PCL-C) and tested for differential item functioning using confirmatory factor analysis. The sample consisted of 304 self-identified Hispanics, who were not monolingual English speakers, and who were hospitalized for treatment of injuries from physical trauma. All the participants were assessed using face-to face structured interviews within a couple of days of injury. The post assessment was administered at follow-up assessments at 1 week, 4 weeks, and 8 weeks. The results of the study indicated a broad equivalence of the English and Spanish versions of the PCL-C (Miles et al, 2008).

***The GWB***

The GWB is a self-report questionnaire that assesses psychological well-being and is available in the public domain. The GWB is comprised of 18 items that yield a general indicator of well-being and six subscales that measure hypothesized dimensions

of well-being or mental health including anxiety, depression, positive well-being, self-control, vitality, and general health. The questions and answers provide indications of the presence and severity of symptoms that are taken into account when assessing general well-being and distress (Dupuy, 1977). The first 14 questions of the GWB use a 6-point rating scale that represents either intensity or frequency, while the remaining 11 questions use a 0-10 rating scale (Dupuy, 1977).

Longo et al. (2017; 2018) conducted studies to evaluate the GWB with Multigroup Confirmatory Factor Analysis (CFA) on a sample of 989. The study was conducted in three sections to determine whether the questionnaire was invariant across gender and age groups. The results of the study found that there was consistent evidence of dimensionality, measurement invariance, reliability, and validity (Longo et al., 2017; 2018). The GWB can produce a general well-being score as well as specific scale scores (Longo et al., 2017; 2018). The GWB was found to be an appropriate measure when used with an adult North American sample that is drawn from a general population (Longo et al., 2017; 2018).

The National Health Examination Survey (NHES) conducted a study at 100 different locations in the United States to validate the GWB. The sample population consisted of 6,913 individuals ages 25 to 74 years. The researchers indicated an internal consistency coefficient of 0.93 which was of similar magnitude in three other independent studies. After 3 months, retesting indicated reliability coefficients of 0.65, which was comparable to those of other mental health tests (Chassany et al., 2004). The GWB's structure and content was established to provide a more comprehensive

operational measurement of general psychological well-being than other tests (Chassany et al., 2004).

The GWB was used to examine self-esteem and ethnic identity and its impact on two types of acculturative stress and psychological well-being among first generational Mexican immigrant adults (Kim et al., 2014). The participants were administered the GWB pre-resource building classes and then again after 4 weeks. The results of the study could not determine the impact of acculturative stress related to being fluent in Spanish and retaining Mexican cultural practices on psychological well-being.

***The BAS***

The BAS is a self-report questionnaire available to researchers in the public domain that assesses levels of acculturation that are central to the individual in two cultural domains, Hispanic and non-Hispanic (Marin & Gamba, 1996). The response categories for items 1 through 6 and items 19 through 24 are *almost always* (4), *often* (3), *sometimes* (2), and *almost never* (1). The response categories for items 7 through 18 are *very well* (4), *well* (3), *poorly* (2), and *very poorly* (1). The Spanish version response categories for items 1 through 6 and items 19 through 24 are *casi siempre* (4), *frecuentemente* (3), *algunas veces* (2), and *casi nunca* (1). The response categories for item 7 through 18 are *muy bien* (4), *bien* (3), *no muy bien* (2), and *muy mal* (1). The BAS is used to develop scores for two levels of acculturation: the adoption of American culture ideals and the retention of ideals from the respondent's culture of origin (Marin & Gamba, 1996).

After a factor analysis was conducted for language related and social behavior items, the following subscales were developed: Language Use, Linguistic Proficiency, and Electronic Media. The Language Use subscale includes items that measure the frequency that the individual uses English or Spanish when they speak or think. A second language-related subscale, Linguistic Proficiency, includes six items that deal with how well the respondent speaks, reads, understands, and writes English and Spanish. These two language subscales indicated a high internal consistency (α =.97). The third subscale, Electronic Media, is a 3-item subscale that measures the frequency an individual uses English or Spanish language electronic media. An internal consistency score of alpha .83 was reported for this subscale.

The three subscales showed high alpha coefficients (α = .90) when the respondents were divided in terms of their national descent (Mexican Americans and Central Americans). The internal consistency was high for Mexican Americans (α = .93 for Hispanics and α = .97 for non-Hispanics) and for Central Americans (α = .87 for Hispanic domain and α = .95 for non-Hispanic domain). These high validity indexes are comparable or higher to other published acculturation scales (American Psychological Association, 2017).

In a study of the instrument's psychometrics, Norris et al. (1996) found coefficient alpha levels like those obtained by Marin et al. (1987), who used a longer version of the measure. While alpha coefficients were lower (α = .80 total and .74 for males) for the Puerto Rican respondents, they met criterion for respectable to very good

scale reliability. Norris et al. (1996) also found that the BAS correlated highly with known factors of acculturation.

## Data Analysis Plan

The research employed a multi-step analytical strategy. The raw data was entered into SPSS version 24.0 for Windows. Prior to analysis, the data was examined for partial responses and potential outlying responses. Z-scores were used to identify outlying scores for each of the scales (Tabachnick & Fidell, 2013). Once the final sample size was determined, descriptive statistics were explored for the demographics and variables of interest through use of frequencies, percentages, means, and standard deviations. The internal consistency of the measurements was evaluated via Cronbach's alpha tests of reliability. Cronbach's alpha coefficients were evaluated using the guidelines suggested by George and Mallery (2016) where $\alpha > .9$ Excellent, $\alpha > .8$ Good, $\alpha > .7$ Acceptable, $\alpha > .6$ Questionable, $\alpha > .5$ Poor, $\alpha < .5$ Unacceptable. Statistical significance for each of the inferential tests was evaluated at the conventional level, $\alpha = .05$. The research questions and related analyses are detailed below.

**Research Question 1**: Will there be a significant difference in pre- and post-testing in the total symptom severity score of the PTSD Checklist for DSM-5 (PCL-5) between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies?

***H*□1:** There will not be a significant difference in pre- and post-testing in the total symptom severity score of the PCL-5 between Hispanic veterans receiving 8 weeks of

individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

***H*□1:** There will be a significant difference in pre- and post-testing in the total symptom severity score of the PCL-5 between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

**Research Question 2**: Will there be a significant difference in pre- and post-testing in the total scores of the General Well-Being Schedule (GWB) between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies?

***H*□2:** There will not be a significant difference in pre- and post-testing in the total scores of the GWB between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

***H*□2:** There will be a significant difference in pre- and post-testing in the total scores of the GWB between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

To address research questions 1 and 2, a series of mixed model ANOVAs were conducted to examine for differences over time in total symptom severity, general well-being, and bidimensional acculturation by individual group therapy, group behavioral therapy, or a combination of the two therapies. A mixed model ANOVA was an appropriate statistical tool for assessing for differences in a continuous variable by time and group (Tabachnick & Fidell, 2013). The within-group effect for the ANOVA

examined the difference in scores between pretest and posttest. The between-effect for the ANOVA examined for differences in the three therapy types: individual behavioral therapy, group behavioral therapy, or a combination of the two therapies. Prior to analysis, the assumptions of normality and homogeneity of variance were tested. The *F* test was used to evaluate the overall comparison on whether significant differences existed by group or time.

**Research Question 3:** Does a significant relationship exist between level of acculturation as measured by the BAS and PTSD symptom severity as measured by the PCL-5, for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies?

***H*□3: 3:** There will be no significant relationship between level of acculturation as measured by the BAS and PTSD symptom severity as measured by the PCL-5, for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

***H*□3:** There will be a significant relationship between level of acculturation as measured by the BAS and PTSD symptom severity as measured by the PCL-5, for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

**Research Question #4:** Does a significant relationship exist between level of acculturation as measured by the BAS and general well-being as measured by the GWB scale, for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies?

***H*□4:** There will be no significant relationship between level of acculturation as measured by the BAS and general well-being as measured by the GWB scale scores, for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

***H*□ 4:** There will be a significant relationship between level of acculturation as measured by the BAS and general well-being as measured by the GWB scale scores, for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

To address research questions 3 and 4, two multiple linear regressions were used to examine the predictive relationship between level of acculturation, symptom severity, and general well-being. The multiple linear regression was an appropriate statistical analysis when assessing the predictive relationship between an independent variable and a continuous criterion variable (Tabachnick & Fidell, 2013). Level of acculturation and type of therapy was treated as the predictor variables. For research question 4, PTSD symptom severity was treated as the continuous criterion variable. For research question 4, general well-being was treated as the continuous criterion variable. Prior to analysis, the assumptions of normality, homoscedasticity, and absence of multicollinearity were tested. The *F* test was used to evaluate the statistical significance of the overall model. Individual *t*-tests were used to evaluate the predictive effect of each independent variable. The coefficient of determination, $R^2$, was used to explain the variance in the continuous variable.

## Threats to Validity

### Threats to External Validity

Threats to external validity are linked to areas of the research that create bias regarding the measured results. Participants were self-selected volunteers and thus do not represent outcomes for all of those who might otherwise have been a part of this research pool. Through the application of a quasi-experimental design, there was a threat of statistical validity due to participants not being randomly assigned to the treatment groups. The researcher was cautious when interpreting the findings of the data analyses and did not automatically extrapolate the results to the population of interest.

### Threats to Internal Validity

Threats to internal validity correspond to limitations within the scope of quantitative research. First, the selection of a quantitative method limits the interpretation to closed-ended responses. With quantitative methods, the researcher cannot record the perceptions and underlying beliefs of the subjects. The use of self-report surveys also contains potential bias due to dependence upon participants' levels of honest response. In addition, confounding variables such as demographics (gender, age, ethnicity, etc.) could affect the measured relationships between the variables of interest (Howell, 2010).

## Ethical Procedures

All procedures described by the IRB of Walden University were followed. The researcher sought community partnerships from local outpatient clinics, and local outreach community agencies. Informed consent from each participant was first obtained in the on-line data collection process. I ensured that no data collected contained personal

identification. Computerized data is stored in a password-protected SPSS file on a password protected computer. The risk of loss of privacy was minimized by not including participant names on any survey instrument. All forms of data collected will be destroyed by shredding after a 5-year period has passed.

## Summary

The purpose of the study was to examine treatment outcomes and correlates of acculturation for Hispanic veterans diagnosed with PTSD at local outpatient clinics and community outreach agencies in a large southwest city in the United States. In this chapter, the research design and methodology of the study were outlined. The chapter was broken up into four sections and studies independent and dependent variables; research design and research questions and the methods used to answer the questions were integrated. The second section explained the sample population, and methods for procuring participants that were incorporated. Descriptions of how the surveys were developed and an explanation of how the surveys were chosen were included. The third section explained procedural guidelines, ethical procedures, including, but not limited to the collection of data and confidentiality. The fourth and last section ended with the chapter's summary. In the next chapter, the results of the data analysis will be presented.

# Chapter 4: Results

The purpose of this quantitative study was to examine treatment outcomes and correlates of acculturation for Hispanic veterans diagnosed with PTSD at local outpatient clinics and community outreach agencies. In this chapter, I present the findings of the data collection and analyses. Frequencies and percentages were used to explore the trends of the demographic factors. Means and standard deviations were used to explore the trends of the continuous-level data. Cronbach alpha test of internal consistency were used to identify the reliability of the scales. To address the research questions, a series of mixed model ANOVAs and multiple linear regressions were conducted.

## Descriptive Statistics

Applying the inferential analyses to the study, it was necessary to include an adequate sample. G*Power 3.1.7 was applied to determine the minimum sample size requirement (Faul et al., 2014). The research utilized mixed model ANOVAs and multiple linear regressions. The multiple linear regression had the larger sample size requirement. For the regression, three predictor variables were examined. A medium effect size ($f$ = .15) and a generally accepted power (.80) was incorporated. It was determined that a minimum sample size of 77 participants would be sufficient for the data collection.

During the Fall of 2020, I distributed surveys to area outpatient clinics and community outreach agencies where veterans receive mental health services. A total of 77 participants provided consent to respond to the questionnaires. Everyone in the sample

met the inclusion criteria for being of Hispanic descent. All participants responded to the full questionnaire at pretest and posttest.

The sample consisted of 58 males (75.3%) and 19 females (24.7%). Just under half of the sample consisted of married participants ($n$ = 37, 48.1%). Participants' therapists consisted of licensed professional counselors ($n$ = 47, 61.0%), psychologists ($n$ = 15, 19.5%), and social workers ($n$ = 15, 19.5%). Type of therapy used during the study consisted of individual ($n$ = 53, 68.8%), group ($n$ = 7, 9.1%), and combination ($n$ = 17, 22.1%). Table 1 presents the frequencies and percentages of the demographic variables.

**Table 1**

*Frequencies and Percentages of Demographics*

| Variable | *n* | % |
|---|---|---|
| Gender | | |
| Male | 58 | 75.3 |
| Female | 19 | 24.7 |
| Marital status | | |
| Married | 37 | 48.1 |
| Single | 17 | 22.1 |
| Divorced | 16 | 20.8 |
| Separated | 5 | 6.5 |
| Widowed | 2 | 2.6 |
| Therapist | | |
| Licensed professional counselor | 47 | 61.0 |
| Psychologist | 15 | 19.5 |
| Social worker | 15 | 19.5 |
| Type of therapy | | |
| Individual | 53 | 68.8 |
| Group | 7 | 9.1 |
| Individual and group therapy | 17 | 22.1 |

Participants responded to the PCL-5, GWB, and BAS. Composite scores were developed on the instruments by following the scoring instructions on the surveys. PTSD and well-being were measured at pretest and posttest, whereas acculturation was measured only once.

Cronbach's alpha test of internal consistency and reliability was examined for the four instrument scales. The strength of the alpha values was tested by applying use of George and Mallery's (2016) guidelines, in which $\alpha \geq .9$ is Excellent, $\alpha \geq .8$ is Good, $\alpha \geq .7$ is Acceptable, $\alpha \geq .6$ is Questionable, $\alpha \geq .5$ is Poor, and $\alpha < .5$ is Unacceptable. Reliability met the acceptable threshold for four of the five measurements. General well-being at posttest had internal consistency slightly below the acceptable threshold ($\alpha = .64$).

PTSD scores at pretest ranged from 15.00 to 79.00 ($M = 33.01$, $SD = 13.23$). PTSD scores at posttest ranged from 17.00 to 56.00 ($M = 34.61$, $SD = 6.99$). General well-being scores at pretest ranged from 32.00 to 89.00 ($M = 66.14$, $SD = 10.98$). General well-being scores at posttest ranged from 50.00 to 78.00 ($M = 66.71$, $SD = 5.47$). Acculturation scores ranged from 2.25 to 3.54 ($M = 2.80$, $SD = 0.29$). Descriptive statistics for the scales are presented in Table 2.

**Table 2**

*Descriptive Statistics for Scales*

| Instrument | Variable | *n* | *Min* | *Max* | *M* | *SD* | # of items | A |
|---|---|---|---|---|---|---|---|---|
| PCL-C | Pre-test PTSD | 77 | 15.00 | 79.00 | 33.01 | 13.23 | 20 | .96 |
| PCL-C | Post-test PTSD | 77 | 17.00 | 56.00 | 34.61 | 6.99 | 20 | .86 |
| GWB | General well-being pretest | 77 | 32.00 | 89.00 | 66.14 | 10.98 | 18 | .89 |
| GWB | General well-being posttest | 77 | 50.00 | 78.00 | 66.71 | 5.47 | 18 | .64 |
| BAS | Acculturation | 77 | 2.25 | 3.54 | 2.80 | 0.29 | 24 | .86 |

**Research Question 1**: Will there be a significant difference in pre- and post-testing in the total symptom severity score of the PCL-5 between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies?

***H*□1:** There will not be a significant difference in pre- and post-testing in the total symptom severity score of the PCL-5 between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

***H*□1:** There will be a significant difference in pre- and post-testing in the total symptom severity score of the PCL-5 between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

A mixed model ANOVA was conducted to examine for differences in pretest and posttest PTSD scores between individual behavioral therapy, group behavioral therapy, or

a combination of the two therapies. A mixed model ANOVA is appropriate when testing for differences in a continuous variable over a period of time and between groups (Tabachnick & Fidell, 2013). The continuous dependent variable in this analysis corresponded to PTSD scores. The independent grouping variable corresponded to group: individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

Prior to analysis, I tested the assumption of normality with Kolmogorov-Smirnov tests. The Kolmogorov-Smirnov compares the test data to a normal, bell-shaped distribution. The findings of the Kolmogorov-Smirnov test were significant for pretest PTSD ($p < .001$) and not significant for posttest PTSD scores ($p = .200$). Therefore, the assumption of normality was met for pretest scores but not for posttest scores. Howell (2013) indicated that violations of normality are not problematic when the sample size exceeds 50 cases.

The assumption for homogeneity of variance was verified with the Levene's test. Levene's test verifies that the variance in scores is approximately equal between the three groups (i.e., individual, group, combination). The results of the Levene's test were significant for PTSD pretest scores ($p = .048$) and not significant for PTSD posttest scores ($p = .697$). Therefore, the assumption of homogeneity of variance was supported for pretest scores but not for posttest scores. Due to the assumption for homogeneity of variance not being supported, the significance threshold for the main effects in the ANOVA will be reduced in half ($\alpha = .05/2 = .025$; Tabachnick et al., 2013).

Three effects were examined for the mixed model ANOVA: within-subjects effect (time: pretest versus posttest), between-subjects effect (group: individual behavioral therapy, group behavioral therapy, or a combination), and interaction effect (time*group). Results of the within-subjects effect (time) of the ANOVA were not statistically significant, $F(1, 74) = 1.61$ $p = .209$, $\eta^2 = .021$, suggesting that there were not significant differences in PTSD scores between pretest and posttest. Results of the between-subjects effect of the ANOVA were not statistically significant, $F(2, 74) = 0.22$, $p = .803$, $\eta^2 = .006$, suggesting that there were not significant differences in PTSD scores between treatment and control groups. Results of the interaction term (time*group) were not significant, $F(2, 74) = 2.93$, $p = .059$, $\eta^2 = .073$, suggesting that there were not significant differences in PTSD scores by the interaction of time and group. Results of the mixed model ANOVA are presented in Table 3. Means and standard deviations for PTSD scores over time and by group are presented in Table 4.

**Table 3**

*Means and Standard Deviations for PTSD by Time and Group*

| Continuous Variables | Individual | | | Group | | | Combination | | | Overall | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *n* | *M* | *SD* | *n* | *M* | *SD* | *n* | *M* | *SD* | *n* | *M* | *SD* |
| PTSD pretest | 53 | 33.06 | 14.90 | 7 | 28.71 | 4.79 | 17 | 34.65 | 9.52 | 77 | 33.01 | 13.23 |
| PTSD posttest | 53 | 35.45 | 6.91 | 7 | 37.14 | 5.55 | 17 | 30.94 | 6.78 | 77 | 34.61 | 6.99 |
| PTSD overall | 53 | 34.25 | 9.56 | 7 | 32.93 | 4.36 | 17 | 32.79 | 6.87 | 77 | 33.81 | 8.62 |

**Research Question 2**: Will there be a significant difference in pre- and post-testing in the total scores of the GWB between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies?

***H*□2:** There will not be a significant difference in pre- and post-testing in the total scores of the GWB between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

***H*□2:** There will be a significant difference in pre- and post-testing in the total scores of the GWB between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

A mixed model ANOVA was conducted to examine for differences in pretest and posttest general well-being scores between individual behavioral therapy, group behavioral therapy, or a combination of the two therapies. A mixed model ANOVA is appropriate when testing for differences in a continuous variable over a period of time and between groups (Tabachnick et al., 2013). The continuous dependent variable in this analysis corresponded to well-being scores. The independent grouping variable corresponded to group: individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

Prior to analysis, the assumption of normality was tested with Kolmogorov-Smirnov tests. The findings of the Kolmogorov-Smirnov test were significant for pretest general well-being ($p < .001$) and posttest general well-being ($p = .018$) scores. Therefore, the assumption of normality was not met for pretest scores or posttest scores. Howell (2013) indicates that violations of normality are not problematic when the sample size exceeds 50 cases. The assumption for homogeneity of variance was verified with the Levene's test. Levene's test verifies that the variance in scores is approximately equal between the three groups (individual, group, combination). The results of the Levene's

test were not significant for general well-being pretest scores ($p$ = .368) and general well-being posttest scores ($p$ = .165). Therefore, the assumption of homogeneity of variance was supported for pretest and posttest scores.

Three effects were examined for the mixed model ANOVA: within-subjects effect (time: pretest versus posttest), between-subjects effect (group: individual behavioral therapy, group behavioral therapy, or a combination), and interaction effect (time*group). Results of the within-subjects effect (time) of the ANOVA were not statistically significant, $F(1, 74) = 0.22$, $p = .640$, $\eta^2 = .003$, suggesting that there were not significant differences in general well-being scores between pretest and posttest. Results of the between-subjects effect of the ANOVA were not statistically significant, $F(2, 74) = 1.17$, $p = .316$, $\eta^2 = .031$, suggesting that there were not significant differences in general well-being scores between treatment and control groups. Results of the interaction term (time*group) were not significant, $F(2, 74) = 0.71$, $p = .497$, $\eta^2 = .019$, suggesting that there were not significant differences in general well-being scores by the interaction of time and group. Means and standard deviations for general well-being scores over time and by group are presented in Table 4.

**Table 4**

*Means and Standard Deviations for General Well-Being by Time and Group*

| Continuous Variables | Individual | | | Group | | | Combination | | | Overall | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *N* | *M* | *SD* | *N* | *M* | *SD* | *N* | *M* | *SD* | *N* | *M* | *SD* |
| General well-being pretest | 53 | 65.66 | 11.69 | 7 | 66.86 | 4.53 | 17 | 67.35 | 10.89 | 77 | 66.14 | 10.98 |
| General well-being posttest | 53 | 65.68 | 5.44 | 7 | 66.00 | 5.80 | 17 | 70.24 | 4.05 | 77 | 66.71 | 5.47 |
| General well-being overall | 53 | 65.67 | 7.79 | 7 | 66.43 | 4.98 | 17 | 68..79 | 6.50 | 77 | 66.43 | 7.35 |

**Research Question 3:** Does a significant relationship exist between level of acculturation as measured by the BAS and PTSD symptom severity as measured by the PCL-5, for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies?

***H*□3: 3:** There will be no significant relationship between level of acculturation as measured by the BAS and PTSD symptom severity as measured by the PCL-5, for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

***H*□3:** There will be a significant relationship between level of acculturation as measured by the BAS and PTSD symptom severity as measured by the PCL-5, for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

To address research question three, a multiple linear regression was conducted. The predictor variables corresponded to level of acculturation and type of therapy. Due to the categorical nature of therapy, the data needed to be dummy coded. Individual

behavioral therapy was treated as the reference group in the model. The continuous dependent variable corresponded to PTSD symptom severity at posttest.

Prior to analysis, the assumptions of a multiple linear regression were tested. Normality was assessed with a normal P-P plot. The data closely followed the normality trend line, indicating that the assumption of normality was supported (see Figure 1). Homoscedasticity was tested with a residual scatterplot. The assumption was supported given random spread in the scatterplot (see Figure 2).

**Figure 1**

*Normal P-P Plot for Regression with Acculturation and Therapy Type Predicting PTSD Scores*

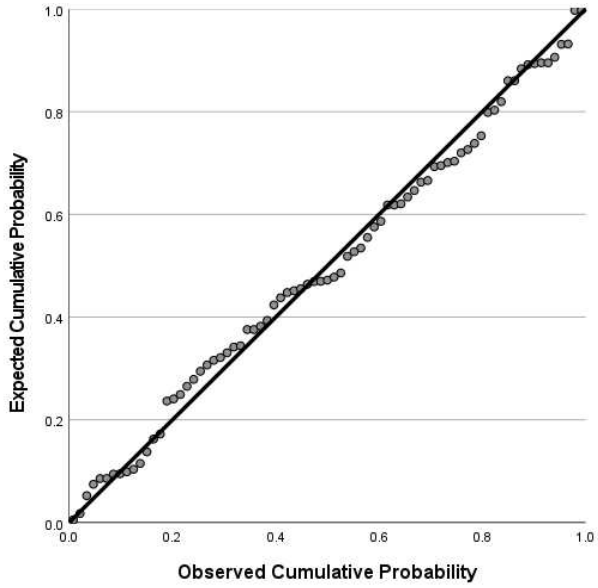
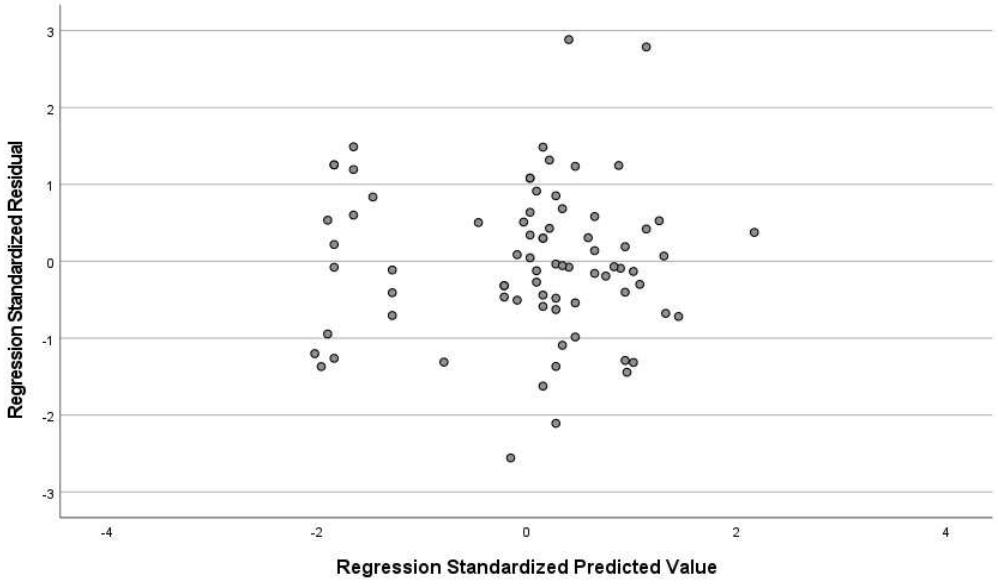


**Figure 2**

*Residuals Scatterplot for Regression with Acculturation and Therapy Type Predicting PTSD Scores*




VIF values were used to test for absence of multicollinearity. VIF values below 10 indicate that there is not a high association between the variables of interest (Stevens, 2010). The VIF values for Acculturation (1.01), Group Therapy (1.03) and Combination Therapy (1.04) indicate that there was not a high association between the variables of interest.

The findings of the multiple linear regression were statistically significant, $F(3, 73) = 2.76$, $p = .048$, and $R^2 = .059$, suggesting that collectively there was a significant predictive relationship between acculturation and therapy type on PTSD scores. The coefficient of determination, $R^2$, indicates that approximately 5.9% of the variance in PTSD scores can be explained by acculturation and therapy type. Acculturation was not a significant predictor in the model ($t = 1.21$, $p = .230$). Therapy type (combination versus

individual) was a significant predictor in the model ($t$ = -2.28, $p$ = .026), indicating that those who had combination therapy scored approximately 4.31 units lower on PTSD in comparison to those who had individual therapy. Table 5 presents the findings of the linear regression.

**Table 5**

*Multiple Linear Regression with Acculturation and Therapy Type Predicting PTSD*

| Predictor | *B* | SE | β | *t* | *P* |
|---|---|---|---|---|---|
| Acculturation | 3.30 | 2.73 | .14 | 1.21 | .230 |
| Therapy type (reference: Individual) | | | | | |
| Group | 1.75 | 2.72 | .07 | 0.64 | .522 |
| Combination | -4.31 | 1.89 | -.26 | -2.28 | .026 |

*Note.* $F(3, 73) = 2.76$, $p = .048$, $R^2 = .102$

**Research Question #4:** Does a significant relationship exist between level of acculturation as measured by the BAS and general well-being as measured by the GWB scale, for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies?

***H*□4:** There will be no significant relationship between level of acculturation as measured by the BAS and general well-being as measured by the GWB scale scores, for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

***H*□ 4:** There will be a significant relationship between level of acculturation as measured by the BAS and general well-being as measured by the GWB scale scores, for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies.

To address research question four, a multiple linear regression was conducted. The predictor variables corresponded to level of acculturation and type of therapy. Due to the categorical nature of therapy, the data needed to be dummy coded. Individual behavioral therapy was treated as the reference group in the model. The continuous dependent variable corresponded to general well-being at posttest.

Prior to analysis, the assumptions of a multiple linear regression were tested. Normality was assessed with a normal P-P plot. The data closely followed the normality trend line, indicating that the assumption of normality was supported (see Figure 3). Homoscedasticity was tested with a residual scatterplot. The assumption was supported given random spread in the scatterplot (see Figure 4).

**Figure 3**

*Normal P-P Plot for Regression with Acculturation and Therapy Type Predicting General Well-Being Scores*

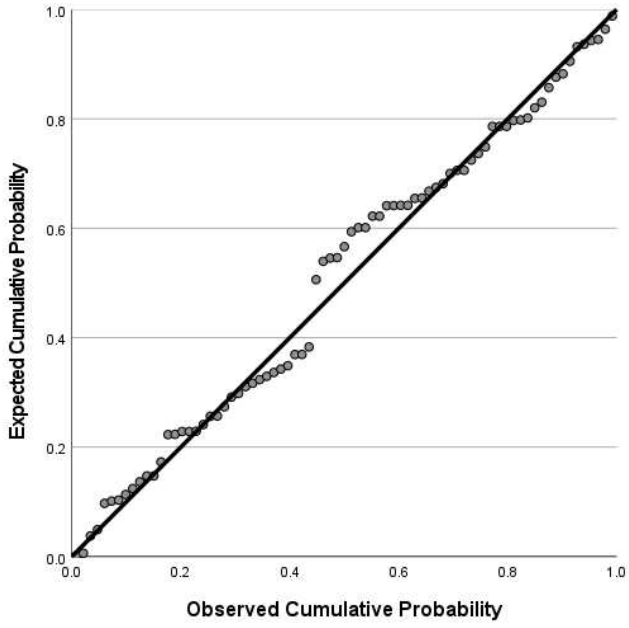
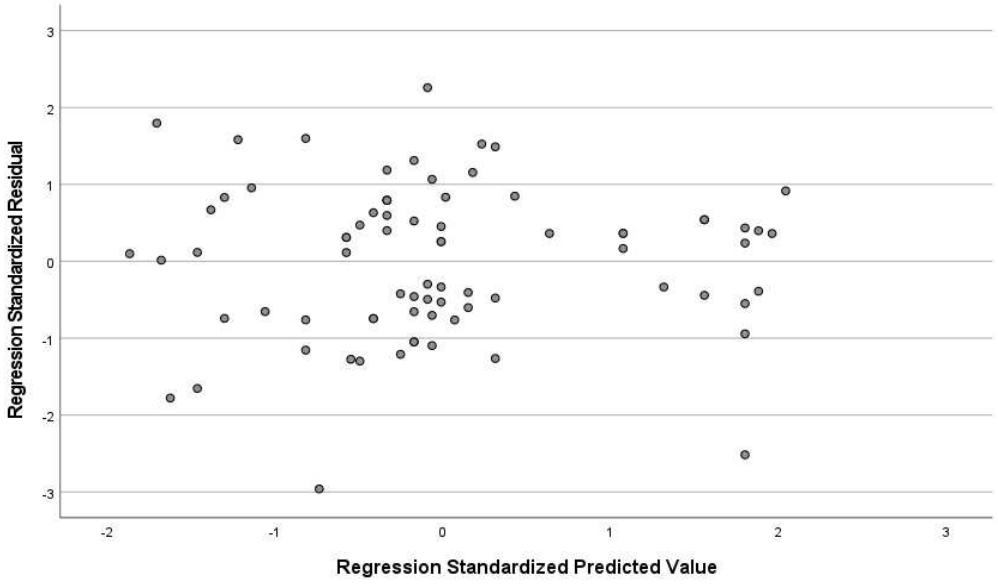


**Figure 4**

*Residuals Scatterplot for Regression with Acculturation and Therapy Type Predicting General Well-Being Scores*




VIF values were used to test for absence of multicollinearity. The assumption for absence of multicollinearity was supported by VIF values for Acculturation (1.01), Group Therapy (1.03) and Combination Therapy (1.04).

The findings of the multiple linear regression were statistically significant, $F(3, 73) = 5.02$, $p = .003$, and $R^2 = .171$, suggesting that collectively there was a significant predictive relationship between acculturation and therapy type on general well-being scores. The coefficient of determination, $R^2$, indicates that approximately 17.1% of the variance in general well-being scores can be explained by acculturation and therapy type. Acculturation was a significant predictor in the model ($t = -2.14$, $p = .036$), indicating that with every one-unit increase in acculturation scores, general well-being scores decreased by approximately 4.39 units. Therapy type (combination versus individual)

was a significant predictor in the model ($t$ = 3.01, $p$ = .004), indicating that those who had combination therapy scored approximately 4.28 units higher on general well-being in comparison to those who had individual therapy. Table 6 presents the findings of the linear regression.

**Table 6**

*Multiple Linear Regression with Acculturation and Therapy Type Predicting General Well-being*

| Predictor | *B* | SE | β | *t* | *P* |
|---|---|---|---|---|---|
| Acculturation | -4.39 | 2.05 | -.23 | -2.14 | .036 |
| Therapy type (reference: Individual) | | | | | |
| Group | 0.24 | 2.05 | .01 | 0.12 | .906 |
| Combination | 4.28 | 1.42 | .33 | 3.01 | .004 |

*Note.* $F(3, 73) = 5.02$, $p = .003$, $R^2 = .171$

## Summary

The purpose of this quantitative study was to examine treatment outcomes and correlates of acculturation for Hispanic veterans diagnosed with post- traumatic stress disorder at the local outpatient clinics and community outreach agencies. In this chapter, the findings of the data collection and analyses were presented. Frequencies and percentages were used to explore the trends of the demographic factors. Means and standard deviations were used to explore the trends of the continuous-level data. Cronbach alpha test of internal consistency will be used to identify the reliability of the scales. Four of the five measurements met the acceptable threshold for internal consistency, while general well-being at posttest had internal consistency slightly below the acceptable threshold (α = .64). To address the research questions, a series of mixed model ANOVAs and multiple linear regressions were conducted.

For Research Question 1, none of the main effects were statistically significant, indicating that there were not significant differences in PTSD scores between time and group. For Research Question 2, none of the main effects were statistically significant, indicating that there were not significant differences in general well-being scores between time and group.

For Research Question 3, the findings of the multiple linear regression were statistically significant, suggesting that collectively there was a significant predictive relationship between acculturation and therapy type on PTSD scores. Therapy type (combination versus individual) was a significant predictor in the model, indicating that those who had combination therapy scored approximately units lower on PTSD in comparison to those who had individual therapy.

For Research Question 4, the findings of the multiple linear regression were statistically significant, suggesting that collectively there was a significant predictive relationship between acculturation and therapy type on general well-being scores. Acculturation was a significant predictor in the model, indicating that with every one-unit increase in acculturation scores, general well-being scores decreased. Therapy type (combination versus individual) was a significant predictor in the model, indicating that those who had combination therapy scored higher on general well-being in comparison to those who had individual therapy.

In the next chapter, the findings of the data analysis will continue to be discussed in the context of the literature. Limitations of the current research and recommendations for future research will be provided.

# Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative study was to explore self-identified outcomes of three treatment modes and how this correlates with acculturation for Hispanic veterans diagnosed with PTSD at outpatient clinics and community outreach agencies for veterans. While there is limited research conducted on the impact of PTSD on Hispanic veterans, the research that has been conducted on Hispanic veterans indicates they have a higher probability of more severe symptoms in multiple domains of PTSD (Ortega et al., 2000). Three self-report questionnaires were used for the study. The PCL-5 and the GWB allowed for consistent measurement of PTSD and psychological symptoms across the three therapeutic approaches: individual behavioral therapy, group behavioral therapy, or combination of the two therapies. The third instrument, the BAS, measures two major cultural dimensions (Hispanic and Non-Hispanic) to assess levels of acculturation.

All three measures were administered at the beginning of therapy to collect baseline data. After 8 weeks of therapy, the PCL-5, and GWB, were re-administered. A combination of quantitative analyses was used, including ANOVAs and multiple linear regressions, to address the research questions. The continuous dependent variables in this analysis corresponded to PTSD scores, and well-being scores. The independent grouping variable corresponded to group: individual behavioral therapy, group behavioral therapy, or a combination of the two therapies. To address Research Question 3 on whether a significant relationship exists between level of acculturation and PTSD symptom severity for Hispanic veterans receiving individual behavioral therapy, group therapy, or a combination of the two therapies, a multiple linear regression was conducted. The

predictor variables corresponded to level of acculturation and type of therapy. Individual behavioral therapy was treated as the reference group in the model. The continuous dependent variable corresponded to PTSD symptom severity at posttest.

Results of the within-subjects effect (time) of the ANOVA were not statistically significant, suggesting that there were not significant differences in PTSD and general well-being scores between pretest and posttest. Results of the between-subjects effect of the ANOVA were not statistically significant, suggesting that there were not significant differences in PTSD and general well-being scores between treatment and control groups. Results of the interaction term (time*group) were not significant, suggesting that there were not significant differences in PTSD and general well-being scores by the interaction of time and group.

Collectively, there was a significant predictive relationship between acculturation and therapy type on PTSD scores. Acculturation was not a significant predictor in the model. Therapy type (combination versus individual) was a significant predictor in the model, indicating that those who had combination therapy scored lower on PTSD in comparison to those who had individual therapy.

The literature review established the need for continued research on mental health services and treatment outcomes for Hispanic veterans and their effectiveness in reducing PTSD symptoms. Research on acculturation identified the need for a cultural dimension and an integrative approach to the delivery of mental health services. In the process of seeking to provide information on treatment outcomes and correlates of acculturation for Hispanic veterans diagnosed with PTSD, there is a need to provide mental health

professionals with a theoretical framework. In my literature review, I addressed Leininger's CCT (2002), which expands on diverse and universal care factors.

## Interpretation of the Findings

The results of the study provided information recommended by Asnaani et al., (2017) that the cultural factors be considered when interpreting PTSD symptoms among ethnic minorities. It is necessary to address the specific needs of all veterans as they are presented instead of implementing a one-size-fits-all treatment plan. There is a need to address the shortcomings in the research on how acculturation may impact treatment outcomes for Hispanic veterans and their mental health. Although the extant literature identified that acculturation is an important factor in therapy treatments (Huang & Zane, 2016) and Hispanic populations are particularly vulnerable to PSTD (Alcantara et al., 2013), there is a dearth of research assessing correlations between acculturation and response to treatment for PTSD among Hispanic veterans (Koo et al., 2015).

### Comparison with Literature Reviewed

#### *Research Question 1*

Research Question 1 was designed to examine whether there is a significant difference in pre- and post-testing in the total symptom severity score of the PCL-5 between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies. Based on the findings reported in Chapter 4 and research reviewed in Chapter 2, it was not surprising to see that for Research Question 1, none of the main effects were statistically significant, indicating that there were no significant differences in PTSD scores between time and group.

My findings align with those of Alcantara et al. (2013), who found that Hispanics had higher rates of PTSD based on self-reported symptom checklists, but not on actual diagnosis based on clinician-administered diagnostic interviews. When comparing individual and group therapy for veterans with PTSD, Sripada and colleagues (2016) examined a sample of 35, 144 VA patients who had a medical diagnosis of PTSD. The results revealed that the veterans who received group therapy received more sessions within a 14-week period in comparison to those receiving individual therapy. This was consistent with research conducted in other VA specialty mental health clinics (Burnett-Ziegler et al., 2012). However, Sripada et al. (2016) also found that Hispanics were less likely than non-Hispanics to receive adequate psychotherapy and equitable access to psychotherapy.

***Research Question 2***

Research Question 2 was designed to examine whether there is a significant difference in pre- and post-testing in the total scores of the GWB between Hispanic veterans receiving 8 weeks of individual behavioral therapy, group behavioral therapy, or a combination of the two therapies. For Research Question 2, none of the main effects were statistically significant, indicating that there were no significant differences in general well-being scores between time and group. My findings align with those of Toelch et al., (2015), who found that a change in an individual's behavior, opinions, or belief system results from informational conformity or pressure from a person or persons in a group. For example, in informational conformity, an individual acquires acceptable responses and, therefore, copies behaviors that are expressed by most group members

(Toelch et al., 2015). Additionally, the cultural values of *familismo* and spirituality were closely tied to life satisfaction, which has been consistently associated with the positive mental health of Hispanics (Ayon et al., 2010; Falicov, 2014; Ojeda et al.; 2013).

***Research Question 3***

Research Question 3 was designed to examine whether there is a significant relationship between level of acculturation and PTSD symptom severity for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies. For Research Question 3, the findings of the multiple linear regression were statistically significant, suggesting that collectively there was a significant predictive relationship between acculturation and therapy type on PTSD scores. Therapy type (combination versus individual) was a significant predictor in the model, indicating that those who had combination therapy scored approximately 4.31 units lower on PTSD in comparison to those who had individual therapy.

My findings align with those of Miville et al (2006), who reported that higher levels of acculturation and lower perceived social support from family and friends were predictors of greater self-helping behavior. Moreover, according to Kracen et al. (2013), OEF/OIF veterans preferred individual therapy over group therapy, voicing concerns about expressing their emotions, being misunderstood, and not liking the composition of the groups. The CCT involves cultural care accommodations that include compassionate, innovative professionals whose actions and decisions help support people of a specific culture to adapt to or work together with other health professionals to achieve positive health outcomes (McFarland et al., 2015).

***Research Question 4***

Research Question 4 was designed to examine whether there is a significant relationship between level of acculturation and general well-being for Hispanic veterans receiving individual behavioral therapy, group behavioral therapy, or a combination of the two therapies. For Research Question 4, the findings of the multiple linear regression were statistically significant, suggesting that collectively there was a significant predictive relationship between acculturation and therapy type on general well-being scores. Acculturation was a significant predictor in the model, indicating that with every one-unit increase in acculturation scores, general well-being scores decreased. Therapy type (combination versus individual) was a significant predictor in the model, indicating that those who had combination therapy scored higher on general well-being in comparison to those who had individual therapy.

My findings align with the research of Pittman (2014), who found that increased acculturation is associated with a greater risk for PTSD and that Latinos tend to underreport levels of stress but tend to experience higher levels of avoidance and numbing. According to Lawton et al. (2018), there is an association between higher levels of acculturation or orientation to U.S. culture and higher rates of externalizing problems in Hispanic adolescents. Additionally, higher levels of acculturation or orientation to U.S. culture are linked to internalizing problems for Hispanic girls, including higher depressive symptomology, eating disorders, and suicide attempts (Schwartz et al., 2010). Hirai (2015) found that more acculturated Latinos prefer conventional psychological treatment, compared to less acculturated Latinos who prefer culturally relevant religious

treatment. According to Schwartz et al. (2010), Hispanics born in the United States or who have spent considerable time in the United States are more likely to be diagnosed with a psychiatric disorder than Hispanics who were born abroad or who are recent immigrants. This information can be used by mental health providers, such as counselors, licensed professional counselors, psychologists, and psychiatrists, when treating Hispanic veterans. The CCT addresses cultural care preservation or maintenance and includes assistive and supportive measures to help individuals of a specific culture maintain and preserve pertinent care values so that they can persevere in their wellbeing, recover from illness, or deal with their disabilities (McFarland et al., 2015).

## Limitations

The study includes some limitations, and the results should be interpreted with these limitations in mind. First, the findings of the study are not generalizable to populations beyond those comparable to the veterans taking part in this anonymous study. An additional limitation was the number of women (*n* = 19; 24.7%*)* who participated in the survey in comparison to the number of men (*n* = 58; 75.3%). Due to the small sample size, the findings of the study are not generalizable to populations beyond those comparable to the veterans taking part in this anonymous study.

## Recommendations for Further Research

There are two different categories of recommendations associated with this study. First, there are the recommendations based on the findings of the study, and second, there the recommendations for future studies. Recommendations based on the findings focus on providing services based on the veterans' responses to the questionnaires.

Recommendations for future research may lead to insight into the needs of this population.

For Research Questions 1 and 2, none of the main effects were statistically significant, indicating that there were no significant differences in PTSD and general well-being scores between time and group. For Research Question 3, the findings of the multiple linear regression were statistically significant, suggesting that collectively there was a significant predictive relationship between acculturation and therapy type on PTSD scores. Therapy type (combination versus individual) was a significant predictor in the model, indicating that those who had combination therapy scored lower on PTSD in comparison to those who had individual therapy. For Research Question 4, the findings of the multiple linear regression were statistically significant, suggesting that collectively there was a significant predictive relationship between acculturation and therapy type on general well-being scores. Acculturation was a significant predictor in the model, indicating that with every one-unit increase in acculturation scores, general well-being scores decreased. Therapy type (combination versus individual) was a significant predictor in the model, indicating that those who had combination therapy scored higher on general well-being in comparison to those who had individual therapy.

To address the issue of a significant predictive relationship between acculturation and therapy type on PTSD scores, it was found that therapy type (combination versus individual) resulted in lower PTSD scores in veterans who had received individual therapy in comparison to those who had combination therapy. It would be beneficial to

monitor clients' progress and determine which therapy type (combination versus individual) would yield better results on PTSD scores for the individual.

For Research Question 4, the findings of the multiple linear regression were statistically significant, suggesting that collectively there was a significant predictive relationship between acculturation and therapy type on general well-being scores. Acculturation was a significant predictor in the model, indicating that with every one-unit increase in acculturation scores, general well-being scores decreased. Therapy type (combination versus individual) was a significant predictor in the model, indicating that those who had combination therapy scored higher on general well-being in comparison to those who had individual therapy. It would be beneficial to monitor clients' progress and determine which therapy type (combination versus individual) would yield better results on general well-being for the individual.

The literature review established the need for continued research on mental health services and treatment outcomes for Hispanic veterans and their effectiveness in reducing PTSD symptoms. Research on acculturation identified the need for a cultural dimension and an integrative approach to the delivery of mental health services. In the process of seeking to provide information on treatment outcomes and correlates of acculturation for Hispanic veterans diagnosed with PTSD, there is a need to provide mental health professionals with a theoretical framework that addresses those needs. Hispanic veterans need Hispanic bilingual (English and Spanish) mental health providers who can support and help these individuals persevere in their wellbeing, recover from illness or deal with their disabilities.

## Implications

The research can impact positive social change by identifying correlations between therapeutic outcomes and acculturation for Hispanic veterans with PTSD. The results may facilitate improved assessment and treatment, and therapists may better understand how culture and sociocultural factors impact the diagnosis and treatment of Hispanic veterans. The findings can also help practitioners recognize the interrelationship between mental health and the cultural values, beliefs, and behaviors of ethnic minorities, as well as help practitioners conceptualize the role that culture plays in mental health. This information may be used by mental health professionals who provide services to Hispanic veterans diagnosed with PTSD at outpatient clinics and community outreach agencies. According to Ray et al., (2009), there has been limited research conducted on the impact of PTSD on Hispanic veterans. The research conducted on Hispanic veterans indicates they have a higher probability of more severe symptoms in multiple domains of PTSD (Ortega et al., 2000). Therefore, it is essential that research be conducted to meet the needs of this military population.

Military culture supports collectivism, conformity, and attachment to units; for deployed Hispanic service members, equally important relationships with their supportive families are disrupted (Ahronson et al., 2009). Research indicates that OEF, OIF, and OND combat veterans have been reported to be at a higher risk for developing PTSD, and Hispanic veterans in particular are more vulnerable to developing PSTD (Ahronson et al., 2009; Alcantara et al., 2013; Kracen et al., 2013; Ortega et al., & Rosenheck, 2000; Pitman, 2014). Therefore, it is vital to conduct research on treatment outcomes for

Hispanic veterans, as research regarding this population is lacking. Input from this population may provide researchers with different perspectives and insights that may improve treatment planning for Hispanic veterans.

## Conclusion

Veterans may experience mental illness within a year of returning from warzones and require unique treatment and services when compared to non-military populations (Alcantara et al., 2013; Asnani et al., 2017; Tuerk et al., 2011). Veterans diagnosed with PTSD report higher levels of distress in comparison to veterans without PTSD. There was a lack of longitudinal studies examining the relationship between ethnicity, acculturation, and the development of PTSD among Hispanic combat veterans. The present study was designed to fill the gap in existing research on Hispanic veterans in the United States who suffer from PTSD, their treatment outcomes, and correlates of acculturation.

Regarding the predictive relationship between acculturation and therapy type on PTSD scores, it was found that therapy type (combination versus individual) resulted in lower PTSD scores in veterans who had received individual therapy in comparison to those who had combination therapy. Acculturation also was a significant predictor in the model, indicating that with every one-unit increase in acculturation scores, general well-being scores decreased. Therapy type (combination versus individual) was a significant predictor in the model, indicating that those who had combination therapy scored higher on general well-being in comparison to those who had individual therapy.

# References

Adams, R. S., Nikitin, R. V., Wooten, N. R., Williams, T. V., & Larson, M. J., 2016. The association of combat exposure with postdeployment behavioral health problems among U.S. Army enlisted women returning from Afghanistan or Iraq. *Journal of Traumatic Stress*, *29*(4), 356-364. https://doi.org/10.1002/jts.22121

Ahronson, A., & Cameron, J. E. (2009). The nature and consequences of group cohesion in a military sample. *Military Psychology*, *19*(1), 9-25. https://doi.org/10.1080/08995600701323277

Alcantara, C., Casement, M. D., & Lewis-Fernandez, R. (2013). Conditional risk for PTSD among Latinos: A systematic review of racial/differences and sociocultural explanations. *Clinical Psychological Review*, *33*(1), 107-119. https://doi.org/10.1016/j.cpr.2012.10.005

American Psychiatric Association. (1980). *DSM-III*: *Diagnostic and statistical manual of mental disorders* (3rd ed.). American Psychiatric Association.

American Psychiatric Association. (1987). *DSM-III-R: Diagnostic and statistical manual of mental disorders* (3rd ed.). American Psychiatric Association.

American Psychiatric Association. (2000). *DSM-IV-TR: Diagnostic and statistical manual of mental disorders* (4th ed.). American Psychiatric Association.

American Psychiatric Association. (2013*). Diagnostic and statistical manual of mental disorders: DSM-5*. American Psychiatric Association.

American Psychological Association. (2015). *Violence & socioeconomic status*. http://www.apa.org/pi/ses/resources/publications/factsheet-violence.aspx

American Psychological Association. (2017). *Ethnic and racial minorities and socioeconomic status*. http://www.apa.org/pi/ses/resources/publications/minorities.aspx

Anders, C. J. (2012). *From "irritable heart" to "shellshock": How post-traumatic stress disorder becomes a disease*. https://gizmodo.com/from-irritable-heart-to-shellshock-how-post-trauma-5898560

Andrews, A. R., Bridges, A. J., & Gomez, D. (2013). A multi-study analysis of conceptual and measurement issues related to health research on acculturation in Latinos. *Journal of Transcultural Nursing*, *24*(2), 134-143. https://doi.org/10.1177/1043659612472199

Arciniega, G. M., Anderson, T. C., Tovar-Blank, Z. G., & Tracy, T. J. G. (2008). Toward a fuller conception of *machismo* development of a traditional *machismo* and *caballerismo* scale. *Journal of Counseling Psychology*, *55*(1), 19-33. https://doi.org/10.1037/0022-0167.55.1.19

Arellano-Morales, L., Liang, C. T. H., Ruiz, L., & Rios-Oropeza, E. (2016). Perceived racism, gender role conflict, and life satisfaction among Latino day laborers. *Journal of Latina/o Psychology*, *4*(1), 32-42. https://doi.org/10.1037/lat0000049

Asnaani, A., & Hall-Clark, B. (2017). Recent developments in understanding ethnocultural and race differences in trauma exposure and PTSD. *Current Opinion in Psychology*, *14*, 96-101. https://doi.org/10.1016/j.copsyc.2016.12.005

Avila, F. M. (2014). *Self-esteem, spirituality, and acculturation and the relationship with depression in Latinos* (Publication No. 3641958) [Doctoral dissertation,

University of Denver]. ProQuest Dissertations and Theses Global.

Ayon, C., & Aisenberg, E. (2010). Negotiating cultural values and expectations within the public child welfare system: A look at familismo and personalismo. *Child and Family Social Work*, *15*, 335-344. https://doi.org/10.1111/j.1365-2206.2010.00682.x

Ayon, C., Marsiglia, F. F., & Bermudez-Parsai, M. (2010). Latino family mental health: Exploring the role of discrimination and familismo. *Journal of Community Psychology*, *38*(6), 742-756. https://doi.org/10.1002/jcop.20392

Barabasz, A., & Barabasz, M. (2013). Hypnosis for PTSD: Evidence based placebo-controlled studies. *Journal of Trauma & Treatment*, *54*. https://doi.org/10.4172/2167-1222.s4-006

Blashfield, R. K., Keeley, J. W., Flanagan, E. H., & Miles, S. R. (2014). The cycle of classification: DSM I through DSM-5. *Annual Review Clinical Psychology*, *10*(1), 25-51. https://doi.org/10.1146/annurev-clinpsy-032813-153639

Bondjers, K., Sveen, J., & Willebrand, M. (2015). *Psychometric properties of the PTSD checklist for DSM-5 in parents to children with burns*. http://urn.kb.se/resolve?urn=urn:nbn:se:esh:diva-8335

Bordens, K. S., & Abbott, B. B. (2008). *Research design and methods: A process approach* (7th ed.). McGraw-Hill.

Börjesson, M., Österberg, J., & Enander, A. (2011). Risk and safety attitudes among conscripts during compulsory military training. *Military Psychology*, *23*(6), 659-684. https://doi.org/10.1080/08995605.2011.616815

Bovin, M. J., Marx, B. P., Weathers, F. W., Gallagher, M. W., Rodriguez, P., Schnurr, P., & Keane, T. M. (2016). Psychometric properties of the PTSD checklist for diagnostic manual of mental disorders-fifth edition (PCL-5) in veterans. *Psychological Assessment*, *28*(11), 1379-1391. https://doi.org/10.1037/pas0000254

Cacioppo, J. T., Reis, H. T., & Zautra, A. J. (2011). Social resilience: The value of social fitness with an application to the military. *American Psychologist*, *66*(1), 43-51. http://doi.org/10.1037/a0021419

Calzada, E. (2010). Bringing culture into parent training with Latinos. *Cognitive and Behavioral Practice*, *17*, 167-175. https://doi.org/10.1016/j.cbpra.2010.01.003

Calzada, E. J., Fernandez, Y., & Cortes, D. E. (2010). Incorporating the cultural value of *respeto* into a framework of Latino parenting. *Cultural Diversity and Ethnic Minority Psychology*, *16*(1), 77-86. https://doi:10.1037/a0016071

Calzada, E. J., Yen-Huang, K. Y., Anicama, C., Fernandez, Y. & Brotman, L. M. (2012). Test of a cultural framework of parenting with Latino families of young children. *Cultural Diversity and Ethnic Minority Psychology*, *18*(3), 285-296. https://doi.org/10.1037/a0028694

Calzada, E. J., Huang, K. Y., Linares-Torres, H., Singh, S. D., & Brotman, L. (2014). Maternal *familismo* and early childhood functioning in Mexican American and Dominican families. *Journal of Latina/o Psychology, 24*(3), 156-171. https:/doi/10.1037/lat0000021

Campos, B., Ullman, J. B., Aguilera, A., & Dunkel Schetter, C. (2014). Familism and psychological health: The intervening role of closeness and social support.

*Cultural Diversity and Ethnic Minority Psychology, 20*(2), 191-201. https:/doi/10.1037/a0034094

Capielo, C., Delgado-Romero, E. A., & Stewart, A. E. (2015). A focus on an emerging Latina/o population: The role of psychological acculturation, acculturative stress, and coping on depression symptoms among central Florida Puerto Ricans. *Journal of Latina/o Psychology, 3*(4), 209-223. http://dx.doi.org/10.1037/lat0000039

Carrera, S. G. &Wei, M. (2014). Bicultural competence, acculturative, family distancing, and future depression in Latino's college students: A moderated mediation model. *Journal of Counseling Psychology*, *61*(3), 427. https://doi.org/10.1037/cou0000023

Cartaret, M. (2011). Cultural Values of Latino Patients and Families, Dimensions of Culture: Cross-Cultural Communications for the Healthcare Professional. www.dimensionsofculture.org

Castillo, L., Cano, M., Chen, S., Blucker, R., & Olds, T. (2008). Family conflict and intragroup marginalization as predictors of acculturative stress in Latino college students. *Journal of Stress Management*, *15*(1), 43-52. https:/doi/10.1037/1072-5245.15.1.43

Celenk, O., & van de Vijver F. J. R. (2014). Assessment of acculturation and multiculturalism: An overview of measures in the public domain. *Handbook of multicultural identity: Basic and applied perspectives.* Oxford University Press.

Chassany, O., Dimenas, E., Dubois, D., & Wu, A. (2004). The psychological general

well-being index (PGWBI) user manual. MAPI Research Institute.

Charvat, M. (2010). History of post-traumatic stress disorder in combat. www.warrelatedilness.va.gov/education/conferences/2010-sept/

Chavez-Korell, S., Benson-Florez, G, Delgado-Rendon, A., & Farias, R. (2014). Examining the relationship between physical functioning, ethnic identity, acculturation, familismo, and depressive symptoms for Latino older adults. *The Counseling Psychologist, 42*(2), 255-277. https://doi://10.1177/0011000013477906

Cigrang, J. A., Rauch, S. A. M., Avila, L. L., Bryan, C. J., Goodie, J. L., Peterson, A. L., Hryshko-Mullen, A. & STRONG STAR Consortium. Treatment of active-duty military with PTSD in primary care: Early findings, *Psychological Services*, *8*(2), 104-113. https://doi/10.1037/a0022740

Cohen, G. H., Fink, D. S., Sampson, L. & Galea, S. (2015). Mental health among reserve component military service members and veterans. *Epidemiology*, *37*(1), 7-22. https://doi.org//10.1093/epirev/mxu007

Cole, R. F. (2014). Understanding military culture: A guide for professional school counselors. *The Professional Counselor, 4*(5), 497-504. https://doi:10.15241/rfc.4.5.497

Cook, J. M., & Stirman, S. W. (2015). Implementation of evidence-based treatment for PTSD. *PTSD Research Quarterly* (4). http://www.ptsd.va.gov/professional/publications/ptsd-rq.asp.

Conrad, P. L. & Sauls, D. J. (2014). Deployment and PTSD in the female combat

veteran: A systemic review. *Nursing Forum*, *49*(1), 1-10. https://doi.org/10.1111/nuf.12049

Cornum, R., Mathews, M. D.,& Seligman, M. E. P. (2011). Comprehensive soldier fitness: Building resiliency in a challenging institutional context. *American Psychologist*, *66*(1) 4-9. https://doi.org/10.1037/a0021420

Corona, K., Campos, B., & Chen, C. (2016). Familism is associated with psychological well-being and physical health. *Hispanic Journal of Behavioral Sciences*, *39*(1), 46-65. https://doi.10.1177/0739986316671297

Coulter, I., Lester, P., & Yarvis, J. (2010). Social fitness. *Military Medicine,175(*8*)*, 88-96. https://doi.org/10.7205/MILMED-D-10-00278

Dale, C. M. (2008). Operation Iraqi freedom: Strategies, approaches, results, and issues. *Congressional Reports, Department of Defense News Briefing, Major General Joseph.* https://apps.dtic.mil/dtic/tr/fulltext/u2/a490069.pdf

Department of Defense. (2014). *2013 demographics: Profile of the military community*. download.militaryonesource.mil/12038/MOS/Reports/2013-Demographics-Report.pdf

Diffen LLC, (2017) “Hispanic vs Latino." http://www.diffen.com/difference/Hispanic_vs_Latino

DiGangi, J. A., Goddard, A. J., Miller, S. A., Leon, G. & Jason, L. A. (2016). Differences in PTSD symptomology among Latinos with childhood and adult trauma: The moderating effect of acculturation. *Journal of Addiction & Neuropharmacology*. doi.org/10.24966/AAD-7276/100009.

Duke M. R., Moore R. S., Ames G.M. (2011). PTSD treatment-seeking among rural Latino combat veterans: A review of the literature. *Journal of Rural Social Sciences.* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3677857/

Dupuy, H. J. (1977). General Well-being Schedule. Newell, M., C. (1977). In *Measuring health: A guide to rating scales and questionnaire* (2nd ed.). Oxford Press.

Dursa, E. K., Reinhard, M. J., Barth, S. K., & Schneiderman, A. I. (2014). Prevalence of a positive screen for PTSD among OEF/OIF-era veterans in a large population based cohort. *Journal of Traumatic Stress*, *27*(5), 542-549. https://doi.org/10.1002/jts.21956

Ehlers, A., Grey, N., Wild, J., Stott, R., Liness, S. Deale, A., Handley, R., Albert, I., Cullen, D., Hackman, A., Manley, J., McManus, F., Brady, F., Salkovskis, P., & Clark, D. M. (2013). Implementation of cognitive therapy for PTSD in routine care: Effectiveness and moderators of outcome in a consecutive sample. *Behaviour Research and Therapy*, *5*(11),742-752. https://doi.org/10.1016%2Fj.brat.2013.08.006.

Eisenman, D. P., Meredith, L. S., Rhodes, H., Green, B. L., Kaltman, S., Cassells, A., & Tobin, J. N. (2008). PTSD in Latino patients: Illness beliefs, treatment preferences, and implications for care. *Journal of General Internal Medicine*, 23, 1386-1392. https:/doi/10.1007/s11606-008-0677-y

Falicov, C. J. (2014*). Latino families in therapy: A guide to multicultural practice. (2nd*

*ed)*. Guilford.

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2014). G*Power Version 3.1.9 [computer software]. Uiversität Kiel, Germany. http://www.gpower.hhu.de/en/html

Fayloga, M. (2010). ISAF joint command – Afghanistan. *Afghanistan International Security Assistance Force.* https://web.archive.org/web/20110716211509/http://www.isaf.nato.int/article/isaf-releases/ana-isaf-complete-first-task-in-operation-new-dawn.html.

Festinger, L., Schacter, S., & Black, K. (1950). *Social pressures in informal groups.* Harper.

Friedman, M. J., Resick, P. A. & Keane, T. M. (2017). A psychological history of PTSD in *Handbook of PTSD.* PSYCH Assessments.

Fulton, J. J., Calhoun, P. S., Wagner, H. R., Schry, A. R., Hair, L. P., Feeling, N., Beckham, J. C. (2015). The prevalence of posttraumatic stress disorder in Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF) veterans: A meta-analysis. *Journal of Anxiety Disorder. 31*, 98–107. http://dx.doi.org/10/10.1016/j.janxdis.2015.02.003

Galea, S., Ahern, J., Tracy, M., Hubbard, A., Cerda, M., Goldmann, E. & Vlahov, D. (2008). Longitudinal determinants of posttraumatic stress in a population- based cohort study. *Epidemiology*, *19*(1), 47-54. http:/doi:10.1097/EDE.0b013e31815c1dbf

Garcia Ramirez, J., Manongdo, J., & Cruz- Santiago, M. (2010). The family as mediator of the impact of parent-youth acculturation/enculturation and inner-city stressors on Mexican-American youth substance use. *Cultural Diversity and Ethnic Minority Psychology*, *16*(3), 404-412. https://doi.org/10.1037/a0019725

Gavin, L. & Furman, W. (1989). Age differences in adolescents' perceptions of their peer groups. *Development of Psychology, 25*(5), 827-834. https:/doi/10.1037/0012-1649.25.5.827

Germar, M., Schlemmer, A., Krug, K., Voss, A. & Mojzisch, A. (2014). Social influence and perceptual decision making: A diffusion model analysis. *Personality and Social Psychology Bulletin*, *40*(2), 217-231. https://doi.org/10.1177%2F0146167213508985

George, D., & Mallery, P. (2016). *IBM SPSS statistics 23 step by step: A simple guide and reference (14th ed.).* Routledge

Glass, J. & Owen, J. (2010). Latino fathers: The relationship among machismo, acculturation, ethnic identity, and paternal involvement. *Psychology of Men & Masculinity*. *1*(4), 251-261. http://dx.doi.org/10.1037/a0021477

Gonzalez, Nathalie. (2018). *Acculturation, biculturalism, and familistic cultural values' relationship with Latino mental health.* (Publication No. 10824744) [Master's Theses, University of Texas El Paso]. .

Goodale, R., Abb, W.R., & Meyer, B.A. (2012). Military culture 101: Not one culture, but many cultures. http://www.womensvetusa.org

Greer, L.L. (2012). Group cohesion: Then and now. *Small Group Research, 43*(6), 655-661. https://doi.org/10.1177%2F1046496412461532

Hall-Clark, B., Kaczkurkin, A. N., Asnaani, A., Petterson, A. L., Yarvis, J. S., Borah. E. V., Dondanville, K. A., Hembree, E. A., Litz, B. T., Mintz, J., Young-McCaughan, S., & Foa, E.B. (2017) Ethnoracial differences in PTSD symptoms and trauma-related cognitions in treatment seeking active- duty military personnel for PTSD. 9(6), 741-745. http://dx.doi.org/10.1037/tra000242

Harris, H. L. (2014). *Understanding minority veterans*. Career Planning and Adult Development.

Hayes-Bautista, D. E. & Chapa, J. (1987). Latino terminology: Conceptual bases for standardized terminology. *American Journal of Public Health*, 77(1), 61-68. https://doi: 10.2105/AJPH.77.1.61

Hebenstreit, C.L., Madden, E. & Magen, S. (2014). Latent classes of PTSD symptoms in Iraq and Afghanistan female veterans. *Journal of Affective Disorders*, 132-138. http://dx.doi.org/10.1016/j.jad.2014.04.061

Herrera, C. J., Owens, G. P. & Mallinckrodt, B. (2012). Traditional machismo and caballerismo as correlates of posttraumatic stress disorder, psychological distress, and relationship satisfaction in Hispanic veterans. *Multicultural Counseling and Development, 41*, 21-35. https:/doi/10.1002/j.2161-1912.2013.00024.x

Hines, L. A., Sundin, J., Rona, R. J., Wessely, S., & Fear, N. T. (2014). Posttraumatic stress disorder post Iraq and Afghanistan: Prevalence among military subgroups. *Psychiatry*, *59*(9), 468-479. https:doi://10.1177/070674371405900903

Hirai, M., Vernon, L.L., Popan, J.R., & Clum, G.A. (2015). Acculturation and enculturation, stigma towards psychological disorders and treatment preferences in a Mexican American Sample: The role of education in reducing stigma. *Journal of Latina/o Psychology*, *3*(2).88-102. http://dx.doi.org/10.1037/lat00035

Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine, 351*, 13-22. https://doi.org/10.1056/nejmoa040603

Hosek, J. (2011). *How is deployment to Iraq and Afghanistan affecting U.S. service members and their families? An overview of early RAND research on the topic.* Santa Monica, CA: RAND Corporation.

Howell, D. C. (2013). *Statistical methods for psychology* (8th ed.). Cengage.

Huang, C. Y. & Zane, N. (2016). Cultural influences in mental health treatment. *Current Opinion in Psychology*, *8*, 131-136. https://doi.org/10.1016/j.copsyc.2015.10.009

Hunt, M. G., & Rosenheck, R. A. (2011). Psychotherapy in mental health clinics of the Department of Veterans Affairs. *Journal of Clinical Psychology*, *67*, 561-573. https://doi.org/10.1002/jclp.20788

Institute of Medicine (2013). *Returning home from Iraq and Afghanistan: Preliminary assessment of readjustment needs of veterans, service members, and their families.* The National Academies Press.

Institute of Medicine (IOM). (2008). *Gulf War and health: Physiologic, psychologic, and*

*psychosocial effects of deployment-related stress*. The National Academies Press.

Jankowski, K. (2016). PTSD and physical health. http://www.ptsd.va.gov/PTSD/professional-occurring/ptsd-physical-healsth.asp

Jones, J. (2013). A brief history of PTSD and physical health. Retrieved from https://www/military1.com/army/article/405058-a-brief-history-of-ptsd-the-evolution-of-our-understanding/

Kaylor, J. A., King, D. W., & King, L. A. (2007). Psychological effects of military service in Vietnam: A meta-analysis. *Psychological Bulletin*, *102*(2), 257-271. https:/doi/10.1037/0033-2909.102.2.257

Keane, T. M., Rubin, A., Lachowicz, M., Brief, D. J., Enggasser, J., Roy, M., Hermos, J., Helmuth, E., & Rosenbloom, D. (2014). Temporal stability of DSM-5 Posttraumatic Stress Disorder criteria in a problem drinking sample. *Psychological Assessment, 26(4),* 1138-1145. https://psycnet.apa.org/doi/10.1037/a0037133

Kelly, D.R. (2016). Applying acculturation theory and power elite theory on a social problem: Political underrepresentation of the Hispanic population in Texas. https://doi.org/10.1177%2F0739986316638324

Kelty, R. (2009). Citizen soldiers and civilian contractors: Soldier's unit cohesion and retention attitudes in the "total force." *Journal of Political and Military Sociology*, *37*(2), 133-159. https://doi.org/10.1177%2F0739986316638324

Kennedy, T. M. & Ceballo, R. (2013). Latino adolescents' community violence exposure: After-school activities and familismo as risk and protective factors. *Social*

*Development*, *22*(4), 663-682. https://doi.org/10.1111/sode.12030

Kilpatrick, D. G., Resnick, H. S., Milanack, M. E., Miller, M. W., Keyes, K. M., & Friedman, M. J. (2013). National estimates of exposures to traumatic events and PTSD prevalence using DSM-IV and DSM-5 criteria. *Journal of Traumatic Stress, 26*(5), 537-547. https://dx.doi.org/10.1002%2Fjts.21848

Kim, E., Hoge, I., & Salvisberg, C. (2014). Effects of self-esteem and ethnic identity: Acculturative stress and psychological well-being among Mexican immigrants. *Hispanic Journal of Behavioral Science*, *36*(2), 144-163. https://doi.org/10.1177%2F0739986314527733

King, A. P., Erickson, T. M., Giardino, N. D., Favorite, T., Rauch, S. A. M., Robinson, E., Kulkarni, M., & Liberzon, I. (2013). A pilot study of group mindfulness-based cognitive therapy (MBCT) for combat veterans with posttraumatic stress disorder. *Depression and Anxiety*, *30*(7), 638-645. https://doi.org/10.1002/da.22104

Koo, K. H., Madden, E., & Maguen, S. (2016). Race-ethnicity and gender differences in VA health care service utilization among U.S. veterans of recent conflicts. *Psychiatric Services*, *66*(5), 507-513. https://doi.org/10.1176/appi.ps.201300498

Koo, K. H., Tiet, Q., & Rosen, C. S. (2015). Relationships between racial/ethnic minority status, therapeutic alliance, and treatment expectancies among veterans with PTSD. *Psychological Services, 13*(3), 317–321. https://dx.doi.org/10.1037/ser0000029

Kracen, A. C., Mastnak, J. M., Loaiza, K. A. & Mathieu, M. M. (2013). Group therapy among OEF/OIF veterans: Treatment barriers and preferences. *Military Medicine*,

*178*, 146-149. https://doi.org/10.7205/MILMED-D-12-00213

Krogstad, J. M. (2017). U.S. Hispanic population growth has leveled off. Pew Research Center. https://www.pewresearch.org/fact-tank/2017/08/03/u-s-hispanic-population-growth-has-leveled-off/

Lancelotti, K. (2008). Cultural care theory. A framework for expanding awareness of diversity and racism in nursing. *Journal of Professional Nursing, 24*(3), 179-183. https://doi.org/10.1016/j.profnurs.2007.10.007

Lauth-Lebens, M. & Lauth, G. W. (2016). Risk and resilience factors of post-traumatic stress disorder: A review of current research. *Clinical and Experimental `Psychology*, *2*, 120-126. https://doi/10.4172/2471-2701.1000120

Lawton, K. E., Gerdes, A. C. & Kapke, T. (2018). The role of acculturation differences and acculturation conflict in Latino family mental health. *Journal of Latina/o Psychology*, *6*(2), 94-114. https://doi/10.1037/lat0000084

Leal, D. (2008). The multicultural military: Military service and the acculturation of Latinos and Anglos. *Armed Forces & Society*, *29*(2), 205-226. http://dx.doi.org/10.1177/0095327X0302900204

Leidy, M. S., Guerra, N. G., & Torro, R. I. (2010). Positive parenting, family cohesion, and child social competence among immigrant Latino families. *Journal of Family Psychology*, *24*(3), 252-260. https:/doi/10.1037/a0019407

Leininger, M.M. (2002). Cultural care theory: A major contribution to advance transcultural nursing knowledge and practices. *Journal of Transcultural Nursing*, 13, 189. https://doi.org/10.11772F10459602013003005

Lesko, W. A. (2011). *Readings in social psychology: General, classic, and contemporary selections.* Pearson.

Lester, K., Resick, P. A., Young-Xu, Y., & Artz, C. (2010). Impact of race on early treatment termination and outcomes in posttraumatic stress disorder treatment. *Journal of Consulting and Clinical Psychology*, *78*, 480-489. doi:10.1037/a0019551. https://doi.org/10.1037/a0019551

Lippa, S. M., Fonda, J. R., Fortier, C. B., Amick, M. A., Kenna, A., Milberg, W. P., & McGlinchey, R. E. (2015). Deployment-related psychiatric and behavioral conditions and their association with functional disability in OEF/OIF/OND veterans. *Journal of Traumatic Stress*, *18*, 25-33. https://doi.org/10.1002/jts.21979

Livas-Dlott, A., Fuller, B., Stein, G.L., Bridges, M., Mangual, -Figueroa, A., & Mireles, L. (2010). Command, competence, and cariño: Maternal socialization practices in Mexican American families. *Developmental Psychology*, *46*(3), 566-578. http://doi:10.1037/a0018016

Loo, C. M. (2016). PTSD among ethnic minority veterans. PTSD: National Center for PTSD: https://www.ptsd.va.gov/professional/treatment/cultural/ptsd-minority-vets.asp.

Longo, Y., Coyne, I., Joseph, S. (2017). The scales of general well-being (SGWB). *Personality and Individual Differences*, *109*, 148-159. https://doi.org/10.1016/j.paid2017.01.005

Longo, Y., Coyne, I., Joseph, S. (2018). Development of the short version of the scales of the general well-being: the 1-item SGWB. *Personality and Individual Differences*, 124, 31-34. https://doi.org/10.1016/j.paid.2017.11.042

Lopez, S. R., Barrio, C., Kopelowicz, A., & Vega, W. A. (2012). From documenting to eliminating disparities in mental health care for Latinos. *American Psychologist*, *67*(7),511-523. https://doi.org/10.1037/a0029737

Lopez-Class, M., Gonzalez-Castro, F., & Ramirez, A. G. (2011). Conceptions of acculturation: A review and statement of critical issues. *Social Science & Medicine*, *72*, 155-162. https://doi.org/10.1016/j.socscimed.2011.03.011

López-Tamayo, R., Seda, A., & Jason, L. A. (2016). The role of familismo and acculturation as moderators of the association between family conflict and substance abuse on Latino adult males. *Public Health*, *1*(2), 48-56. http://doi:10.17140/PHOJ-1-110

Lorenzo-Blanco, E. I., Unger, J. B., Baezconde-Garbanati, L., Ritt-Olson, A., & Soto, D. (2012). Acculturation, enculturation, and symptoms of depression in Hispanic youth: The roles of gender, Hispanic cultural values, and family functioning. *Journal of Youth and Adolesence*, *4*(10), 1350-1365. https://doi.org/10.1007/s10964-012-9774-7

Lundgren-Nilsson, A., Jonsdottir, I. H., Ahlborg, G., & Tennant, A. (2013). Construct validity of the psychological general wellbeing index (PGWBI) in a sample of patients undergoing treatment for stress-related exhaustion: a rash analysis.

*Health and Quality of Life Outcomes, 11*(2). http://doi: 10.1186/1477-7525-11-2

Lutz, A. (2008). Who joins the military? A look at race, class and immigration status. *Journal of Political and Military Sociology, 36*, 167-188. https://surface.syr.edu/cgi/viewcontent.cgi?article=1002&context=soc

MacCoun, R. J. & Hix, W. M. (2010). Unit cohesion and military performance. *Sexual orientation and U.S. military personnel policy: An update of RAND's 1993 Study*. https://www.law.berkeley.edu/files/csls/Unit_Cohesion_and_Military_Performance_Ch5

MacCoun, R. J., Kier, E., Belkin, A. (2006). Does social cohesion determine motivation in combat? *Armed Forces & Society*, *32*(4), 646-654. http://dx.doi.org/10.1177/0095327X05279181

Marin, G. & Gamba, R. J. (1996). A New Measurement of Acculturation for Hispanics: The Bidimensional Acculturation Scale for Hispanics (BAS). *Hispanic Journal of Behavioral Sciences*, *18*, 297-316. https://doi.org/10.1177/07399863960183002

Marín G., Sabogal F., VanOss Marín B., Otero-Sabogal F., Pérez-Stable E. J. (1987). Development of a short acculturation scale for Hispanics. *Hispanic Journal of Behavioral Sciences*. *9*,183–205. https://doi.org/10.1177/07399863870092005

Marmar, C. R., Schlenger, W. Henn-Haase, C., Qian, M., Purchia, E., Li, M., Corry, N., Williams, C. S., Ho, C. L., Horesch, D., Karstoft, K. I., & Kulka, R. A. (2015). Course of Posttraumatic stress disorder 40 years after the Vietnam War: Findings from the National Vietnam Veterans Longitudinal Study. *JAMA Psychiatry*, 72(9), 875-881. https://www.ncbi.nlm.nih.gov/pubmed/26201054

McFarland, M. R., Mixer, S. J. Webbe-Alamah, H., & Burk, R. (2015). Ethnonursing: A qualitative research method for studying culturally competent care across disciplines. *International Journal of Qualitative Methodology1*(3), 259-279. https://doi.org/10.1177%2F160940691201100306

Meyers, L. L., Strom, T. Q., Leskela, J., Thuras, P., Kehle-Forbes, S. M. & Curry, K.T. (2013). Service utilization following participation in cognitive processing therapy for prolonged exposure therapy for post-traumatic stress disorder. *Military Medicine*, *178*(1) 95-99. https://doi.org/10.7205/MILMED-D-12-00302

Miles, J. N., Marshall, G. N., & Schell, T. L. (2008). Spanish and English versions of the PTSD checklist-civilian version (PCL-C): Testing for differential item functioning. *Journal of Traumatic Stress*, *21*(4), 369-376. http://doi: 10.1002/jts.20349

Miranda, A. O., Bilot, J. M.., Peluso, P. R., Berman, K., & Van Meek, L. G. (2006). Latino families: The relevance of the connection among acculturation, family, dynamics, and health for family counseling research and practice. *The Family Journal: Counseling and Therapy for Couples and Families*, *14*(3), 268-273. https://doi.org/10.1177%2F1066480706287805

Miville, M., & Constantine, M. G. (2006). Sociocultural predictors of psychological help-seeking attitudes and behavior among Mexican American college students. *Cultural Diversity and Ethnic Minority Psychology*, *12*(3), 420-432.

http//doi: 10:1037/1099-9809.12.3.420

Morrison, J. A. (2012). Masculinity moderates the relationship between symptoms of PTSD and cardiac-related health behaviors in male veterans. *Psychology of Men & Masculinity*, *13*(2), 158-165. http://doi:10.1037./a002474186

Mott, J. M., Barrera, T. L., Hernandez, C., Graham, D. P., & Teng, E. J. (2014). Rates and predictors of referral for individual psychotherapy, group psychotherapy, and medications among Iraq and Afghanistan veterans with PTSD. *The Journal of Behavioral Health Services & Research*, *4,*99-109. https://link.springer.com/article/10.1007/s11414-013-9352-0

Mulvaney-Day, N. DeAngelo, D., Chen, C. N., Cook, B. L. & Alegria, M. (2012). Unmet need for treatment for substance use disorders across race and ethnicity. *Drug and Alcohol Dependence*, *S1*(S44-50). https://doi.org/10.1016/j.drugalcdep.2012.05.005

Nacasch, N., Foa, E. B., Huppert, J. D., Tzur, D., Fostick, L., Distein, Y., Polliack, M. D. & Zohar, J. (2011). Prolonged exposure therapy for combat and terror-related posttraumatic stress disorder: A randomized control comparison with treatment as usual. *Journal of Clinical Psychiatry*, *72*(9). https://doi.org/10.4088/jcp.09m05682blu

Nadal, K. L., Mazzula, S. L. Rivera, D. P. & Fujii-Doe, W. (2014). Microaggression and Latina/o Americans: An analysis of nativity, gender, and ethnicity. *Journal of Latina/o Psychology*, *2*(2), 67-78. https://doi:10.1037/lat000013

National Academies of Sciences, Engineering and Medicine (2018). *Evaluation of the*

*Department of Veterans Affairs Mental Health Services*.

National Center for Post-Traumatic Stress Disorder (2015). *Iraq War Clinician Guide*. Department of Veterans Affairs. https://www.healthquality.va.gov/guidelines/mh/ptsd/index.asp

National Center for Post-Traumatic Stress Disorder (2016). PTSD and physical health. https://www.ptsd/va.gov/PTSD/professional/co-occurring/ptsd-physical-health.asp

National Center for Post-Traumatic Stress Disorder (2017). The relationship between PTSD and suicide. https://www/ptsd.va.gov/professional/co-occurring/ptsd-suicide.asp

National Center for PTSD (2016). Treatment of Hispanic veterans with PTSD. http://www.ptsd.va.gov/professional/continuing_ed/hispanic-veterans.asp

Negy, C., Shreve, T. L., Jensen, B. J., Uddin, N. (2003). Ethnic identity, self-esteem, and ethnocentrism: A study of social identity versus multiculture theory of development. *Cultural Diversity and Ethnic Minority Diversity, 9*(4), 333-344. http://dx.doi.org/10.1037/1099-9809.9.4.333

Niles, B. L., Klunk-Gillis, J. K., Ryngala, D. J., Silberbogen, A. K., Paysnick, A., & Wolf, E. J. (2012). Comparing mindfulness and psychoeducation treatments for combat-related PTSD using a telehealth approach. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*, 538-547. http://doi: 10.1037/a0026161.

Norris, A., Ford, K. & Bova, C. (1996). Psychometrics of a brief acculturation scale for Hispanics in a probability sample of urban Hispanic adolescents. *Hispanic*

*Journal of Behavioral Sciences*, *1*(18), 29-38. https://doi.org/10.1177%2F07399863960181004

O'Connor T. M., Cerin, E., Lee, R. E., Parker, N., Chen, T. A., Hughes, S. O. Mendoza, J.A., & Baranowski, T. (2014). Environmental and cultural correlates of physical activity parenting practices among Latino parents with preschool-aged children. *BMC Public Health*, *14*(707). https://doi:org/10.1186/1471-2458-14-707

Ojeda, L., Flores, L. Y., Rosales-Meza, R., & Morales, A. (2011). Culturally competent qualitive research with Latino immigrants. *Hispanic Journal of Behavioral Sciences*, *20*(10), 1-20. https://doi.org/10.1177%2F0739986311402626

Ojeda, L. & Pina-Watson, B. (2013). Day laborers' life satisfaction: The role of familismo, spirituality, work, health, and discrimination. *Cultural Diversity and Ethnic Minority Psychology, 19*(3), 270-278. https://doi:10.1037/a0032961

Ortega, A. N. & Rosenheck, R. (2000). Posttraumatic stress disorder among Hispanic Vietnam veterans. *The American Journal of Psychiatry, 157*(4), 615-620.

Pappamihiel, C. J. & Pappamihiel, E. (2013). Cultural self-awareness as a crucial component of military cross-cultural competence. *Journal of Special Operations Medicine*, *13*(3), 62-29. https://www.ncbi.nim.nih.gov/pubmed/2408992

Parker, K. (2017). Facts about the U.S. military and its changing demographics. Pew Research Center. http://www.pewresearch.org/fact-tank/2017/04/13/6-facts-about-the-u-s- military-and-its-changing -demographics.

Pew Hispanic Center (2012). Labels don't fit: Hispanics and their views of identity. /2012/04when-labels-don't-fit-hispanics-and-their-views-of-identify.

https://assets.pewresearch.org/wp-content/uploads/sites/7/2012/04/PHC-Hispanic-Identity.pdf

Pew Hispanic Center (2017). Facts about the U.S. military and its changing demographics. views of identity. http://www.pewresearch.org/fact-tank/2017/04/13/6-facts-about-the-u-s-military-and-its-changing-demographics/

Pitman, J. O. E. (2014). Latino veterans with PTSD: A systematic review. *Behavioral Sciences*, *4*(3), 320-340. https://doi:10.3390/bs4030320

Pittman, J. O. E., Goldsmith, A. A., Lemmer, J. A., Kilmer, M. T., & Baker, D. G. (2011). Post-traumatic stress disorder, depression, and health-related quality of life in OEF/OIF veterans. *Quality of Life Research*, *21*, 99-103. https://doi.10.1007/s11136-011-9918-3

Pole, N., Best, S. R., Metzler, T., Marmar, C. R. (2005). Why are Hispanics at greater risk for PTSD? *Cultural Diversity and Ethnic Minority Psychology*, *11*(2), 144-161. https://doi.org/10.1037/1099-9809.11.2.144

Pole, N., Gone, J. P. & Kulkami, M. (2008). Posttraumatic stress disorder among ethno-racial minorities in the United States, *Clinical Psychology: Science and Practice*, *15*(1), 35-61. https://doi.org/10.1111/j.1468-2850.2008.00109.x

Porter, B., Bonanno, G. A., Frasco, M. A., Dursa, E. K., & Boyko, E. J. (2017). Prospective post-traumatic stress disorder trajectories in active duty and separated military personnel. *Journal of Psychiatry Research*, *89*, 55-64. http://dx.doi.org/10.1016/j.jpsychires.2017.01.016

Price, J. L. (2016). Findings from the National Vietnam Veteran's Readjustment Study.

Retrieved from https: www.ptsd.va.gov/professional/research-bio/research/vietnam-vets-study.asp.

Ramchand, R., Rudavsky, R., Grant, S., Tanelian, T., & Jaycox, L. (2015). Prevalence of risk factors for, and consequences of posttraumatic stress disorder and other mental health problems in military populations deployed to Iraq and Afghanistan. *Current Psychiatry Reports*, *17*(5). https://www.ncbi.nim.nih.gov/pubmed/25876141

Ray, S. L. & Vanstone, M. (2009). The impact of ptsd on veterans' family relationships: An interpretative phenomological inquiry. *International Journal of Nursing Studies, 46*(6). https://doi.org/10.1016/j.ijnurstu.2009.01.002.

Rojas-Vilches, A. P., Negy, C. & Reig-Ferrer, A. (2011). Attitudes toward seeking therapy among Puerto Rican and Cuban American young adults and their parents. *International Journal of Clinical and Health Psychology*, *11*(2), 313-341. https://www.researchgate.net/publication/288801699

Rozanova, J., Paraskevi, N., Smart, K., Roy, A., Southwick, S.M., Davidson, N, & Harpez-Rotem, I. (2015). "I'm coming home, tell the world I'm coming home." The long homecoming and mental health treatment of Iraq and Afghanistan war veterans. *Psychiatric Quarterly*, 1-17. http://linkspringer.com/article/10.1007/s1126-015-9398-7#

Russell, R., Brunero, S., & Lamont, S. (2014). Reflecting on transcultural care: Cultural care theory and mental health nursing. *Austin Journal of Nursing & Health Care,1*(2), 1010. https://www.researchgate.net/publication/267098560

Sabogal, F., Marin, G., Otero-Sabogal, R., Marin, B.V., & Perez-Stable, E.J. (1987). Hispanic familismo and acculturation: What changes and what doesn't. *Hispanic Journal of Behavioral Sciences*, *9*, 397-412. https://doi.org/10.1177%2F07399863870094003

Sanchez, E. (2013). U.S. military, a growing Latino army. *Parenting & Family*. http://nbclatino.com/category/people

Santor, D.A., Messervey, D. & Kusumakar, V. (2000). Measuring peer pressure, popularity, and conformity in adolescent boys and girls: Predicting school performance, sexual attitudes, and substance abuse. *Journal of Youth and Adolescence,* 29, 163-182. https://link.springer.com/article/10.1023/A:1005152515264

Schlenger, W. E., Corry, N. H., Kulka, R. A., Williams, C. S., Henn-Haase, C. & Marmar, C. R. (2015). Design and methods of the National Vietnam Veterans Longitudinal Study. *International Journal Methods Psychiatric Research*, 24(3), 186-203. https://doi.org/10.1002/mpr.1469

Schwartz, S. J., Weisskirch, R. S., Zamboanaga, B. L, Castillo, L. G., Ham., L. S., Huyhn, Q. L., Park, I. J. K., Donovan, R., Kim. S. Y., Vernon, M., Davis, M. J., & Cano, M. A.(2010). Dimensions of acculturation: Associations with health risk behaviors among college students from immigrant families. *Journal of Counseling Psychology.58*(1), 27-41. https://doi.org/10.1037/a0021356

Seal, K. H., Bertenthal, D., Miner, C. R., Sen, S., Marmar, C. (2007). Bringing the war back home: Mental health disorders among 103, 788 U.S. veterans returning from

Iraq and Afghanistan seen at Department of Veterans Affairs facilities. *Archives of Internal Medicine*. *167*(5), 476-482. https://doi.org/10.1001/archinte.167.5.476

Sherman, M. D., Larsen, J., & Borden, L. M. (2015). Broadening the focus in supporting reintegrating Iraq and Afghanistan veterans: Six key domains of functioning. *Professional Psychology: Research and Practice, 46*, 355–365. https:/doi/10.1037/pro0000043

Sharpless, B. A., & Barber, J. P. (2011). A clinician's guide to ptsd treatments for returning veterans. *Professional Psychology Research and Practice*, *42*, 8-15. http://dx.doi.org/10.1037/a0022351

Siebold, G. L. (2007). The essence of military group cohesion. *Armed Forces & Society. 33*(2), 286-295. https://doi.org/10.1177/0095327X06294173

Siebold, G. L. & Lindsay, T. J. (2000). The relationship between demographic descriptors and soldier perceived cohesion and motivation. *Military Psychology*, *11*, 109-128. https://doi.org/10.1207/s15327876mp1101_6

Smith-Morris, C., Morales-Campos, D., & Castaneda-Alvarez, E. A. (2013). An anthropology of familismo on narratives and description of Mexican immigrants. *Hispanic Journal of Behavioral Sciences*, *35*(1), 35-60. https://doi.org/10.1177%2F0739986312459508

Smith, R. T. & True, G. (2014). *Returning vets face 'warring identities' distress. Science Daily*. https://www.sciencedaily.com/releases/2014/03/140306152406.htm

Smokowski, P. R., Rose, R. & Bacallao, M. L. (2008). Acculturation and Latino family processes: How cultural involvement, biculturalism, and acculturation gaps

influence family dynamics. *Family Relations, 57*, 295-308. https://doi.org/10.1111/j.1741-3729.2008.00501.x

Sobral, J., Villar, P., Gomez-Fraguela, J. A., Romero, E. & Luengo, M. A. (2013). Interactive effects of personality and separation as acculturation style on adolescent behavior. *International Journal of Clinical and Health Psychology*, *13*(1), 25-31. https://doi.org/10.1016/S1697-2600(13)70004-8

Spiegel, P. E., & Schultz, K. S. (2009). The influence of preretirement planning and transferability of skills of naval officers' retirement satisfaction and adjustment. *Military Psychology, 15*(4), 285-307. https://doi.org/10.1207/S15327876MP1504_3

Spoont, M. R., Nelson, D. B., Murdoch, M., Sayer, N. A., Nugent, S., Rector, T., & Westmeyer, J. (2014). Are there racial/ethnic disparities in VA PTSD treatment retention? *Depression and Anxiety*. https://doi.org/10.1002/da.22295

Spoont, M. R., Sayer, N. A., Kehle-Forbes, S. M., & Meis, L. A. & Nelson, D. B. (2017). A prospective study of racial and ethnic variation in VA psychotherapy services for PTSD. *Psychiatric Services, 68*(3), 231—237. https://doi.org/10.1176/appi.ps.201600086

Sripada, R. K., Bonhert, K. M., Ganoczy, D., Blow, F. C., Valenstein, M. & Pfeiffer, P. N. (2016). Initial group versus therapy for posttraumatic stress disorder and subsequent follow-up treatment adequacy. *Psychological Services*, *13*(4), 349-355. http://dx.doi.org/10.1037/ser000077

Stecker, T., Shiner, B., Watts, B. V., Jones, M. & Conner, K. R. (2013). Treatment-

seeking barriers for veterans of the Iraq and Afghanistan conflicts who screen positive for PTSD. *Psychiatric Services*, *64*(3), 280-283. https://doi.org/10.1176/appi.ps.001372012

Steenkamp, M.M. (2014). EBT on the one-size-fits-all approach to PTSD in the VA not supported by the evidence. *American Psychologist*, *69*(7), 706-707. https://doi.org/10.1037/a0037360

Stevens, J. P. (2010). *Applied multivariate statistics for the social sciences*. Franklin Media.

Strom, T. Q., Gavian, M. E., Possis, E., Loughlin, J., Thao, B., Linardatos, E., Leskela, J. & Siegel, W. (2012). Cultural and ethical considerations when working with military personnel and veterans: A primer for VA training programs. *Training and Education in Professional Psychology*, 6(2), 67-75. https://doi:10.37/a0028275

Sue. D. W. & Sue, D. (2015) Counseling the Culturally Diverse: Theory and Practice. 8th ed. John Wiley & Sons.

Szafranski, D. D., Smith, B. N. Gros, D. F & Resick, P .A. (2017). High rates of PTSD treatment dropout: A possible red herring. *Journal of Anxiety Disorders*, *47*, 91-98. https://doi.org/10.1016/j.janxdis.2017.01.002

Tabachnick, B. G., & Fidell, L. S. (2013). *Using Multivariate Statistics, 6th ed. Boston*: Allyn and Bacon.

Tajfel, H., Turner, T., & Jost, J. T. (2004). The Social Identity Theory of Intergroup Behavior. In J.C. Turner (Ed.), *Psychology of Intergroup Behavior* (pp. 276-293). Psychology Press.

Taylor, P., Lopez, M. H., Martinez, J. H. & Velasco, G. (2012). When labels don't fit: Hispanics and their views of identity. Pew Research Center.

Toelch, U. & Dolan, R. J. (2015). Information and normative influences in conformity from a neurocomputational perspective. *Trends in Cognitive Science*, 19(10), 579-589. http: dx.doi.org/10.1016/j.tics.2015.07.007

Torres, L., & Ong, A. G. (2012). A daily diary investigation of Latino ethnic identity, discrimination, and depression. *Cultural Diversity and Ethnic Minority Psychology*, 16(4), 561-568. https://psycnet.apa.org/doi/10.1037/a0020652

Torres, L. (2010). Predicting levels of Latino depression, acculturation, acculturative stress and coping. *Cultural Diversity and Ethnic Minority Psychology, 16*(2), 256-263. http://dx.doi.org/10.1037/a0017357

Torres, L., Driscoll, M. W., & Voell, M. (2012). Discrimination, acculturation, acculturative stress, and Latino psychological distress: A moderated mediational model. *Cultural Diversity and Ethnic Minority Psychology,18*(1), 17-25. https://doi.org/10.1037/a0026710

Trevino, F. (1987). Standardized terminology for Hispanic population Terms. *American Journal of Public Health, 77*(1), 69-72. https://dx.doi.org/10.2105%2Fajph.77.1.69

Tuerk, P. W., Yoder, M., Grubaugh, A., Myrick, H., Hamner, M., & Aciermo, R. (2011). Prolonged exposure therapy for combat-related exposure therapy for combat related posttraumatic stress disorder: An examination of treatment effectiveness for veterans of the wars in Afghanistan and Iraq. *Journal of Anxiety Disorders*,

*25*(3), 397-403. https://doi.org/10.1016/j.janxdis.2010.11.002

U.S. Army. (2016). *Soldier for life*. http://soldier for life.army.mil/about

U.S. Census Bureau (2012). *The Hispanic population*:2012. https://www.census.gov/data/datasets/2012/demo/popproj/2012-popproj.html

U.S. Census Bureau (2016). *The Hispanic population*:2010 www.census.gov/newsroom/facts-for-features/2016/cb16-ff16.html

U.S. Department of Veterans Affairs (2016) FY 2014-2016 Strategic Plan. https://www.va.gov/op3/docs/strategicplanning/va2014-2020strategicplan.pdf

U.S. Department of Veterans Affairs (2004). *Iraq war clinician guide-2nd Ed.* http://www.ptsd.va.gov/professional/materials/Iraq-war-clinican-guide..asp.

U.S. Department of Veterans Affairs (2014). Public section. http://www.ptsd.va.gov/public pages/how- common- is- ptsd.asp

U.S. Department of Veterans Affairs (2015). http://www.ptsd.va.gov/professional/consult/index.asp

U.S. Department of Veterans Affairs (2017). The relationship between PTSD and suicide. http://www.ptsd.va.gov/professional/co-occurring/ptsd-suiside.asp

Valentine, A., DeAngelo, D., Alegria, M. & Cook, B. L. (2014). Translating disparities research to policy: A qualitative study of state mental health policymakers' perceptions of mental health care disparities report cards. *Psychological Services*, *11*(4), 377-387. https:/doi/10.1037/a0037978

Vasterling, J. J., Proctor, S. P., Friedman, M. J., Hoge, C. W., Heeren, T., King, L. A., & King, D. W. (2016). PTSD symptom increases in Iraq-deployed with nondeployed

soldiers and associates with baselines symptoms, deployment experiences, and post deployment stress. *Journal of Traumatic Stress, 23*(1), 41-51. https://doi.org/10.1002/jts.20487

Vrij. P., Pannell, H.& Ost, J. (2005). The influence of social pressure and black clothing on crime judgments. *Psychology Crime & Law,* 11(3), 265-274. https://doi.org/10.1080/10683160410001680780

Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013). PTSD checklist for DSM-5 (PCL-5)-PTSD. http://www.ptsd.va.gov/professional/assessment/adult-sr/ptsd-checklist.asp.

Webb County Veterans Services. (2017). www.webbcountytx.gov/ VeteranServices

Webster Dictionary (2016). http://www.merriam-webster.com/dictionary/language.

Weisaeth, L. (2015). The History of Psychic Trauma. In *Handbook of PTSD: Science and Practice (2nd ed., pp. 38-59).* New York, N Y: Guilford Publications.

Welsch, R.N. (2013). *Posttraumatic Stress Disorder (PTSD) in the Latino Culture: A Proposed Culturally-Responsive Intervention Program for Latinas.* Publication No. 561, Masters Theses, Claremont Colleges. http://scholarship.claremont.edu./cmc_theses/561

CMC Senior Thesis Paper 561.

Williams, J., Brown, J. M., Bray, R. M., Anderson Goodell, E. M., Rae Olmsted, K.& Adler, A.B. (2016). Unit cohesion, resilience, and mental health of soldiers in basic training. *Military Psychology*, *28(*4), 241-250. http://dx.doi.org/10.1037/mil0000120

Wood, W. & Hayes, T. (2012). Social influence on consumer decisions: Motives, modes and consequences. *Journal of Consumer Psychology*, *22*, 324-328. https://doi.org/10.1016/j.jcps.2012.05.003

Worthen, M., Rathod, S.D., Cohen, G., Sampson, L., Ursano, R., Gifford, R., Fullerton, C., Galea, S. & Ahern, J. (2015). Anger-and posttraumatic stress disorder symptom severity in a trauma-exposed military population: Differences by trauma, context, and gender. *Journal of Traumatic Stress*, *28*, 539-546. https://doi.org/10.1002/jts.22050

Wortmann, J. H., Jordan, A. H., Weathers, F.W., Resick, P.A., Dondaville, K.A., Hall-Clark, B., Foa, E. B., Young-McCaughan, S., Yarvis, J.S., Hembree, E.A., Mintz, J., Peterson, A.L., Litz, B. T. (2016). Psychometric analysis of the ptsd checklist - 5 among treatment seeking military service members. *Psychological Assessment*, 28(11), 1392-1403. https://doi.org/10.1037/pas0000260

Xue, C., Ge, Y. Tang, B., Liu, Y., Kang, P., Wang, M., Zhang, L., & Schmahl, C., (2015). A meta-analysis of risk factors for combat-related PTSD among military personnel and veterans. *PLoS One, 10*(3). https://doi.org/10.1371/journal.pone.0120270

Yoder, M., Tuerk, P. W., Price, M., Grubaugh, A. L., Strachan, M., Myrick, H., & Acierno, R. (2011). Prolonged Exposure Therapy for Combat-Related Posttraumatic Stress Disorder: Comparing Outcomes for Veterans of Different Wars. *Psychological Services*. *9*(1), 16-25 https://doi: 10.1037/a0026279

Zavala, M.F. (2014). *Latino veterans and the effects of post-traumatic stress disorder*. (Order No. 3517813). Available from ProQuest Dissertations & Theses Global. (1033332817). Retrieved from https://ezp.waldenulibrary.org/login?qurl=https%3A%2F%2Fsearch.proquest.com%2Fdocview%2F1033332817%3Fac

# Appendix A: Demographic Information

(This information will only be filled out pre-treatment)

**Age**: _____
**Sex**: _____Male _____Female
**Living Situation**: _____Parents _____Partner _____Children
**Branch of Military:** _____Army
_____Air Force
_____Marines
_____Navy
_____National Guard
_____Army Reserves
_____Air Force Reserves
_____Marine Reserves
_____Navy Reserves

Please write your answer on the line.

| | | | | | |
|---|---|---|---|---|---|
| A 1 v Where were you born? | | | | | |
| A2- Where was your mother born? | | | | | |
| Please circle your answers. | | | | | |
| A3. Growing up was your family | High income | Middle income | Low income | | |
| A4. Currently would you consider yourself… | High income | Middle income | Low income | | |
| A5. What is your highest education level? | Did not complete high school GED<br>High school graduate Some college credit<br>Post college graduate | | | | |
| A6. Prior to deployment, were you... | Active Duty | National Guard/Reserve | Not applicable (Never deployed) | | |
| A7. In what conflict did you serve? | OEF/ OIF | Vietnam<br>Korea | WW II | Peacetime | Other |

# Appendix B: PTSD Checklist for DSM-5 (PCL-5)

(This survey will be filled out pre- and post- treatment)

| **Instructions:** Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.<br>**In the past month, how much were you bothered by:** | **Not at all** | **A little bit** | **Moderately** | **Quite a bit** | **Extremely** |
|---|---|---|---|---|---|
| 1. Repeated, disturbing, and unwanted memories of the stressful experience? | 0 | 1 | 2 | 3 | 4 |
| 2. Repeated, disturbing dreams of the stressful experience? | 0 | 1 | 2 | 3 | 4 |
| 3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)? | 0 | 1 | 2 | 3 | 4 |
| 4. Feeling very upset when something reminded you of the stressful experience? | 0 | 1 | 2 | 3 | 4 |
| 5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)? | 0 | 1 | 2 | 3 | 4 |
| 6. Avoiding memories, thoughts, or feelings related to the stressful experience? | 0 | 1 | 2 | 3 | 4 |
| 7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)? | 0 | 1 | 2 | 3 | 4 |
| 8. Trouble remembering important parts of the stressful experience? | 0 | 1 | 2 | 3 | 4 |
| 9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)? | 0 | 1 | 2 | 3 | 4 |
| 10. Blaming yourself or someone else for the stressful experience or what happened after it? | 0 | 1 | 2 | 3 | 4 |
| 11. Having strong negative feelings such as fear, horror, anger, guilt, or shame? | 0 | 1 | 2 | 3 | 4 |
| 12. Loss of interest in activities that you used to enjoy? | 0 | 1 | 2 | 3 | 4 |
| 13. Feeling distant or cut off from other people? | 0 | 1 | 2 | 3 | 4 |
| 14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)? | 0 | 1 | 2 | 3 | 4 |
| 15. Irritable behavior, angry outbursts, or acting aggressively? | 0 | 1 | 2 | 3 | 4 |
| 16. Taking too many risks or doing things that could cause you harm? | 0 | 1 | 2 | 3 | 4 |
| 17. Being “super alert” or watchful or on guard? | 0 | 1 | 2 | 3 | 4 |
| 18. Feeling jumpy or easily startled? | 0 | 1 | 2 | 3 | 4 |
| 19. Having difficulty concentrating? | 0 | 1 | 2 | 3 | 4 |
| 20. Trouble falling or staying asleep? | 0 | 1 | 2 | 3 | 4 |

# Appendix C: The General Well-Being Scale

(This scale will be filled out pre- and post- treatment)

For each question, choose the answer that best describes how you have felt and how things have been going for you *during the past month*.

1. How have you been feeling in general?
   5 _____ In excellent spirits
   4 _____ In very good spirits
   3 _____ In good spirits mostly
   2 _____ I've been up and down in spirits a lot
   1 _____ In low spirits mostly
   0 _____ In very low spirits

2. Have you been bothered by nervousness or your "nerves"?
   0 _____ Extremely so—to the point where I could not work or take care of things
   1 _____ Very much so
   2 _____ Quite a bit
   3 _____ Some—enough to bother me
   4 _____ A little
   5 _____ Not at all

3. Have you been in firm control of your behavior, thoughts, emotions, or feelings?
   5 _____ Yes, definitely so
   4 _____ Yes, for the most part
   3 _____ Generally so
   2 _____ Not too well
   1 _____ No, and I am somewhat disturbed
   0 _____ No, and I am very disturbed

4. Have you felt so sad, discouraged, hopeless, or had so many problems that you wondered if anything was worthwhile?
   0 _____ Extremely so—to the point I have just about given up
   1 _____ Very much so
   2 _____ Quite a bit
   3 _____ Some—enough to bother me
   4 _____ A little bit
   5 _____ Not at all

5. Have you been under or felt you were under any strain, stress, or pressure?
   0 _____ Yes—almost more than I could bear
   1 _____ Yes—quite a bit of pressure
   2 _____ Yes—some, more than usual
   3 _____ Yes—some, but about usual
   4 _____ Yes—a little
   5 _____ Not at all

6. How happy, satisfied, or pleased have you been with your personal life?
   5 _____ Extremely happy—couldn't have been more satisfied or pleased
   4 _____ Very happy
   3 _____ Fairly happy
   2 _____ Satisfied—pleased
   1 _____ Somewhat dissatisfied
   0 _____ Very dissatisfied

7. Have you had reason to wonder if you were losing your mind or losing control over the way you act, talk, think, feel, or of your memory?
   5 _____ Not at all
   4 _____ Only a little
   3 _____ Some, but not enough to be concerned
   2 _____ Some, and I've been a little concerned
   1 _____ Some, and I am quite concerned
   0 _____ Much, and I'm very concerned

8. Have you been anxious, worried, or upset?
   0 _____ Extremely so—to the point of being sick, or almost sick
   1 _____ Very much so
   2 _____ Quite a bit
   3 _____ Some—enough to bother me
   4 _____ A little bit
   5 _____ Not at all

9. Have you been waking up fresh and rested?
   5 _____ Every day
   4 _____ Most every day
   3 _____ Fairly often
   2 _____ Less than half the time
   1 _____ Rarely
   0 _____ None of the time

10. Have you been bothered by any illness, bodily disorder, pain, or fears about your health?
   0 _____ All the time
   1 _____ Most of the time
   2 _____ A good bit of the time
   3 _____ Some of the time
   4 _____ A little of the time
   5 _____ None of the time

11. Has your daily life been full of things that are interesting to you?
   5 _____ All the time
   4 _____ Most of the time
   3 _____ A good bit of the time
   2 _____ Some of the time
   1 _____ A little of the time
   0 _____ None of the time

12. Have you felt downhearted and blue?

0 _____ All the time
1 _____ Most of the time
2 _____ A good bit of the time
3 _____ Some of the time
4 _____ A little of the time
5 _____ None of the time

13. Have you been feeling emotionally stable and sure of yourself?

5 _____ All the time
4 _____ Most of the time
3 _____ A good bit of the time
2 _____ Some of the time
1 _____ A little of the time
0 _____ None of the time

# Appendix D: Bidimensional Acculturation Scale

## BAS

| (Bubble only one response to the following questions) | almost never | sometimes | often | almost always |
|---|---|---|---|---|
| 1. How often do you speak English? | ○ | ○ | ○ | ○ |
| 2. How often do you speak in English with your friends? | ○ | ○ | ○ | ○ |
| 3. How often do you think in English? | ○ | ○ | ○ | ○ |
| 4. How often do you speak Spanish? | ○ | ○ | ○ | ○ |
| 5. How often do you speak in Spanish with your friends? | ○ | ○ | ○ | ○ |
| 6. How often do you think in Spanish? | ○ | ○ | ○ | ○ |
| | **very poorly** | **poorly** | **well** | **very well** |
| 7. How well do you speak English? | ○ | ○ | ○ | ○ |
| 8. How well do you read in English? | ○ | ○ | ○ | ○ |
| 9. How well do you understand television programs in English? | ○ | ○ | ○ | ○ |
| 10. How well do you understand radio programs in English? | ○ | ○ | ○ | ○ |
| 11. How well do you write in English? | ○ | ○ | ○ | ○ |
| 12. How well do you understand music in English? | ○ | ○ | ○ | ○ |
| 13. How well do you speak Spanish? | ○ | ○ | ○ | ○ |
| 14. How well do you read in Spanish? | ○ | ○ | ○ | ○ |
| 15. How well do you understand television programs in Spanish? | ○ | ○ | ○ | ○ |
| 16. How well do you understand radio programs in Spanish? | ○ | ○ | ○ | ○ |
| 17. How well do you write in Spanish? | ○ | ○ | ○ | ○ |
| 18. How well do you understand music in Spanish? | ○ | ○ | ○ | ○ |
| | **almost never** | **sometimes** | **often** | **almost always** |
| 19. How often do you watch television programs in English? | ○ | ○ | ○ | ○ |
| 20. How often do you listen to radio programs in English? | ○ | ○ | ○ | ○ |
| 21. How often do you listen to music in English | ○ | ○ | ○ | ○ |
| 22. How often do you watch television programs in Spanish? | ○ | ○ | ○ | ○ |
| 23. How often do you listen to radio programs in Spanish? | ○ | ○ | ○ | ○ |
| 24. How often do you listen to music in Spanish? | ○ | ○ | ○ | ○ |

Appendix E: Identification of Services

(This scale will only be filled out pre-treatment)

**If you will be receiving:**

- **Individual therapy**

**Who will be providing the therapy:**

- Psychologist
- Licensed Professional Counselor
- Social Worker
- Nurse Practitioner

**Please identify their Race:**

- White
- Black/African American
- Asian
- American Indian
- Alaskan Native
- Native Hawaiian
- Pacific Islander
- Other: _____

- **Group Therapy**

**Who will be providing the therapy:**

- Psychologist
- Licensed Professional Counselor
- Social Worker
- Nurse Practitioner

**Please identify their Race:**

- White
- Black/African American
- Asian
- American Indian
- Alaskan Native
- Native Hawaiian
- Pacific Islander
- Other: _____

- **Combination of both**

**Who will be providing the therapy:**

- Psychologist

- Licensed Professional Counselor
- Social Worker
- Nurse Practitioner

**Please identify their Race:**

- White
- Black/African American
- Asian
- American Indian
- Alaskan Native
- Native Hawaiian
- Pacific Islander
- Other: _____

Appendix F: Identification of Services

(This scale will only be filled out post-treatment)

**If you received:**

- **Individual therapy**

**Who provided the therapy:**

- Psychologist
- Licensed Professional Counselor
- Social Worker
- Nurse Practitioner

**Please identify their Race:**

- White
- Black/African American
- Asian
- American Indian
- Alaskan Native
- Native Hawaiian
- Pacific Islander
- Other

- **Group Therapy**

**Who provided the therapy:**

- Psychologist
- Licensed Professional Counselor
- Social Worker
- Nurse Practitioner

**Please identify their Race:**

- White
- Black/African American
- Asian
- American Indian
- Alaskan Native
- Native Hawaiian
- Pacific Islander
- Other: _____

- **Combination of both**

**Who provided the therapy:**

- Psychologist

- Licensed Professional Counselor
- Social Worker
- Nurse Practitioner

**Please identify their Race:**

- White
- Black/African American
- Asian
- American Indian
- Alaskan Native
- Native Hawaiian
- Pacific Islander
- Other: _____

# Appendix G: List of Providers

If you experience discomfort while answering this questionnaire you can contact a counselor trained to help those with traumatic memories and/or posttraumatic stress disorder. I have listed some resources below or you can find local counselors/therapists in your phone directory.

Thank you so much for your contribution to helping get a better understanding of treatment outcomes and correlates of post-traumatic stress disorder for Hispanic veterans.

VA Outpatient Clinic (956) 523-7850
U.S. Department of Veterans Affairs www.va.gov
National Center for Posttraumatic Stress Disorder www.ncptsd.va.gov

Thank you for your Service and your participation in the survey.