Mental Health Treatment Seeking Behavior of First- and Second- Generation Immigrant Veterans

Doctoral Dissertation

Submitted to the

Faculty of the Wurzweiler School of Social Work

Yeshiva University

In Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy of Social Welfare

Submitted by

Howard Chi

December 2022

© Copyright Howard Chi, 2022

All rights reserved

Abstract

First- and second- generation immigrant veterans (target population) constitute 13% of veterans at large; however, this population's mental treatment seeking behavior is relatively unknown. Current literature on immigrants and veterans shows that factors related to mental health stigma and cultural mismatch are significant barriers to seeking mental treatment. This cross-sectional study (n-=131) explored the treatment seeking behavior for first- and second- generation immigrant veterans. Logistic regression was used to assess the impact of treatment barriers and facilitators identified in prior research on immigrants and veterans. The findings revealed that the facilitators "access to a culturally competent therapist" and "encouragement from family and friends" increased the odds of seeking mental health treatment; while the barriers of 'lack of mental health access' and 'negative perceptions of mental health' both decreased the odds of seeking mental health treatment, and bicultural stress increased the odds of seeking mental health treatment. Findings also revealed that a model that included both barriers and facilitators was stronger than models that included only barriers or only facilitators. Implications for future research and social work education, practice, and policy, include the need to increase access, both in accessing a culturally competent therapist and access to mental health care services.

Keywords: immigrant veteran, mental health treatment seeking, bicultural stress, mental health access, perceptions of mental health, cultural competence

Acknowledgments

I would like to acknowledge the faculty members that have supported me through this dissertation. First, I would like to thank my chair, Dr. Kerry Dunn. Words cannot describe how grateful I am to you for investing so much time and effort into this study, and I will always carry with me the lessons I have learned from you. Thank you for allowing me to give a different voice and perspective, and I hope to conduct more research in the future. It was an honor to work with you and be your student. To Dr. Randy Nedegaard, thank you for helping a fellow Air Force veteran in being part of this committee. I know you did not have to take on this commitment, so I am forever grateful to you. Your insights have been invaluable and is a testament to the amount of work you have done for veterans. I hope our paths will cross again in the future. I would also like to thank Dr. Rain Lee. Thank you for putting in so much time these past two semesters with me. You have taught me more than you know (I will never forget the soy sauce analogy), and I am so grateful that you were a part of this committee. The students are Wurzweiler are lucky to have you.

I would also like to acknowledge my mother, Yali Chi. One of the greatest joys of my life is being your son. 谢谢你的所有牺牲, 我们做到了! Finally, my wife, Phoebe De Guzman-Chi, thank you so much for being so kind, patient, supportive and loving. You are such an inspirational person and I hope to continue to learn from you every day. Mahal Kita.

The committee for this doctoral dissertation consisted of:

Advisor’s Name: Dr. Kerry Dunn, PhD, JD, MSW

Committee Member: Dr. Rain Lee, PhD, MSW

Committee Member: Dr. Randy Nedegaard, PhD, LCSW, LP

Yeshiva University

Table of Contents

Chapter One Introduction 1

Statement of Purpose 1

Significance of Social Work 1

Social Work Values and Anticipated Contributions to Practice 2

Summary 4

Chapter Two Study Problem 6

Overview of the Problem 6

History of PTSD 7

History of Immigrant Veterans in the US 7

Current Status of the Problem 8

Relevant Policies and Judicial Decisions for Immigrant Veterans 10

Definitions 11

Conclusion 12

Chapter Three Literature Review 13

Introduction 13

Methods 13

Findings 14

Immigrants and Trauma 14

Prior trauma before enlisting in the military and intergenerational trauma 19

Minority Veterans and PTSD 23

Treatment seeking barriers and behavior for veterans 28

Treatment Seeking Barriers and Behavior for immigrants and immigrant veterans 31

Facilitators in seeking mental health treatment for veterans and immigrants 35

Conclusion 36

Chapter Four Theoretical Framework 39

Ecological Systems Theory 39

Ecological View of Psychological Trauma and Trauma Recovery 43

Summary of Theoretical Framework 45

Chapter Five Research Question 46

Research Questions and Hypotheses 47

Research #1 47

Hypothesis #1a, 1b, 1c 47

Research Question #2 47

Hypothesis #2 48

Research Question #3 48

Hypothesis #3 48

Research Question #4 48

Hypothesis #4 48

Chapter Six Methodology 49

The Research Perspective 49

Data and Subjects 49

Research Design 50

Measures 50

Demographics 51

Bicultural Stress Scale 51

Barriers to seeking mental health counseling (BMHC) scale 53

Fit within Veterans Health Administration (VHA) scale 56

Discrimination Scales (Lifetime and Everyday) 56

Everyday Discrimination scale 57

Lifetime Discrimination scale 58

Demographic choices of lifetime discrimination scale 58

Ethical Concerns and Protection of human subjects 59

Procedures 59

Data Analysis 60

Control Variables 62

Chapter Seven Findings 68

Descriptive Statistics 69

Analyses 75

Reliability Analysis 75

Barriers to seeking mental health counseling (BMHC) scale 75

Lifetime Discrimination Scale – Prior to, and during, military service 76

Everyday Discrimination Scale - Prior to, and during, military service 76

Bicultural Stress Scale 77

Fit within Veterans Health Administration (VHA) scale 77

Hypothesis testing 79

H1a*: First- and second- immigrant veterans with a high BMHC score are less likely to seek mental health treatment* 79

H1b*: All the documented barriers among veterans and immigrants each reduce the likelihood of mental health seeking amongst the target population* 79

H1c: *A model combining all the documented barriers will be a strong indicator in treatment seeking behavior* 80

H2*: Discrimination experienced prior to military service, discrimination during military service, and bicultural stress will decrease treatment seeking for the target population* 81

H3*: Access to a culturally competent therapist, encouragement from family and friends, and treatment fit within the VA will increase treatment seeking for the target population* 82

H4*: A model including a combination of barriers and facilitators will be a stronger predictor of treatment seeking behavior than a model that only includes barriers or facilitators* 83

Barriers and Facilitators of seeking treatment. *The facilitator of encouragement from family and friends is the protective factor with the barriers of negative perception of mental health and lack of access.* 84

Chapter Eight Discussion 86

Discussion 86

Treatment Seeking 86

Negative Perceptions of Mental Health 87

Lack of Access 87

Bicultural Stress 88

Access to a Culturally Competent Therapist 88

Encouragement from family friends 89

Recommendations for Social Work 89

Social Work Education 89

Social Work Practice 91

Social Work Policy 93

Implications for Further Research 96

The role of discrimination 97

Models in predicting seeking mental health treatment 97

Fit within the VHA 98

Differences in First- and Second-Generation Immigrant Veterans 98

Lack of Access 99

The use of technology 99

Facilitators for seeking mental health treatment 100

Gender 100

Race/Ethnicity 101

Treatment seeking 101

Limitations of the Study 102
Conclusion 103
References 105
Appendix A: Survey Questions 117
Appendix B: Letter to Administrator of veteran groups 139
Appendix C: Letter to Potential Participants 141
Appendix D: Informed Consent 144
Appendix E: CITI Ethics Training Completion Certificate 147
Appendix F: Variance Inflation Factor (VIF) 148

Tables

Table 6.1 Variables and Hypotheses 63

Table 7.1 Age, race, years of military service, deployment 69

Table 7.2 Immigrant status 70

Table 7.3 Mental health issues and sought mental health treatment 71

Table 7.4 First generation immigrant veteran – descriptive statistics and facilitators 72

Table 7.5 Second generation immigrant veterans – Descriptive Statistics and Facilitators 72

Table 7.6 First generation immigrant veterans scores 74

Table 7.7 Second generation immigrant veteran scores 74

Appendix F Variance Inflation Factor 148

Chapter One: Introduction

Statement of Purpose and brief Methodological Description

This study examined the treatment seeking behavior of first- and second-generation immigrant veterans. The specific aims of this study are to understand the treatment seeking behavior of mental health services amongst this population. The type of study that was conducted was quantitative research, with a cross-sectional design. Cross-sectional research consists of collecting data from many participants at a single point in time (Creswell & Creswell, 2018). Quantitative research is used to provide an explanation for the relationship between variables that the researcher chooses to test (Creswell & Creswell, 2018). The data was gathered using an online survey, Qualtrics, to veterans across the nation. Online recruitment consisted of posting on various Facebook groups (with the permission of the administrator) and through newsletters of veteran groups. The study used non-probability sampling, where the researcher selected participants with a subjective method and not random selection (Creswell & Plano Clark, 2017). The data was analyzed using the software Stata, which allows the researcher to find correlation between variables. Descriptive statistics was used to analyze independent variables, such as the measure of frequency (count, percent), tendency (mean, median, mode), dispersion (range, standard deviation), and position (percentile and quartile ranks) (Tabachnick & Fidell, 2013) as well as provide significance and predictive models. The study used eighty-four quantitative survey questions, excluding the demographic portion. The seventy survey questions were derived from four existing scales, that center around issues with bicultural stressors, discrimination, treatment fit within the VA health care system, and barriers to seeking mental health counseling.

Significance in Social Work

Immigrant veterans have been a vital part of the military, many of whom sought US Citizenship through fighting in various wars and conflicts (Bredbrenner, 2012). While these veterans, and other veterans alike, have fought for this country, many have worse outcomes than the population at large. Veterans are almost twice as likely to be diagnosed with PTSD than the general population (Muller et al., 2017) but only about half are seeking treatment for PTSD (Barbour, 2010). Immigrants could be even more susceptible to PTSD, with some estimates being five times higher than the general population (Duckers, Alisic & Brewin, 2016) but are 40% less likely to seek mental health treatment than their US-born counterparts (Lee & Matejkowski, 2012). First- and second- generation immigrant veterans are a significant portion of the veteran population at large (13%) (Zong & Batalova, 2019) and further investigation is needed to understand this group of veterans, specifically in their treatment seeking behaviors to improve mental health outcomes.

Social Work Values and Anticipated Contributions to Practice

The social work profession primary focus is to help meet the basic human needs of everyone, in particularly those of disadvantaged and vulnerable circumstances and backgrounds. There are six core values in the social work profession, and they are service, social justice, dignity and worth of the person, importance of human relationships, integrity, and competence (NASW, 2017). While all the core values can apply to this study, social justice and dignity and worth of the person holds particular relevance. Social workers must challenge social injustices and pursue social change (NASW, 2017). First- and second- generation immigrant veterans have the difficulties associated with being a veteran- higher propensity of developing mental health issues, higher suicide rates, homelessness- while also being confronted with issues that are associated with being an immigrant- acculturation and bicultural stress, discrimination, and

xenophobia (Tummala-Narra, 2021). The challenges with mental health treatment seeking are well documented with veterans (Williston et al., 2019) and with immigrants (Lee et al., 2021) with a variety of factors that inhibit these groups from seeking mental health treatment, even though there is evidence that both groups have a higher propensity of developing mental health issues than the general population. The principle of social justice applies here in that this group of veterans are exceptionally vulnerable to developing mental health issues and develop negative outcomes but, as the literature demonstrates, are not seeking mental health treatment at desirable rates. Addressing this issue can provide social justice to this marginalized, and often ignored, subgroup of veterans.

The NASW principle of dignity and worth of the person is defined as social workers must respect the inherent dignity and worth of the person (NASW, 2017). More specifically, this principle requires that social workers treat individuals in a caring and respectful manner, while being mindful of cultural and ethnic diversity (NASW, 2017). While studies have addressed veterans at large with treatment seeking barriers (Johnson & Possemato, 2021) and studied the effects of discrimination amongst veterans in the context of race (Tsai & Kong, 2012), very little is known about how these issues effect first- and second-generation immigrant veterans. Current studies and data can be helpful with the target population, in that they share related experiences of being a veteran and being a minority. However, having related experiences as a group does not mean that they are the same experiences. In keeping with this NASW principle, and to best serve this population, being mindful of cultural and ethnic diversity is paramount. Having a better understanding of the unique treatment barriers and behaviors can help those in this community feel heard and seen, and lead to better treatment outreach programs, modules, and outcomes for this subgroup of veterans.

Summary

This study has seven chapters, which include: Chapter 1, Introduction, which consists of an overview of the study, purse of the study, brief synopsis of the methodology, and the connection to social work practice, using the NASW as the framework. Chapter 2, The Study Problem, consists of the overview of mental health issues, which include PTSD, and the history of immigrant veterans, current status of mental health issues and veterans, immigrants, and immigrant veterans, and relevant policies. Chapter 2 also contains key definitions for the study.

Chapter 3, The Literature Review, contains a review of the empirical literature relevant to the present study. There is a total of twenty-two (22) articles, and they are divided into six themes: immigrants and trauma, intergenerational trauma, and prior trauma before enlisting in the military, minority veterans and PTSD, treatment seeking behavior and barriers for veterans, treatment seeking barriers and behavior for immigrants and immigrant veterans, and treatment facilitators. The literature review critiques each study in analyzing their sample, type of study (e.g., quantitative), limitations, gaps, findings, and the researcher provides their own interpretation and how it relates to this study.

Chapter 4, The Theoretical Framework, presents Ecological Systems Theory, and its five systems, as the framework for understanding this study. The Ecological View of Psychological Trauma and Trauma Recovery was used as a framework in understanding the trauma competent of this study. Chapter 5, The Research Question, provided the research questions and hypotheses for this study. Chapter 6, The Methodology, describes the methods and procedures, study design, sampling and data collection methods, procedures, measurement scales, planned data analysis, and a variable chart. Chapter 7, Findings of the Study, consists of the findings of the

study. Chapter 8, Discussion, analyzes the data as well as provide recommendations for the social work field as well as future implications and research.

Chapter Two: Study Problem

Overview of the Problem

According to the DSM-5, there are nearly three hundred mental health disorders, which include PTSD (APA, 2013). The DSM-5 criteria for PTSD include, direct or indirect, witnessing, learning that the traumatic event occurred to a close family member, and experiencing repeated exposure to a traumatic event (APA, 2013). A traumatic event is defined as exposure to death, serious injury or sexual violence and this criterion applies to adults, adolescents, and children older than six years old (APA, 2013). Symptoms must be followed by the following four categories: 1) intrusion consists of nightmares, flashbacks, emotional distress and physical reactivity, 2) avoidance consists of trauma related thoughts or feelings and external reminders, 3) negative alterations in cognitions and mood include inability to recall key features of the trauma, decreased interest in activities, and feeling isolated, and 4) alterations in arousal and reactivity include irritability or aggression, hypervigilance, and difficulty concentrating (APA, 2013). The DSM-5 criteria also state that the symptoms must last for at least a month, cause considerable distress and/or interfere with life, and not be caused by another medical condition or by substance use (APA, 2013).

Untreated mental health disorders can have a debilitating effect on people, which include depression, substance abuse, and health problems (Iribarren et al., 2005). Mental health issues like PTSD are difficult to deal with emotionally and psychologically, which can lead to numbing of feelings through substance abuse (Kaysen et al., 2014). Mental health issues like depression are also a huge problem in that depression can affect one's eating and sleeping, how they think, and how they feel about themselves (Kaysen et al., 2014). Therefore, understanding barriers in treatment are so vital as untreated mental health disorders can yield more harmful, long-term

consequences. Mental health disorders like PTSD, if left untreated, can not only cause significant psychological and social issues, but it can also lead to physical conditions, including high blood pressure, Type-II diabetes, and chronic pain (Barbour, 2010).

History of PTSD

The history of PTSD dates to the Civil War, where soldiers who were coming back from war who had PTSD like symptoms were labeled as having "shell shock" (Barbour, 2010). "Shell shock" consisted of soldiers who would develop nervous conditions such as stuttering, body tremors, high irritability, and restlessness but suffered no physical wounds (Black, 1991). Due to this unexplained phenomenon following World War I, the demand for psychiatric social work greatly increased due to the prevalence of soldiers that came back with symptoms of "shell shock" (Black, 1991). Using a medical model, psychiatric social work came to dominate the profession (Black, 1991).

The first official diagnosis occurred in the DSM-I (in 1952) under the name Gross Street Reaction but was omitted in the DSM-II due to a long period of relative peace (Barbour, 2010). It was not until the DSM-III (in the 1980s), after pressure coming from Vietnam War veteran advocates, that PTSD became an official diagnosis, as an anxiety disorder (Barbour, 2010). According to Iribarren et al. (2005), the major causes for people being diagnosed with PTSD are "witnessing of traumatic or life-threatening events such as terrorist attack, violent crime and abuse, military combat, natural disasters, serious accidents or violent personal assaults" (p.503).

History of Immigrant Veterans in the US

Joining the military has long been a pathway to citizenship throughout US history, especially during times of conflict (Bredbrenner, 2012). Beginning with the Revolutionary War,

immigrant veterans were granted citizenship based on their wartime military service (Bredbrenner, 2012). In the Civil War, immigrant soldiers made up twenty-five percent of the military, and were given full citizenship rights upon their honorable discharge (Sullivan, 2019). Immigration restrictions were enacted between World War I and 1924, which subsequently led to the growth in population of unauthorized immigrants, which consisted mostly of undocumented immigrants of Mexican descent (Ngai, 1999). Racial dynamics have historically played a factor in the acceptance of immigrants and immigrant veterans in this country. During World War I, immigrants from Italy and Eastern Europe were granted citizenship through military service but during the Spanish-American War, Texans of Mexican descent were often terrorized by Anglo-Texans and Texas governor James Ferguson demanded that Mexican soldiers prove their loyalty to the state and nation (Sullivan, 2019). The US government has allowed unauthorized immigrants to serve during World War II, the Korean War, and the Vietnam War (Sullivan, 2019). In more recent history, as of 2008, there were more than 65,000 immigrants that served in the armed forces, and about half were naturalized due to their military service (Shrader, 2020).

Current Status of the Problem

According to Muller et. al. (2017), the rate for veterans is almost twice as likely to be diagnosed with a mental health disorder than the general population (12.9% to 6.8%). Veterans are also seeking treatment at a less than ideal rate. According to Barbour (2010), an estimated 14% of veterans who served in the Afghanistan and Iraq (OEF/IEF) conflicts have PTSD, but only about half (7%) are seeking mental health treatment. While barriers for seeking mental health treatment among veterans range from mental health stigma (Muller, 2017) to lack of access (Barbour, 2010) for veterans, little is known about first- and second-generation immigrant veterans and their rates of, and barriers in, seeking mental health treatment.

In the context of immigrants and mental health disorders, the rates could be higher than that of the general population. According to Aragona et al. (2012), who conducted a study of 391 participants about their post-migration living difficulties for refugees and asylum seekers in Italy, found that the prevalence of PTSD to be 10.2%, in comparison to the national average of 2.3% (Duckers, Alisic & Brewin, 2016). Second-generation immigrants are also not immune, as children of immigrants may be more vulnerable to acculturation stressors because of their developmental challenges associated with adolescence (Suarez-Orozco et al., 2021). While immigrants may have a higher susceptibility to developing mental health disorders, they may be seeking treatment at a lower rate than their counterparts. For instance, Asian American adults have a significantly lower rate of lifetime prevalence of any mental disorder (23.5%) than the general population (43.3%) (Lee et. al., 2021). With the likelihood that immigrants have a higher rate of having mental health illness, it is possible that this can influence first- and second-generation immigrant veterans. With the changing of the racial demographics of the US, this population is growing at a rapid rate.

As of 2017, approximately 44.4 million, or 13.6%, of the population are first-generation immigrants, and second-generation immigrants comprise about 12% of the population (Pew Research Center, 2019). This is a large increase from 1960, where approximately 11 million were immigrants and, current projections predict that by 2050, first-generation immigrants will account for 19%, and second-generation immigrants will account for 18% of the total population; totaling about 37% of the population at large (Pew Research Center, 2019). With the rise in first- and second-generation immigrants, the military has also followed suit. According to Zong & Batalova (2019), there are 530,000 (approximately 3%) veterans who were born outside the United States and almost 1.9 million veterans (~10%) are the U.S.-born children of immigrants.

In total, this group comprises approximately 13%, or 2.4 million, of all veterans. Despite their significant presence in our armed forces, this group of veterans is often overlooked. From 2013 to 2021, the VA funded over a hundred studies surrounding PTSD, none of which was research dedicated towards this subgroup of veterans. This subgroup of veterans has different experiences and stressors, both prior to joining the military (e.g., acculturative stress) and during military service (e.g., language proficiency issues), then their counterparts. This leads to the target population having a unique set of treatment seeking barriers and behavior.

Relevant Policies and Judicial Decisions for Immigrant Veterans

In 2002, the Bush administration issued an Executive Order authorizing all noncitizens who served on or after 9/11 to immediately file for citizenship and, as of February 2021, this Executive Order is still in effect ("Immigrant Veterans," 2021). In 2008, USCIS (United States Citizenship and Immigration Services) issued the Naturalization of Basic Training Initiative. This initiative allowed basic training graduates of all military branches to naturalize and request expedited processing of their application ("Immigrant Veterans," 2021). From 2008-2016, 10,000 noncitizens with critical medical, cyber and language skills were allowed to join the Armed Forces , and in response to national security threats, the DOD (Department of Defense) authorized US Code Title 10 to allow noncitizens with needed skills to join the Armed Forces ("Immigrant Veterans," 2021). However, in 2017 under the Trump administration, prolonged the process of naturalization for immigrant veterans (although this was overturned in September 2020), prevented new enlistees from naturalizing after basic training, and closed 13 of the 20 USCIS international field offices, which disproportionately affects noncitizen military members serving overseas ("Immigrant Veterans," 2021). As immigrant veterans start to lose their rights, this can impact their ability to seek and receive mental health treatment.

Individuals diagnosed with mental health disorders are protected under Title I of the Americans with Disabilities Act (ADA) in which the policy states that a job applicant, unless they require special accommodation, does need to disclose their diagnosis to an employer or potential employer (Hockox & Hall, 2018). In the case that an individual needs to disclose their diagnosis, the ADA requires an employer to make a reasonable accommodation, if it would not impose an "undue hardship" on the operation of the employer's business (Hockox & Hall, 2018). Accommodations for individuals with mental health disorders can take many forms, depending on the needs of the individual, which can include noise canceling headphones for those who struggle with concentration and special assistance for dealing with stress or emotional issues ("Post-Traumatic Stress Disorder and the ADA," 2022). Therefore, it is crucial that those who suffer from mental illness like PTSD get treatment and a diagnosis to help them better navigate through life with policies such as the ADA. For veterans with PTSD, the large majority seek treatment through the Veterans Healthcare Administration (VHA) (Barbour, 2010). The VA has an operating budget of $440 billion dollars for fiscal year (FY) 2021 and the VHA comprises of $243 billion of that budget ("Office of Research & Development," 2021). In 2013, the VA and the DOD announced that they were committing more than $100 million to fund research aimed at improving diagnosis and treatment of PTSD and mild traumatic brain injury ("Office of Research & Development," 2021).

Definitions

First-generation immigrant veteran: An individual who was born outside of the United States and served in the US military.

Second-generation immigrant veteran: An individual who has at least one parent (or caregiver) who immigrated to the United States from another country and served in the US military.

Target population: First- and second- generation immigrant veterans.

Generational American: An individual both of whose parents (or caregiver[s]) were born in the US and who themselves were born in the US. If raised by a single parent or caregiver, that parent or caregiver would meet the criteria of "both parents."

Treatment seeking behavior: The active pursuit of mental health treatment by an individual who has a disorder or who wishes to improve their general mental or physical functioning (APA, 2013). This also encompasses attitudes towards seeking mental health treatment, whether for themselves or others.

Veteran: one who served in the US Army, Navy, Marine Corps, Air Force, and Coast Guard, including their Reserve components and was who was discharged or released under conditions other than dishonorable ("38 CFR § 3.1-Definitions," 2022).

Conclusion

Veterans suffer from mental illness like PTSD at about twice the rate of civilians (Muller et al., 2017) yet only half are seeking treatment, which leads to poorer outcomes (Barbour, 2010). Immigrant veterans have been a large part of the Armed Forces since the country's founding, and that remains true today, as 13% of veterans are first- or second-generation immigrant veterans (Zong & Batalova, 2019). This study aims to contribute to the knowledge of treatment seeking behavior among first- and second-generation immigrant veterans to improve mental health outcomes for this population.

Chapter Three: Literature Review

Introduction

The literature review chapter will examine the experience of immigrants and veterans around the issues of trauma, mental health issues including PTSD, and factors that impact treatment seeking behavior. The Literature Review is divided into five themes, with a total of twenty-two articles. The themes are as follows: immigrants and trauma, intergenerational trauma, and prior trauma before enlisting in the military, minority veterans and PTSD, treatment seeking behavior and barriers for veterans, treatment seeking barriers and behavior for immigrants and immigrant veterans, and treatment facilitators for veterans and immigrants. The literature review analyzes each study, which consist of, the sample, type of study (e.g., quantitative), limitations, gaps, findings, and the researcher provides their own interpretation and how it relates to this study.

Methods

The findings portion of the literature review, the researcher conducted research primarily on YU Find and Google Scholar, while the rest of the content was found on VA.gov and ResearchGate. Inclusion criteria included peer-reviewed articles using key search terms, which included: “mental health disorders,” “mental health issues,” “immigrants,” “veterans,” “minority veteran,” “mental health treatment seeking barriers,” “pre- and post- migration trauma,” “trauma,” and “intergenerational trauma,” as well as combining the search terms (e.g., “mental illness immigrant veterans”). Exclusion criteria included non-peer reviewed literature and dissertations. Twenty-two articles were reviewed to adequately cover the themes of this literature review. The themes, along with the number of articles covered, are as follows:

Immigrants and trauma (four), Prior Trauma before enlisting in the military and intergenerational trauma (four), Minority Veterans and PTSD (five), Treatment Seeking Barriers and Behavior for veterans (three), and Treatment Seeking Barriers and Behavior for immigrants and immigrant veterans (four), and Facilitators in seeking Mental Health Treatment for Veterans and Immigrants (two).

Findings

Immigrants and Trauma

First- generation immigrants may be more susceptible to developing PTSD, even before they enter the US. Factors that develop pre-migration trauma are conflicts or wars from country of origin and individual or family stressors (e.g., abject poverty, lack of adequate healthcare) (Aragona et. al., 2012). Pre-migration trauma is not the only factor at play, as post-migration trauma (e.g., acculturation stressors, discrimination, language proficiency) also leave both first- and second-generation immigrants more vulnerable to PTSD (Sangalang et al., 2019). The following articles highlight how pre- and post-migration trauma can lead to mental health issues such as PTSD.

Research shows a connection between pre- and post-migration trauma. Li and Anderson (2015) conducted a study examining whether pre-migration trauma exposure is linked with psychological suffering through post-migration perceived discrimination, specifically for Asian American immigrants. This research was based on cross-sectional data analysis from the National Latino and Asian American Study, which comprised of a subsample of 1639 participants (originally 4649) of Asian immigrants. The measures used were psychological distress (measured with Kessler-10 scale), perceived discrimination (Everyday Discrimination

Scale (EDS), and pre-migration trauma exposure (Posttraumatic Stress Diagnostic Scale). One limitation of the study is based on the data being cross-sectional in nature, and it does not allow the study to truly determine the causal directions. The results show that pre-migration trauma exposure (e.g., political trauma) effects post-migration trauma (namely perceived discrimination) and mental health outcomes, namely in both the direct and indirect effects of pre-migration trauma exposure have on psychological distress in post-migration trauma. While this study just focused on the post-migration stressor of perceived discrimination, what is not known is how pre-migration trauma effects other post-migration traumatic exposures such as language proficiency or legal status stress. It would be appropriate to have a more in-depth understanding of what specific post-migration stress (e.g., language proficiency) yields which outcomes and symptoms.

Post-migration discrimination can exacerbate trauma. According to Brabeck et al., (2021), discrimination contributes to mental health disparities and activates the body's stress response system, which can cause mental health problem such as PTSD. In this study, discrimination encompasses interpersonal, involving harmful interactions and microaggressions from others (e.g., teachers, peers), as well as structural (policies and practices that affect marginalized community). Within the Latinx community, factors that increase discrimination are race, nationality, English proficiency, and immigration status. Brabeck et al., (2021) conducted a study analyzing the relation between perceived discrimination and PTSD symptoms among Latinx immigrant youth. This study used a quantitative method, which consisted of high school students in eleven different high schools. The two sites were selected based on differing levels of immigrant enforcement climates. The measures were PTSD symptoms (17-item Child PTSD Symptom Scale), perceived discrimination (15 questions using the Adolescent

Discrimination Distress Index), and Trauma Exposure, Resilience, and Demographic Characteristics (20 questions from a modified version of the Life Events Checklist and a 6-item family level-resilience). One limitation of this study is that it only captured two counties (Harris County, Texas, and Rhode Island), which may not represent adolescents in other regions of the US. The sample consisted of 306 Latinx youth, average age was 16, 53% were born outside of the US, and 47% were children of immigrants, or second-generation immigrants. The study found that youth who perceived more discrimination were more likely to report PTSD symptoms, which include higher levels of avoidance and reexperiencing symptoms. What is not known are the differences between first- and second-generation immigrants in how they perceive and experience discrimination and PTSD symptoms.

Post-migration trauma can also lead to other mental health issues. Sangalang et al., (2019) conducted an analysis based on data from the National Latino and Asian American Study, which was a study that examined refugees and immigrants from Asian and Latino descent in the context of impact of traumatic experiences in both pre- and post-migration to the US. This analysis used a subsample of 3268 (originally 4649), of which 1639 (originally 2554) were Latino, and 1629 (originally 2095) were Asian who were born outside of the US. The participants had at least one diagnosis of a depressive disorder or persistent depressive disorder in the last year. A limitation of the survey was due to the research instrument relying on participants' retrospective accounts of their trauma experience, it can lead to participants not sharing repressed or forgotten experiences as well choosing not to disclose this information, due to the sensitive nature of trauma. The study found that first-generation immigrants with post-migration trauma, such as acculturative stress, can lead to increased risk of mental illness (with refugees being twice as likely as first-generation immigrants). What is not known is how

acculturative stress effects first- and second-generation immigrants differently. Second-generation immigrants experience a different kind of acculturative stress of navigating between two cultures- one at home and one in society at large.

Immigrant groups have different rates of PTSD. Davison et al., (2020) analyzed data from the Canadian Longitudinal Study on Aging, which is comprised of in-home interviews with 30,097 participants. For measures, the independent variable was PTSD (measured by four-item Primary Care Post-Traumatic Stress Disorder tool), the four independent variables were Canadian born white, Canadian-born visible minority member, immigrant white, and immigrant visible minority member, and the covariates of demographic, social, economic, health, and nutrition-related variables that could potentially reduce the relationship between PTSD and immigration status were also examined. One limitation of the study was that a large majority of the participants were college educated (77.7%), which limits the generalizability of the findings in respect to age and age groups. This study tried to address the knowledge gaps about PTSD in middle-age and older adults, with particular attention to the relationship of PTSD with nutrition and with ethnicity and immigrant status. This study found that immigrants from "visible" minority groups (not "white" or Caucasian) have a significantly higher prevalence of PTSD than their Canadian born counterparts, while white immigrants (e.g., Italian) had the lowest odds of PTSD amongst the three groups. Davison et al. (2020) state that, "this association was robust across various analyses that accounted for various demographic, social, economic, health status, health behaviors, nutrition status, and dietary intake indicators" (p. 976). One gap in the literature is understanding the reasons why white immigrants had the lowest rate of PTSD. More could be understood about the PTSD rates and outcomes in white immigrants to that of generational Canadian minority groups.

Trauma also impacts the children of immigrants. Anakwenze and Rasmussen (2021) conducted a quantitative study of ninety-one parents of children between the ages of 5 and 12 years, all of whom were immigrants from West Africa and currently living in New York City. The measures that were used consisted of potentially traumatic events, parents' posttraumatic stress symptoms, children's externalizing behavior, and parent-child separation. None of the interviewers could read Fulani due to lack of formal education, thus the measures and scales had to be translated and read to the participants in verbal form. The aim of this study was to assess whether there was a correlation between parenting difficulty, due to parental traumatic stress symptoms (e.g., PTSD from migration, family separation, etc.), and child behavior problems in immigrant families. A limitation of the study was that it only focused on West African immigrants in NYC, and not on other immigrant groups or in other parts of the country (e.g., suburban, or rural areas). The study found that children of immigrants recovering from trauma are at risk of exhibiting externalizing behavioral symptoms (e.g., physical aggression, impulsive behavior, etc.). What is not known are how cultural clashes (e.g., child not obeying cultural values set forth by the parents and instead want to follow more 'American' values) affect second-generation immigrant children in behavior problems or acculturation difficulties.

The interpretation of the data for the above studies are as follows. First-generation immigrants who experience discrimination are much more vulnerable to developing PTSD. As the data for Li and Anderson (2015) and indicates, perceived discrimination may have a significant impact in the development of PTSD on first-generation immigrants who have pre-migration trauma exposure and Brabeck et al., (2021) data shows that discrimination can increase the likelihood of developing PTSD. Acculturative factors, as the data for Sangalang et al., (2019) suggest, combined with post-migration trauma, can lead to increased risk of mental

illness. This data indicates that acculturative stress encountered by first- and second-generation immigrants, may exacerbate their PTSD symptoms. Social support along with race and culture play a vital role in PTSD outcomes and treatment seeking behavior (Davison et. al., 2020). As Davison et al. (2020) data suggest, white immigrants have the best PTSD outcomes due to the benefit of having a robust social support network (more so than their generational American counterparts), without experiencing the same level of discrimination and acculturation challenges, of other minority immigrant groups. First-generation immigrants experiencing high levels of stress and mental illness not only affect them but can have implications for their offspring. As the data for Anakwenze and Rasmussen (2021) suggests, second-generation immigrant children, especially from families with traumatic stress symptoms, are at a higher risk of developing behavioral issues. This data can apply to first- and second-generation immigrant veterans, as the data indicates that immigrants have a higher rate of traumatic exposure even before arriving to the US, and stress factors such as assimilating may exacerbate their mental illness.

Prior Trauma before enlisting in the military and intergenerational trauma

Second-generation immigrants are more susceptible to PTSD, even if they never had pre-migration stress. Suarez-Orozco et al., (2021) suggest that second-generation immigrants may be more susceptible to acculturative stressors than their parents because of developmental challenges associated with adolescence or increased exposure to various settings (e.g., school) compared to their parents. With first- and second-generation immigrants being more vulnerable to PTSD before military service, this can impact their mental health during and after military service. The following studies examine the impacts of children whose parent are diagnosed with PTSD from military service and the impact of having trauma exposure prior to joining the

military. It should be noted that none of the studies below examined first- or second-generation immigrant veterans.

Combat trauma can lead to a variety of challenges for veterans. Jordan et. al. (1992) conducted a study where they interviewed a total of 3,106 participants, 1,200 of which were male Vietnam war veterans and the spouses or domestic partners of 376 of these veterans. There were fourteen measures that were used, including marital problems index, parental problems index, family adjustment index, level of life functioning index, family violence measures, and index of subjective well-being. One limitation of the study was that it did not focus on veterans from other conflicts (thus the study being from 1992) or veterans who did not see combat. The aim of the study was to determine the presence of PTSD and issues surrounding family and marital adjustment, parenting problems, and violence. The spouse or partner were interviewed surrounding these same issues, as well as their view of their own mental health, drug, and alcohol problems and behavioral problems of school-aged children living at home. The study found that the presence of PTSD in combat veterans, especially Vietnam War veterans, showed markedly elevated levels of severe issues with marital and family adjustment, parenting skills, and violent behavior, in comparison to veterans without PTSD and civilians. This study leaves a gap of understanding in the children of these parents with PTSD. It would be beneficial to have data on the children's interpretation of their behavior and to follow up with them into adulthood and see if they are more likely to develop PTSD symptoms.

Research shows veterans' trauma also impacts their children's well-being. Parsons et al., (1990) conducted a study comparing combat Vietnam War era veterans with PTSD to non-combat Vietnam War era veterans without PTSD on their perceptions of their children's social and emotional functioning. This study consisted of 107 veterans, who are fathers to 191

children. Of these children, 143 (75%) were children of Vietnam veterans who met the criteria for PTSD, while the remaining 48 children had fathers who did not meet the criteria for PTSD. It should be noted that the participants were only from the Northeast (New England and New York) and US territories (Puerto Rico and US Virgin Islands) and did not represent the population of Vietnam Veterans at large. The participants (the 107 fathers) completed a parent's behavior checklist on their 191 children. The results show that fathers with PTSD, perceived their children as exhibiting a substantially greater level of dysfunctional social and emotional behavior, as well as difficulty in establishing and maintaining relationships, in comparison to their counterparts (veteran fathers without PTSD). This study could benefit by adding data from non-veteran parents with and without PTSD, to show the differences with and without military service, in children's social and emotional functioning.

Researchers have also looked at pre-military trauma on veteran life outcomes. Hollis et al., (2017) conducted a study about whether pre-military traumatic experiences impacted mental health symptoms, which contributed to hazardous alcohol use. The study consisted of 506 (323 men and 183 women) military service members and veterans who filled out online surveys assessing their pre-military abuse, mental health symptoms, and combat exposure and hazardous drinking. The measures that were used consist of the following: sexual and physical abuse prior to military service, mental health symptoms, combat exposure, and hazardous drinking. One of the limitations of the study is memory bias, as participants retrospectively reported on their abuse and mental health prior to joining the military. The study found that pre-military traumatic experiences correlate with hazardous drinking; however, pre-military mental health symptoms did not significantly mediate the relationship between pre-military traumatic experiences and hazardous drinking. More can be known about whether traumatic experiences during military

service will impact first- and second-generation immigrants and generational Americans differently, given both populations reported prior trauma before military service.

A veteran's experiences prior to joining the military influence their mental health outcomes. Brownlow et al., (2018) conducted a study to examine the association of both traumatic stresses encountered during deployment, and traumatic stress over one's lifetime on probable PTSD diagnosis. Brownlow et al., (2018) analyzed data from the Army Study to Assess Risk and Resilience in Servicemembers (Army STARRS), which is an epidemiologic study that collected data from various sources (e.g., surveys, cognitive tests, and biomarkers) to examine predictors of poor mental health, suicidality, and resilience in Army personnel. For this study, Brownlow et al., (2018) analyzed two sub-studies: one which is comprised of 21,499 active-duty soldiers and the other of 55,814 recently recruited soldiers prior to completing boot camp. The participants completed a survey regarding their health and experiences inside and outside of the military. The measures consisted of the following: lifetime stress (for active-duty soldiers, this consisted of stress that were encountered outside of the military; for new soldiers, this consisted of stress encountered prior to joining the military), deployment-related stress, and probable PTSD diagnosis. One limitation of this study is that it did not examine specific traumatic stress events on predicting PTSD diagnosis. This study found that "traumatic stress over one's lifetime is a predictor of probable PTSD for veterans, as much as traumatic stress encountered during war" (Brownlow et. al., 2018, p.2). More could be known about what kinds of stress in the military (e.g., acclimating to military culture, leaving hometown and family, war, etc.) exuberates the susceptibility of developing, or re-triggering, PTSD amongst first- and second- generation immigrant veterans.

The interpretation of the data for the above studies are as follows. Parents with PTSD have a negative impact in raising children. As the data for Jordan et al. (1992) indicate, parents who have PTSD are more susceptible to having issues raising families. This can affect second-generation immigrants as these issues in raising families can lead to intergenerational trauma for children living in these households. As the data for Parsons et al. (1990) suggest, a parent with PTSD can affect their children's social and emotional functioning, which can lead these children to developing various issues. This impacts second-generation immigrant veterans, in that trauma exposure prior to joining the military can have adverse effects both during and after military service. As the data for Hollis et al. (2017) suggest, pre-military trauma may result in a loss of resources and adaptive coping mechanisms, which can lead to negative mental health consequences and problematic ways of coping. This data impacts first- and second-generation immigrants due to having a higher probability of entering military service with some type of trauma exposure, thus leading this population to developing negative coping strategies both during and after military service. As the data for Brownlow et al. (2018) suggests, traumatic stress prior to military service (e.g., acculturation, trauma from migrating, conflicts in country of origin, intergenerational trauma, etc.) can leave first- and second-generation immigrants at a higher risk of PTSD before and after military service. First- and second- generation immigrant veterans are more susceptible to stressors such as migration and acculturation, than their generational American counterparts. However, other factors such as discrimination and xenophobia are also stressors that first- and second-generation immigrants deal with that are like that of minority veterans, regardless of how many generations they have been in America.

Minority veterans and PTSD

Throughout America's history, minority service members have had to struggle for equality. During World War I, immigrants from Italy and Eastern Europe were able to claim citizenship and obtain social acceptance through military service while generational African American soldiers were segregated and faced various forms of discrimination (Ngai, 1999). The following studies highlight the potential differences between minority groups and generational white Americans in symptomatology, treatment seeking behavior, mental health outcomes, use of social support, resilience, and overall experience while in the military. These differences include mental health stigma, use of social support, experience while in service, and the target population having a higher susceptibility of PTSD. It should be mentioned that none of these studies included immigrant veterans or had immigrant status as part of their participant demographics. The correlation between minority veterans and immigrant veterans are in their experience of discrimination and xenophobia.

Treatment outcomes for PTSD vary by race. Spoont et al., (2021) conducted a secondary analysis of veterans who were diagnosed with PTSD, evaluating variations in clinical outcomes for veterans of various racial and ethnic groups. Surveys were filled out immediately following the initial diagnosis and again 6 months later. One limitation of the study was the lack of data on subgroup comparisons (e.g., for Latinx, Mexican vs. Panamanian, etc.). The study consisted of 4,338 participants and found that Latinx and African American veterans were less likely than Non-Latinx Whites to show significant improvement in PTSD symptoms. In other mental health outcome measures, in this case Mental Health quality of life scores, African American veterans scored relatively higher than Non-Latinx Whites and Asian/Hawaiian/Pacific Islander veterans. A gap in literature exists in understanding why certain minority groups scored higher in mental health outcome measures (e.g., African American) but showed little improvement in PTSD

symptoms in comparison to their counterparts. This data shows that minority veterans have worse outcomes for treatment of PTSD symptoms than their white counterparts, even though they may score higher in other mental health measurements.

Minority veterans are treated differently than their white counterparts, which can lead to race-related stressors. Loo et al., (2007) conducted a case study of two Asian American, Vietnam War veterans, examining race-related stressors that placed minority veterans under greater risk of both death and reduced cohesion with their fellow service members. The limitations of the methodology are the small sample size of two participants. The study found that two types of race-related stressors were: bicultural identification and conflict is defined as identifying with Vietnamese people or culture, which goes against the military's conditioning of dehumanizing the enemy. Racial stigmatization is the exclusion by fellow military service members based on race or ethnicity. The results indicate that minority veterans have different experiences and are treated differently than their white counterparts, which can lead to being an outsider and complicated feelings involving combat.

Race-related stress can increase the severity of PTSD. Tsai and Kong (2012) conducted a literature review of thirteen studies on veterans and PTSD, four of which focused primarily on AAPI (Asian American and Pacific Islanders) veterans. Amongst the thirteen studies, nine articles presented empirical data while the other four presented case studies and conceptual frameworks. The empirical studies' design and topic were categorized as an analysis of national surveys and an examination of PTSD among AAPI Vietnam veterans. One limitation of the methodology was that most of the data analyzed were around veterans who served in the Vietnam War, not getting an accurate representation of other veterans in other conflicts. The aim of this review was to examine the mental health outcomes of AAPI veterans. The finding shows

that AAPI Vietnam veterans endured racism from fellow soldiers and these race-related stressors led to more severe PTSD symptoms. The findings also show that AAPI veterans were physically healthier but reported greater mental health issues and were less likely to use mental health services than their counterparts. More could be known about the reasons why AAPI veterans are seeking mental health services at a lesser rate than their counterparts.

In addition to stress, race/ethnicity has also been studied in terms of its relationship to resilience among veterans. Herbert et al., (2017) conducted a study to examine the relationship between race/ethnicity and psychological resilience, and the role that social support plays in this relationship. This study was part of a larger cross-sectional evaluation of OEF/IEF veterans registering at VA San Diego Healthcare System. The measures that were used were psychological resilience (10-item Connor-Davidson resilience scale) and social support (measured with a single item: "Who gives you emotional support or advice?"). One limitation of the methodology is that the participants were all enrolled in the VA health care system and does not include OEF/IEF veterans who are not enrolled in the VA health care system. Another limitation is the lack of depth in the social support portion (just one question) of the measurement. The participant racial demographics were non-Hispanic White (n = 605), Hispanic (n = 107), African American (n = 141), and Asian American (n = 97) combat veterans who served during Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF). Social support is defined by anyone (e.g., spouse, family, religious advisor, etc.) that gives emotional support or advice. This study found that the relationship between psychological resilience and social support was positively associated with resilience among non-Hispanic White veterans, but not among other racial/ethnic groups. This study also found that Asian American veterans report lower psychological resilience than non-Hispanic White veterans, while finding no other

racial/ethnic differences in psychological resilience. The study lacked data on subgroups within a race/ethnic group (e.g., Chinese vs. Filipino) and could did not measure cultural differences and constructs surrounding issues like individualism/collectivism or acculturation. The results show that cultural differences in individuals from specific racial/ethnic groups in how and why they use social support may contribute to the relationship between social support and psychological resilience.

Risk and resilience factors associated with PTSD are different amongst various racial/ethnic groups. Whealin et al., (2015) examined the risk and resilience factors associated with PTSS (posttraumatic stress symptomatology) for National Guard members of various minority (Native Hawaiian, Japanese Americans, etc.) groups and European (White) Americans. The study consisted of 288 participants, who were part of the Hawaiian National Guard, the survey consisted of various PTSD and resilience scales and checklists. The assessments that were used consisted of the following: PTSD checklist-civilian version, the deployment risk and resilience inventory social support scale, and the Connor-Davidson Resilience Scale-10. One limitation of this study was that the data did not include demographic categories such as gender, age, SES, or sexual orientation and did not access the participants' exposure to combat events. This study found that risk and resilience factors associated with PTSD are higher in the subgroup of minority veterans (Filipino, Japanese, and Native Hawaiian) than their white counterparts. A gap in the literature would be to further understand how risk and resilience factors affect treatment seeking behavior for PTSD.

The interpretation of the data for the above studies are as follows. As the data from Spoont et al., (2021) suggest, PTSD treatment for veterans is geared towards Non-Latinx Whites, and may not be as effective for minority groups, which include the first- and second-generation

immigrant veterans. This may play a role as to why this population is not seeking treatment, due to believing that the treatment is not suited, and will ultimately be ineffective, for them. Apprehension towards seeking treatment for minority veterans may also be rooted in xenophobia. As the data for Loo et al., (2007) indicate, the feeling of being an outsider may contribute to first- and second-generation immigrants' distrust of American institutions, which lead to not seeking treatment for mental health services and relying more heavily on an insular social support system. Reliance on an insular social support system may be rooted in the target population's experience during military service. Tsai and Kong (2012) data indicate that factors such as experiencing racism and discrimination during military service erodes the faith and trust of American institutions (e.g., mental health services) for first- and second-generation immigrant veterans, which may be a contributing factor as to why they are seeking treatment at a lesser rate than their counterparts. Social support systems vary widely between groups. As the data for Herbert et al., (2017) indicate, cultural differences may play a key role in the use of a social support system and how immigrant veterans choose whether to seek mental health treatment. First- and second-generation immigrants may have different interpretations, and use of, resilience and social support than their counterparts. As the data from Whealin et al., (2015) suggests, minority veterans have different interpretations of risk and resilience than their white counterparts and may play a role in their treatment seeking behavior. While there are differences between various subgroups of veterans, veterans at large are still resistant towards mental health treatment.

Treatment Seeking Barriers and Behavior for veterans

Veterans are in dire need of mental health services however, there are many barriers that inhibit veterans from seeking treatment. The following studies analyze data from veterans and

found that factors such as mental health stigma may be a barrier in treatment seeking behavior, although there is not a consensus in the data, and that social support networks are a key factor in the encouragement for seeking mental health treatment. What is not known is if these barriers are different, or similar, for first- and second-generation immigrant veterans.

Veterans possess barriers in seeking mental health treatment. Williston et. al., (2019) conducted a quantitative study examining the correlation between military cultural values (self-reliance and emotional control) and dimensions of anticipated stigma and negative beliefs about mental health. The study used a cross-sectional survey which consisted of 134 participants, all of whom were post 9/11 veterans. Participants were recruited via social media, research email blasts and snowball sampling. There were six total surveys which centered around measuring two themes: negative beliefs about seeking mental health care treatment and anticipated stigma. One limitation of the was that the sample was predominately white (73.4%), and immigrants were not included in the demographics. The study found that both concerns about mental health stigma and negative mental health beliefs are barriers to seeking treatment. With mental health stigma, participants listed worries about career implications and there was a belief that symptoms had to be 'really bad' to seek treatment (which most did not feel they were in this category). The results show that the most highly endorsed items are 'I try to be in control of everything in life' (73.2%) and 'I don't discuss my feelings with others' (62%). A gap in the literature would be to further understand if serving in the military affected treatment seeking behavior or if these notions surrounding mental health stigma existed prior to joining the military.

Mental health stigma plays a role in treatment seeking behavior for veterans. Johnson and Possemato (2021) conducted a quantitative study assessing the barriers and facilitators for veterans with common mental health concerns. The total number of participants were 116

veterans, who were enrolled in primary care and had current symptoms of mental health issues (e.g., PTSD, depression). The surveys that were used are as follows: PTSD symptoms (PCL-5), depression (PHQ-9), and hazardous alcohol use (AUDIT). The reason for choosing these surveys is that it displays strong psychometric detection of PTSD, depression, and hazardous alcohol use, respectively. One limitation of the study was that only 7 (13%) participants were people of color, and immigrant status was not included in the demographics. The study found that mental health stigma and lack of knowledge surrounding mental health were the biggest barriers for veterans seeking mental health treatment. A gap in the literature consists of understanding the correlation between mental health stigma and the lack of knowledge surrounding mental health. If mental health is stigmatized for a group or individual, they will not take the time or effort to learn about mental health and mental health treatment.

There are several factors that influence treatment seeking behavior for veterans. Spoont et al., (2014) conducted a prospective, national cohort study among veterans who were recently diagnosed with PTSD. The aim of the study was to understand social and attitudinal factors influencing treatment seeking behavior, which may help influence outreach programs in the future veterans with PTSD. The study consisted of 7,645 participants, from a national sample, who filled out surveys regarding their beliefs surrounding mental health treatment and social network encouragement in seeking mental health services. Participants consisted of VA service users who were recently diagnosed as having PTSD by a VA clinician. Surveys were used to access severity of PTSD, quality of life related to mental health, anticipated access barriers, treatment-related beliefs, and social encouragement to seek mental health treatment. One limitation of the study was that it included demographic variables such gender, age, race, ethnicity, and service-connected disability but did not include immigrant status. The study found

that belief in the severity of their PTSD, or other emotional issues, and encouragement from their family and friends, as main factors for seeking treatment for PTSD. The study also found that mental health stigma was not a barrier to seeking treatment. This data also found that mental health stigma as a barrier is not conclusive in terms of treatment seeking behavior for veterans. A gap in the literature includes understanding which sources of social support (e.g., fellow veterans) encourage getting mental health treatment and which sources does not (e.g., immigrant families).

The interpretation of the data for the above studies are as follows. Veterans have treatment seeking barriers partly due to their experience during their military service, while the target population may experience enhanced barriers. As Williston et al.'s, (2019) data suggests, military cultural values have a large impact on veteran treatment seeking behavior, while first- and second-generation immigrant veterans may have different, or added, components to their treatment seeking behavior. As Johnson and Possemato (2021) data suggest, mental health stigma, which include perceived norms, is a main barrier for treatment seeking for veterans. For first- and second-generation immigrant veterans, due to enhanced cultural barriers (e.g., perceived cultural norms surrounding mental health and lack of mental health awareness in the country of origin in comparison to the US), lead to higher stigmatization surrounding seeking mental health treatment than their counterparts. While military culture and mental health stigma are barriers, there are factors that encourage seeking mental health treatment for veterans. As the data for Spoont et. al., (2014) indicates, a veteran's social network is paramount to seeking treatment for mental health. In terms of first- and second-generation immigrant veterans, due to immigrant families being less open to seeking mental health treatment, may not have the same social network encouragement as their counterparts.

Treatment Seeking Barriers and Behavior for immigrants and immigrant veterans

Immigrant groups have a high variance in mental health outcomes and, in comparison to their counterparts, have a unique set of barriers for seeking mental health treatment. First- and second-generation immigrant veterans are a diverse group and possess differing treatment seeking behavior amongst itself. The following studies found that amongst immigrant groups, factors such as lack of mental health knowledge, knowing who and where to seek treatment, language proficiency, and finding a culturally competent therapist are main barriers for seeking mental health treatment. For immigrant veterans, there is evidence that first-generation immigrants have distinct disability reporting behavior than second-generation immigrants.

First-generation immigrant parents have multiple reasons for not seeking mental health treatment. Vasquez et. al. (2020) conducted a quantitative study evaluating the barriers for seeking mental health treatment for Latinx caregivers. The sample included 598 Latinx caregivers of youths ages 6 to 18 years old from across the US. The criteria for the participants consisted of being Latina/o/x, a caregiver to at least one youth between the ages 6–18, able to complete the survey in English, and were living in the United States. One limitation is the survey only being in English, which eliminates a large portion of immigrant Latinx caregivers. Another limitation is that in using cross-sectional data, it cannot establish a causal relationship between treatment barriers and service utilization outcomes. The study found that three main barriers for seeking mental health treatment for Latinx caregivers were a) felt that they were the ones who should address their child's mental health issues, b) not knowing who to see or where to go for treatment, and c) not having adequate knowledge of mental health issues (e.g., feeling that their child's problem was 'normal,' and did not need services). What is unknown is whether this target population (Latinx caregivers) has different treatment seeking barriers than their

counterparts (e.g., white, or other ethnicity, caregivers) and, within the Latinx community, whether there are differences in first- or second- generation caregivers.

Asian Americans have the lowest rates of seeking treatment for mental health, even amongst those diagnosed with mental illness (Lee et. al., 2021). Lee et al., (2021) conducted a quantitative study examining what barriers to mental health treatment were associated with Asian Americans. There were 126 participants, all of whom were diagnosed with a mental illness, of which 93 (78.2%) immigrated to the US after age 10, and 78 (62%) has been in the US for 20 years or more. All surveys were translated to native language of the participant (Korean, Chinese, and Vietnamese) and surveys were used to measure immigration-related variables (e.g., country of origin, years living in the US, etc.), perceived psychiatric problems and needs, treatment receipt, and barriers to treatment receipt. One limitation of the study is that it only focused on Chinese, Vietnamese, and Korean Americans in one metropolitan area (the Greater Philadelphia Region). Asian Americans are a diverse group and have a high variance in language proficiency, cultural norms, and values. This study reported that the main barrier for seeking mental health treatment was the lack of language proficiency and finding a culturally appropriate therapist. Language proficiency seems to be a particularly puzzling barrier, as 95 (77%) participants reported having little to no English proficiency but 78 (62%) have been in the US for 20 years or more. What is not known is understanding what qualities constitutes a culturally competent therapist (e.g., being bilingual, being from the region in the country of origin, or being a different race but understanding the culture, etc.) and how that would affect treatment seeking behavior for this target population.

Disability reporting behavior is also different amongst the target population and its counterparts. Adler and Page (2019) conducted a preliminary study regarding the health-related

assessment of US immigrant veterans, analyzing data from the US Census from 2011-15, comparing disability reporting among foreign-born veterans, native-born veterans, foreign-born non-veterans, and native-born non-veterans. The aim was to assess levels of disability reporting among foreign-born veterans in comparison to other populations. The sample contained 4,551,628 individuals, with 72.5% being native-born non-veterans, 18.3% foreign-born non-veterans, 8.9% native-born veterans and 0.4% were foreign born veterans. The Oaxaca-Blinder method was used to determine whether significant differences exist between native and foreign-born veterans in disability reporting. One limitation of the study was that the analysis was too restricted and only focused on reporting of disability, and not on other health status measurements. The results show that middle-aged foreign-born veterans were less likely to report a disability than native-born veterans and native-born non-veterans, but more likely to report than fellow non-veteran immigrants. One gap in literature is understanding the reasons why foreign-born veterans are more likely to report a disability than foreign-born non-veterans.

The interpretation of the data for the above studies are as follows. As the data from Vasquez et al., (2020) indicates, immigrants may have different barriers for seeking mental health treatment than generational Americans. Some of these barriers are unique from generational Americans. As the data from Lee et al., (2021) indicates, a treatment seeking barrier such as language proficiency are not experienced by generational Americans and vary widely by immigrant groups (e.g., a Chinese immigrant having less language proficiency than a Filipino immigrant). This difference between immigrants and generational Americans can also be found in veterans. As the data from Adler and Page (2019) indicate, foreign-born veterans are distinct from both other veterans as well other immigrants in respect to their levels of reporting disability. This could be due to foreign-born veterans becoming more acculturated through their

military experience. The implications for this study are that first-generation immigrant veterans could be distinct from second-generation immigrants and generational Americans in their treatment seeking behavior.

Facilitators in seeking mental health treatment for veterans and immigrants

The following studies highlight treatment facilitators for veterans and immigrants, which is just as crucial in understanding treatment seeking barriers. These studies find that privacy in seeking treatment and family behavior are key factors in treatment facilitators. While these studies focus on immigrants and veterans, the researcher was unable to find treatment facilitators for first- and second-generation immigrant veterans.

Families play a pivotal role in treatment seeking behavior amongst immigrants. Sharma et al., (2022) conducted a qualitative study to gain an understanding of the facilitators and barriers of Asian Indian Americans when accessing mental health services, while focusing on potential family and cultural factors involved. A multiple case approach was used to gain an in-depth understanding and to identify common themes. The sample consisted of four first-generation, and three second-generation, totaling seven Asian Indian Americans. Limitations to this study include only having Asian Indian Americans, and no other immigrant groups and all participants were self-selected. This can result in participants being more likely to have highly positive or negative experiences. The results show that first- and second- generation immigrant Asian Indian American have seven main themes that facilitate mental health treatment: privacy in services, a positive therapy experience, increased psychoeducation, accessibility, motivation for self-improvement, normalizing of mental health treatment, and support system. The results also showed that privacy in services (defined as seeking mental health treatment without parents, family, friends, and/or community members finding out) in particular, played a crucial role in

seeking mental health treatment. One gap in the literature is understanding the correlation between privacy in services and the other six main themes.

Families also play a crucial role in a veteran's mental health outcomes. Thompson-Hollands et al., (2022) conducted a qualitative study to gain a better understanding of VHA (Veterans Health Administration) clinician's perspective on the impact of family involvement in PTSD treatment. The researchers spoke with thirty-one clinicians from ten VHA facilitates nationwide, using the i-PARIHS framework to guide the interviews and analysis. One limitation to this study is that it does not include interviews with veterans and family members, only garnering the perspective of the clinician. The results show that a veterans' family behavior or attitude have an impact on a veteran's day to day functioning and a veteran's PTSD symptoms can have a tremendous disruption within their family unit. A gap in the literature is understanding how to remedy this family unit disruption and the impact of family involvement in veterans who are seeking mental health treatment.

The interpretation of the data for the above studies are as follows. As the data from Sharma et al., (2022) indicates, privacy in seeking mental health treatment is a facilitator for immigrants. Ensuring privacy in seeking mental health treatment could be an important issue for the target population. As the data from Thompson-Hollands et al., (2022) indicate, a family's attitude toward mental health treatment could be a facilitator for veterans seeking mental health treatment. Focusing on the family's attitude toward mental health treatment could be a vital competent for first- and second-generation immigrant veterans.

Conclusion

The literature has established that first-generation immigrant are more susceptible to PTSD and mental health issues due to pre- and post-migration trauma. First-generation

immigrant parents with PTSD also have a more difficult time raising children, which can lead to various issues for second-generation immigrants, including intergenerational trauma. Lev-Wiesel (2007) states that the impact of trauma is not only felt during one's lifetime but can have impact on the next generation in terms of behavior patterns, symptoms, and values. Trauma exposure for veterans prior to joining the military can lead to worst outcomes both during and after military service (Hollis et al., 2017). Minority and first- and second-generation immigrant veterans, due to issues such as discrimination and xenophobia, have poor mental health and treatment outcomes. The barriers for seeking mental health treatment for veterans include mental health stigma and lack of mental health knowledge while encouragement to seek help from their social support network is a key competent to seeking mental health treatment. Some of the barriers for seeking mental health treatment for first- and second- generation immigrants are different and include issues such as language proficiency and not having access to a culturally competent therapist.

As the literature review suggests, there are potential differences between the target population and generational Americans in treatment seeking behavior and barriers. Pre- and post-migration trauma affect first- and second-generation immigrant veterans prior to their military service, causing them to have a higher propensity to developing PTSD both during and after military service. Yet, little is known about the treatment seeking behavior of first- and second- generation immigrant veterans, especially giving the heightened vulnerability this population has with PTSD. Studies have shown that immigrant and minority veterans are physically healthier, but suffer from higher rates of mental illness, yet seek treatment at a lower rate than their counterparts (Tsai & Kong, 2012). There is scant research and data regarding the

specific barriers and facilitators for mental health treatment for first- and second-generation immigrant veterans.

This project aims to shed light on the target population in their mental health treatment seeking behavior. The goal of this research is to contribute to the understanding of treatment seeking behavior for, and understanding of, PTSD in first- and second-generation immigrant veterans in the United States. This knowledge is needed to create curated outreach programs for the target population to seek PTSD treatment services and provide treatment modules aimed specifically at the target population.

Chapter Four: Theoretical Framework

This section will cover two comprehensive theoretical frameworks that inform the study and methodology. Ecological systems theory and ecological view of psychological trauma and trauma recovery provide context to the target population's unique experiences. The two frameworks are rooted in social work research and create a foundation in understanding the target population's treatment seeking behavior.

Ecological Systems Theory

The concept of systems theory gained prominence with von Bertalanffy (Bertalanffy, 1950). Von Bertalanffy thought that a system has holistic properties that do not exist separately within the parts and believed that general systems theory that interacting elements may together form an entity (Bertalanffy, 1950). While the beginnings of systems theory applied to scientific discoveries, a systems approach, led by cultural anthropologist Gregory Bateson, was used to understand human relationships (Turner, 2017). This approach aimed to see problems in context, while looking at how interactions create and maintain problems, as well as analyzing patterns that can remain constant or change (Smith-Acuna, 2011). Hearn (1958, 1969) applied systems theory to social work and Goldsterin (1973), Pincus and Minahan (1973), Siporin (1975), and Germain (1979) published interpretations of applying systems theory to practice that had considerable influence, both domestically and abroad (Payne, 2014). Systems theory was a reaction against psychodynamic theory in the 1970s, as its sociological focus runs counter to the individual focus of psychodynamic theory (Payne, 2014). In 1979, a developmental psychologist named Uri Bronfenbrenner, created a socio-ecological model known as ecological systems theory (Bronfenbrenner, 1979).

The Ecological Systems Theory (EST) was created to understand how family's function within a complex system and how interrelated components can impact each other while understanding the characteristics of the individuals (Bronfenbrenner, 1979). Within the family, the biopsychosocial characteristics play a pivotal role in how a family's ability to function properly (Bronfenbrenner & Morris, 2006). In practice, EST aims to integrate interpersonal interventions that involve engaging with families, communities, and other social agencies; an emphasis is placed on how social and personal factors interact, thus allowing individuals to adapt and thrive in their social environment (Payne, 2014). An example of this would be a child with a developmental disability. This child is part of a larger family system and has reciprocal exchanges amongst them. The family affects the child and the child's difficulties affect the family's functioning and quality of life (Turner, 2017). EST considers the child to be "nested" within their family, in the same way that the family is "nested" within a broader community system (Turner, 2017). EST provides a framework to understand the interaction that both the child with special needs and the family have in their environment (Bronfenbrenner, 1979). EST benefits social work practice by incorporating social factors as well as psychological functioning into people's lives, balancing the two pivotal elements of social work practice (Payne, 2014).

EST consists of five systems that look at a child's development within the context of the system of relationships that form in their environment (Bronfenbrenner, 1979). 1) The Microsystem consists of the direct contact and environment in an individual's life (Payne, 2014). Relationships have impact in two directions (called bi-directional influences), both away from the child and toward the child (Berk, 2000). For example, a child's parents may affect their beliefs and behaviors; however, the child also influences the beliefs and behaviors of their parents. Examples of this include the interactions and relationships with family, friends, school,

and neighborhood. 2) The Mesosystem involves the relationships between the microsystems (Payne, 2014). An example of this would be the relationship between the child's teacher and their parents. 3) The Exosystem refers to social institutions or larger social system that indirectly affects the individual (Payne, 2014). These institutions or larger social system impact the child's development by interacting with some aspect of their microsystem. An example of this would be a child's parent work schedule. The child is not directly involved, but they could feel the negative impact of not having a parent look after them due to having a busy schedule. 4) The Macrosystem refers to the larger social and cultural environment in which all the other systems exist, and draws heavily on attitude, ideologies, culture, and beliefs that have indirect effects on other systems and the individual (Twintoh et al., 2021). These values and principles defined by the macrosystem have an influence on the child's interactions with all other layers. For example, a parent's cultural belief is that they should be solely responsible for raising their children. This leads to the culture being less likely to provide resources to help parents and in turn, affects the structures in which the parents function. Elements of the macrosystem include socioeconomic status, ethnicity, race, cultural ideology, and geographic location. 5) The Chronosystem includes the transitions and major shifts in an individual's life (Payne, 2014). Examples of this include external elements such as a parent's death, or internal, such as physiological changes that occur with aging.

In this study, the Microsystem, Exosystem, and Mesosystems were used as the framework in understanding the target population's treatment seeking behavior. Encouragement from family and friends (Microsystem) play a vital role in whether a veteran seeks mental health treatment (Spoont et al., 2014). In terms of the Exosystem, there is evidence that some immigrant groups have more ethnic related, cultural treatment seeking treatment seeking

barriers, which include not having access to an ethnically competent therapist (Lee et al., 2021). PTSD treatment and outreach programs do not address issues for the target population, thus leading to not seeking mental health treatment. For the target population, the Mesosystem underlines and incorporates the relationship that occurs within the microsystem (Payne, 2014). An example of this would the relationship between an individual's family and the VA. If the individual's family does not believe in seeking mental health treatment from the VA and lacks trust in American institutions, this can prevent the individual from seeking mental health treatment. As Tsai and Kong (2012) state, Asian American, Vietnam War veterans were physically healthier but reported greater mental health issues than their counterparts. Other aspects of EST were as a framework for this study.

The Macrosystem was used as a framework to understand the discrimination being felt by the target population from their military peers or superiors, which have a direct negative impact on the individual. Minority veterans must face issues such as discrimination and race-related stress (Loo et al., 2007), and veterans who experienced discrimination led to more severe PTSD symptoms (Tsai & Kong, 2012). The Chronosystem was used as a framework to understand the target population's vulnerability to PTSD. After joining the military (life changing event), the target population is more vulnerable to PTSD than their counterparts. Before the target population joins the military, they are more susceptible to develop PTSD and other mental health issues (Sangalang et al., 2019) and accumulation of traumatic stress over one's lifetime prior to joining the military can be a predictor of PTSD and severity for veterans (Brownlow et al., 2018). While EST provides a great framework for aspects of this study, ecological view of psychological trauma and trauma recovery helps in understanding the trauma competent of this study.

Ecological View of Psychological Trauma and Trauma Recovery

The ecological view of psychological trauma and trauma recovery states that differences in individual responses and recovery to posttraumatic stress are due to the complex interactions among person, event, and environmental factors (Harvey, 1996). This ecological model presents a multidimensional definition of trauma recovery and proposes that trauma-focused interventions hinge on the relationship the individual has with their community and whether they achieve "ecological fit" within their recovery (Harvey, 1996). The "ecological fit" refers to a person's "perception of the 'fit' between their physical, intellectual, emotional, and motivational strengths and limitations and environmental resources (family, social networks, organizations, and physical space) to deal with a specific life stressor(s) or challenge(s)" (Gitterman & Heller, 2011). A "good fit" refers to an individual having the perception that they have sufficient personal and environmental resources to deal with whatever life stressors or event that they may experience (Gitterman & Heller, 2011). A "bad fit" is when an individual has the perception that their personal and environmental resources are not enough to deal with whatever life stressors or events that they may experience, which will often manifest in experiencing stress (Gitterman & Heller, 2011).

This ecological model contends that violent and traumatic events are ecological threats to the adaptive abilities and capacity to foster healthy and resiliency among affected individuals (Harvey, 1996). Factors such as community violence, racism, sexism, and poverty can overwhelm community resources, which can lead to negative outcomes for individuals within this community (Harvey, 1996). Similarly, if factors such as misogyny and patriarchy are the environmental contributors to sexual violence and as ecological threats to women, then community-based rape crisis centers are seen as ecological supports to the safety and well-being

of women (Koss & Harvey, 1991). This model focuses on community-level trauma and does not explicitly address military or combat trauma. For this study, this model is being expanded to address military trauma through community-based trauma and intervention outcomes. Another aspect of this ecological theory is the importance of how an individual assigns significance to circumstantial detail. An example of this would be a Muslim American, OEF/IEF veteran of who would be haunted by seeing a blown-up mosque during deployment. The aim would be to listen for subtleties of interpretation and remembrance, and to pay attention to the nuances of aspects like social constructions, which provide insight into an individual's unique posttraumatic response (Harvey, 1996).

In this study, ecological systems theory was used as a framework in understanding trauma and treatment seeking behavior for veterans, immigrants, and the target population. For veterans at large, military culture has a stigmatizing view on mental health and is predicated on self-reliance to deal with personal issues (Williston et al., 2019). The ecological view of psychological trauma and trauma recovery state that ecological influences can impede those seeking mental health treatment, which can lead to some individuals never recovering from trauma or PTSD (Harvey, 1996). This leads to veterans seeking treatment at half the rate of the population at large (Muller et al., 2017), which in turn leads to veterans not receiving timely or appropriate intervention, thus not allowing them to recover from their trauma (Harvey, 1996). First- and second-generation immigrants also have the added competent of dealing with pre- and post-migration trauma, which can lead to increases in mental illness and distress (Sangalang et al., 2019). "Ecological fit" plays a pivotal role in how an individual can handle and respond to traumatic experiences (Harvey, 1996). Thus, to gain a better understanding of the treatment

seeking behavior of the target population, the aim is to understand the nuances and interpretations of an individual's unique posttraumatic response (Harvey, 1996).

Summary of Theoretical Framework

The decision to use EST as a framework for this study was that it allowed for an understanding of the target population through their respective communities. The ethos of social work practice hinges on the biopsychosocial and to understand any individual, one must look at the systems they occupy. EST's foundation is to understand an individual through their engagement with families, communities, and other social agencies; and how these systems interact with each other (Payne, 2014). EST consists of five systems: the Microsystem, Mesosystem, Exosystem, Macrosystem, and Chronosystem. All five systems relate to this study in trying to understand the various issues in the target population's treatment seeking behavior. The ecological view of psychological trauma and trauma recovery states that exposure to traumatic events greatly affects an individual's resilience and adaptive abilities. This, along with ecological influences, hinders an individual's ability in seeking mental health treatment.

Chapter Five: Research Question

This section consists of the research questions for this study. This study seeks to close the gap in knowledge on the specific factors that facilitate and impede mental health treatment seeking behavior of first- and second-generation immigrant veterans. Studies show veterans with mental health illness face barriers to mental health treatment seeking, including mental health stigma (Williston et al., 2019) and lack of knowledge surrounding mental health (Johnson & Possemato, 2021). This study examined whether these factors also play a role in help seeking by immigrant veterans. There is evidence that some immigrant groups have more ethnic related, cultural treatment seeking treatment seeking barriers, which include not having access to an ethnically competent therapist (Lee et al., 2021). The current study seeks to extend our understanding of these factors by testing whether they also play a role in help seeking among immigrant veterans. Moreover, current research and theory suggests that the biggest barriers of treatment seeking for immigrants are lack of knowledge, language proficiency, and lack of access to a culturally competent therapist. As for veterans, the biggest barriers include mental health stigma and concerns about negative career repercussions in seeking mental treatment.

As described in the Theoretical Framework, Ecological Systems Theory (EST) and Ecological View of Psychological Trauma point to the role of discrimination, bicultural stressors, and assimilation has on treatment seeking behavior. Immigrants experience discrimination both prior to (Brabeck et al., 2021) and during military service (Loo et al., 2007). What has not yet been studied is whether prior discrimination or discrimination during military service has a greater impact of treatment seeking among immigrant veterans. There is also evidence of facilitators of treatment seeking for veterans, including encouragement from family and friends (Spoont et al., 2014). This study will test whether the facilitators also play a role for immigrant

veterans. This study will also test whether factors such as discrimination, bicultural stressors, and other factors such as cultural barriers and ingroup stigma, combine to explain treatment seeking behavior for the target population.

Research Questions and Hypotheses

Research Question #1:

To what extent do documented barriers to mental health treatment seeking among veterans (stigma, lack of knowledge, concerns about career repercussions) and among immigrants (lack of cultural fit, lack of knowledge) explain mental health treatment seeking behavior amongst first- and second- immigrant veterans?

Hypothesis #1a:

First- and second- immigrant veterans with high Barriers to seeking mental health counseling (BMHC) score are less likely to seek mental health treatment.

Hypothesis #1b:

A model combining all the documented barriers will be a strong indicator in treatment seeking behavior.

Hypothesis #1c:

All the documented barriers among veterans and immigrants each reduce the likelihood of mental health seeking amongst the target population.

Research Question #2:

To what extent do socio-cultural forces such as first- and second- immigrant veterans' experience of discrimination prior to and during military service and bicultural stress affect mental health treatment seeking?

Hypothesis #2:

Discrimination experienced prior to military service, discrimination during military service, and bicultural stress each reduce treatment seeking for the target population.

Research Question #3:

To what extent do the three documented facilitators: access to a culturally competent therapist and encouragement from friends and family, and treatment fit within the VA, impact mental health treatment seeking?

Hypothesis #3:

Access to a culturally competent therapist, encouragement from family and friends, and treatment fit within the VA each increase treatment seeking for the target population.

Research Question #4:

What model best predicts treatment seeking behavior for the target population?

Hypothesis #4:

A model including a combination of barriers and facilitators will be a stronger predictor of treatment seeking behavior than a model that only includes barriers or facilitators.

Chapter Six: Methodology

The Research Perspective

This research study is quantitative in nature and the surveys were distributed electronically to veterans across the nation. The study aims to address research gaps with first- and second-generation immigrant veterans. Inclusionary criteria for this study were: 1) they are part of the target population, which is either first- or second-generation immigrants and 2) a veteran, as defined by Title 38 of the Code of Federal Regulations. According to 38 CFR § 3.1 (2022), a veteran is one who served in the US Army, Navy, Marine Corps, Air Force, and Coast Guard, including their Reserve components and was who was discharged or released under conditions other than dishonorable ("38 CFR § 3.1-Definitions," 2022). The reasoning behind this criterion is that the researcher's goal is to understand the treatment seeking behavior for the target population, not all veterans. Limiting the sample to only the target population allows for specific data for this understudied subgroup of veterans.

Data and Subjects

The source of data for this study were gathered through individual online surveys, which participants filled out. Online recruitment occurred through various veteran groups and Facebook groups. Veteran groups were targeted for having a higher probability of the target population. For instance, groups like the Hispanic War Veterans of America, Veterans for New Americans, Asian American Veteran Council, and American Latino Veterans Association. Veteran groups that are also large in absolute numbers were also chosen, these groups include The American Legion, Veteran of Foreign Wars, and Disabled American Veterans. The researcher also realizes that these groups have an older demographic and may not be

technological savvy to access an online survey. Thus, groups with a younger population were also targeted, and include groups such as Iraq and Afghanistan Veterans of America, Iraq Veterans Against the War, and Service Women's Action Network. Facebook groups were also targeted with the above criteria, and these groups include Cal Veterans Group, NYU Military Alliance, Immigration Reform for Veterans, PTSD projects military veterans support group, disabled veterans, and Veteran PTSD Support and Recovery. The goal was to reach statistical significance by recruiting at least sixty participants.

Research Design

The quantitative research design for this study was cross-sectional. Quantitative research is used to provide an explanation for the relationship between variables that the researcher chooses to test (Creswell & Creswell, 2018). Correlational research is designed to identify negative or positive relationships between variables and the strength of these relationships, without the researcher controlling or manipulating the variables (Creswell & Creswell, 2018). Cross-sectional research consists of collecting data from many participants at a single point in time (Creswell & Creswell, 2018). This study aims to understand the relationship between the multiple factors that affect treatment seeking behavior amongst the target population. This does not mean that this correlational study can predict the causal (e.g., cause and effect) relationship but rather understand the relationships between the variables (Creswell & Creswell, 2018).

Measures

The following concepts will be used throughout the study: bicultural stressors, discrimination, treatment seeking barriers, and treatment fit with the VA. The research questions attempted to measure concepts focused on bicultural stress, discrimination, seeking mental health

treatment, and mental health treatment seeking barriers. Using this as a guide, the researcher found four scales to measure these concepts.

Demographics

The researcher chose to put the demographics portion at the beginning of the survey, due to the need of identifying eligibility of the respondent. There were fourteen total questions, which include follow-up questions. The researcher did not choose gender as a question due to the study being about first- and second-generation immigrant veterans, and not about gender. The researcher asked for age, ethnic background, years of service in the military. For immigrant status, there were five questions, which include “were you born outside the USA” and “were one of your parents born outside of the USA?” The researcher then asked if the respondent has ever deployed and if they ever struggled with mental health issues. The researcher then included two questions that revolve around facilitators in seeking mental health treatment. The question was asked “Do you have access to therapists who you feel can understand your cultural background?” According to the literature, finding a culturally competent therapist is a treatment seeking facilitator (Lee et al., 2021). Another question that was asked was “Do your friends and family support you in seeking mental health treatment?” According to the literature, encouragement from family and friends play a pivotal role in veterans seeking mental health treatment (Spoont et al., 2014). These facilitators were measured to test their impact on treatment seeking behavior. Finally, the dependent variable was asked, “Have you ever sought mental health treatment (voluntarily, not ordered by court or superiors).

Bicultural Stress Scale

The bicultural stress scale contains twenty questions in total. Some of the questions were developed from the Cuellar and Roberts (1997) adult stress scale, but altered with an adolescent focus on school, family, and peers (Romero & Roberts, 2003). Other items in the scale were developed based on previous scales that focused on minority status stressors and new items that the author derived from literature reviews that focused on intergenerational conflict, language stressors, and peer pressure to conform to an individual's ethnic group (Romero & Roberts, 2003). One of the central features of post-migration stress (which is applicable to both first- and second- generation immigrant veterans) is acculturation, which used as a framework to measure bicultural stress (Romero & Roberts, 2003). The acculturation process has negative mental health implications, which vary based on individual perception (Lazarus, 1997). Romero and Roberts (2003) defined bicultural stressors to include everyday life stressors within a bilingual and bicultural context and assessed bicultural stressors due to discrimination and intergenerational conflict and monolingualism stressors and used this scale to capture this phenomenon for Latinos in the United States. The scale was developed in English and translated to Spanish for the participants, all of whom were native Spanish speakers (Romero & Roberts, 2003). The researcher used all twenty items from this scale, which include the following changes.

Some changes were made due to the original scale being designed for Latino youth. For question f, or #6, "I have felt pressure to learn Spanish," was changed to "I have felt pressure to learn my native language." For g, or #7, "I have felt that I need to speak Spanish better," was changed to "I have felt that I need to speak my native language better." For i., or #9, "My friends think I'm acting 'White,'" was changed to "My friends think I'm acting too 'American.'" For i., or #9, the change in verbatim to 'American' was to reflect immigrant status, not racial

status. The rest of the scale has either language that explicitly describes the target population (e.g., 'traditional,' 'culture') or uses "ethnic background." According to the dictionary, ethnic is described as "pertaining to or characteristic of a people, especially a group (ethnic group) sharing a common and distinctive culture, religion, language, or the like" (Merriam-Webster, n.d.). Ethnic background encapsulates immigrant status, either from themselves or their parents, regardless of race or country of origin. Thus, the rest of the scale was unaltered, barring the above changes. While the Bicultural Stress scale was intended for Latino youth, this scale applies to the current study because the concept of bicultural stress transcends race and can be used to reflect acculturation issues facing the target population.

Barriers to seeking mental health counseling (BMHC) scale

To assess the participants' barriers to seeking mental health services, the Barriers to seeking mental health counseling (BMHC) scale was used (Shea et al., 2019). The BMHC scale has been revised and validated with a sample of immigrant teens and young adults. This scale was originally validated and revised based on younger samples, prior to the analysis, the validity of its scale across first- and second-generation immigrant veterans will be performed by Confirmatory Factor Analysis. Due to some of the respondents not having had any mental health issues, there were two sets of instructions. One, "For those of you who have struggled with mental health issues OR have sought mental health treatment: For the following questions, choose the response that BEST relates to your thoughts about seeking mental health treatment. Two, "For those of you who never struggled with mental health issues or have never sought mental treatment, these questions are intended for your thoughts about seeking mental health treatment. For the following questions, choose the response that BEST relates to your thoughts about seeking mental health treatment." Due to the confusion the participants without mental

health issues would have, the researcher felt that the instructions should be altered to provide clarity and that this data would be beneficial in understanding the target population's views on seeking mental health treatment, even if they have never had any PTSD symptoms. The researcher also felt that the literature highlighted the importance of social support encouragement in leading veterans to seeking mental health treatment (Spoont et al., 2014).

In this study, a modified version of the BMHC was used. The original scale contains 39 questions, with the researcher using a modified version. Using prior confirmatory factor analysis, this modified version contains 27 questions and resulted in six barriers: Negative Perceived Value, Discomfort with Emotions, Ingroup Stigma, Lack of Knowledge, Lack of Access, and Cultural Barriers (Shea et al., 2019). The attitudes toward seeking professional help, or negative perceived value scale, was used to measure whether they would act on help-seeking action (Shea et al., 2019). This scale refers to the individual's negative attitude and/or negative perceived value toward seeking mental health counseling (Shea et al., 2019). There were 5 hypothesized indicators of Negative Perceived Value, which include "I don't think talking with a mental health counselor would be useful" and "I like to count on my friends or family for support rather than reach out to a mental health counselor." The BMHC used the self-stigma of seeking help scale to measure a participant's anticipated self-stigma in seeking mental health treatment (Shea et al., 2019). There were 5 hypothesized indicators of self-stigma of seeking help, which include "My family or significant other will judge me poorly if I disclose my problems to a mental health counselor" and "Most people in my cultural group would not approve of my decision to seek mental health counseling." The discomfort with emotions scale (5-item) was used to measure both internally experiencing and externally disclosing painful emotions, which has been cited as a barrier to seeking mental health counseling amongst college

students (Shea et al., 2019). The indicators for the discomfort of emotions scale include "I would feel embarrassed about sharing my feelings with a mental health counselor" and "I would feel nervous about showing the emotional side of me during the mental health counseling process." The Structural/logistical barriers, or the lack of knowledge and lack of access scales, was used to measure an individuals' lack of knowledge and difficulty accessing services due to financial, geographical, or time constraints (Shea et al., 2019). There were 7-items and the indicators for this scale include "I don't know how to where to seek mental health counseling" and "I have no financial means (e.g., insurance, money) to afford mental health counseling." The cultural barriers scale (5-items) was used to access the attitudes and cultural values of the participants toward either the counselor or counseling process (Shea et al., 2019). The indicators for this scale include "I perceive that most mental health counselors would not be sensitive to issues related to my cultural identity" and "I don't think that most mental health counselors would understand my cultural values." All indicators were measured in ordinal format (1= slightly disagree to 6=strongly agree). Additionally, BMHC scale was administered to understand a college student's potential barriers to seeking mental health treatment and the results may inform appropriate outreach and intervention programs (Shea et al., 2019).

While the BMHC was designed to measure barriers for college-aged students, this scale applies to the current study because the primary objective is to understand how culture and minority status affect treatment seeking behavior. For the BMHC scale, immigrant and minorities have the same experience of being college students as their generational American counterparts, however this study aims to understand how culture, race, and minority status affect treatment seeking barriers amongst immigrants and minorities. For the researcher's study, the target population and its counterparts have the same experience as veterans, however due to

various factors (e.g., culture, discrimination, etc.) have different treatment seeking barriers. Due to this similarity and the scale having verbiage that applies to everyone, the BMHC scale will not be altered for the researcher's study.

Fit within Veterans Health Administration (VHA) scale

Fit within Veterans Health Administration Measure was used to find the relationship between women's veteran identity and implications for service use and experiences in the Department of Veterans Affairs (VA) health care setting. Veteran identity was defined as "one's self-concept as derived from their veteran status" (Di Leone et al., 2016, p. 60). For the researcher's study, the scale fit within VHA (Veterans Health Administration) was used. This eight-item measure was used to assess the participants' perceptions in their similarity to other VHA patients. While Fit within Veterans Health Administration Measure was used in understanding women veterans' issues, this scale can also be used towards the target population regarding the complex association of veteran identity and minority status. As evidenced by the veteran identity centrality scale of the Fit within Veterans Health Administration Measure was taken from a scale centered around Black identity (Di Leone et al., 2016). The Fit within Veterans Health Administration Measure has neutral phrasing (e.g., "my," "I") to address the participant, thus there is no need to alter the scale for the researcher's study. The indicators for this scale include "My health care needs are very different from most veterans who use the VA for health care" and "My military experiences were very different from most veterans who use the VA for health care."

Discrimination Scales (Lifetime and Everyday)

Kershaw et al., (2016) measured the correlation between everyday discrimination and lifetime discrimination to negative health outcomes (recent infection, anti-inflammatory medication use, and hormone replacement therapy). The Everyday Discrimination scale, which contained nine-items, and Lifetime Discrimination scale, which contained six-items, was intended to assess negative health outcomes. However, these scales apply to this study because discrimination is a prominent issue that affects the target population in treatment seeking behavior. If the target population experienced discrimination during their military service, it will likely affect their belief and trust in institutions like the VA to help their PTSD symptoms. The Everyday Discrimination scale has neutral phrasing to address the participant, thus the basic phrasing was not altered.

Everyday Discrimination scale

Everyday discrimination was defined as day-to-day minor incidents of unfair treatment across different race and ethnic groups (Kershaw et al., 2016). This scale was based on the Detroit Area Study and asked the participants to cite the number of experiences in which they perceived that they were treated unfairly on an everyday basis, but the perceived reason for this unfair treatment was not assessed (Kershaw et al., 2016). To differentiate the discrimination felt prior and during the military service, the Everyday Discrimination scale was given twice, once with instructions for "prior to military service" and once for "during military service." For prior to military service, the instructions were as follows "Please answer the following questions and indicate how often you would encounter this kind of treatment prior to your military service" and during military service, the instructions were "Please answer the following questions and indicate how often you would encounter this kind of treatment during your military service." The past tense was also used to reflect that the participants are veterans and are not presently in

military service. For example, on #1 the original question was "You are treated with less courtesy than other people." For this study, the phrasing was altered to "Were you treated with less courtesy than other people?" Or for #4, the original question was "People act as if they are afraid of you" was altered to "People acted as if they were afraid of you." All indicators were measured in ordinal fashion (1-6), which consisted of: 1= Almost every day to 6= Never.

Lifetime Discrimination Scale

Lifetime discrimination was designed to measure the accumulation of exposure to major stressors over time (Kershaw et al., 2016). This scale was adapted from the Detroit Area Study and using a dichotomous questionnaire (yes/no) (Kershaw et al., 2016). If the participant answered yes, they would then rate their perceived reason for their unfair treatment (eight choices total, with one choice being 'other') (Kershaw et al., 2016). To differentiate the discrimination felt prior and during the military service, the Everyday Discrimination scale was given twice, once with instructions for "prior to military service" and once for "during military service." For prior to military service, the instructions were as follows "Please answer the following questions and indicate how often you would encounter this kind of treatment <u>prior</u> to your military service" and during military service, the instructions were "Please answer the following questions and indicate how often you would encounter this kind of treatment <u>during</u> your military service." The indicators for this scale include "Do you think you have ever been unfairly fired or denied a promotion?" and "Have you ever been unfairly prevented from moving into a neighborhood because the landlord or a realtor refused to sell or rent you a house or apartment?" All indicators were measured in nominal fashion, which consisted of 1-6 (more detail provided below).

Demographic choices of Lifetime Discrimination Scale

The original scale had eight choices: race/ethnicity, gender, age, religion, physical appearance, sexual orientation, income level/ social class, other. Wanting to be consistent with the everyday discrimination (six total choices), the researcher chose to have six total choices. The researcher chose to eliminate sexual orientation, income level/social class, and age, as these were not variables that were addressed in the Research Questions or the Demographic questionnaire. The researcher chose to add the choice "immigrant status," due to the relevance to this study. Therefore, the six choices are: race/ethnicity, gender, religion, physical appearance, immigrant status, and other.

Ethical Concerns and Protection of human subjects

No one in this study will be under eighteen (as the military has an age requirement of eighteen years old to join), thus there will be no informed consent from parents for minors. For this study, informed consent will be provided in English and the potential participant must consent before the survey will be delivered to them. The consent form will contain information regarding anonymity (no identifiable information), that their participation is voluntary, and that they can stop at any point during the survey. Potential participants will also be informed that their data will be retained for at least three years but that their survey is confidential and cannot be traced to them. Once the potential participant consents, they will receive an email where they can access the survey via a link. Regarding the survey itself, there are questions that pertain to PTSD or trauma, which could be a delicate issue for veterans. As a measure to curb this issue, the researcher limited the questions pertaining to severity of PTSD symptoms or recalling specific episodes of trauma.

Procedures

This study used non-probability sampling, which is where the researcher selects participants with a subjective method and not random selection (Creswell & Plano Clark, 2017). Non-probability sampling (or convenience sample) is where participants are chosen based on their convenience and availability (Creswell & Creswell, 2018). The purpose of the study is to gain an understanding of a subgroup (first- and second-generation immigrant veterans) and not the entire group (veterans). Non-probability sampling is designed to gain an understanding of a targeted set of people, based on their location or characteristics (Creswell & Creswell, 2018).

After receiving approval from the Institutional Review Board, the researcher sent out an email (Appendix B) to the administrators of veteran groups, as listed earlier, which include Hispanic War Veterans of America, Veterans for New Americans, and Veteran of Foreign Wars. If the administrators of these groups agreed to allow the researcher access to their member's email list, the researcher sent a mass email to this list with a letter to the potential participants (Appendix C). Additionally, the administrators could email the members themselves with the letter to the potential participants (Appendix C). If the member qualified to take part and consented to the study, they were invited to click a link which will direct them to the survey (Appendix A). Data was collected through Qualtrics and analyzed with the data software, Stata.

Data Analysis

The data was analyzed with Stata, which allowed the researcher to find correlation between variables. Descriptive statistics were used to analyze independent variables, such as the measure of frequency (count, percent), tendency (mean, median, mode), dispersion (range, standard deviation), and position (percentile and quartile ranks) (Tabachnick & Fidell, 2013) as well as provide significance and predictive models. The dependent variable is treatment seeking behavior while the independent variables include bicultural stressors, discrimination, cultural

barriers, and mental health stigma. The survey collected demographic information to provide descriptive data about the participants and to include demographic variables as control variables. Multiple regression was used as the factor analysis for this study.

Multiple regression is frequently used because it provides a way to understand the relationship of a set of independent variables to a dependent variable, while explaining or predicting a dependent variable (Orme & Combs-Orme, 2009). Using multiple regression, the researcher can test the hypotheses using multivariable analysis. Multivariable analysis is a generalization of ANOVA where there are multiple variables for each unit or individual (Tabachnick & Fidell, 2013). An example of this would be to find the relationship between the independent variables (as listed in the BMHC scale) of negative perceived value of mental health counseling, discomfort with emotions, ingroup stigma, lack of knowledge, lack of access, and cultural barriers, to the dependent variable of treatment seeking behavior. Multiple regression allows the researcher to tell how powerful this relationship is (or is not), in what direction the relationship is, whether the data is statistically significant, and, with less certainty, assess the importance of each of the independent variables to the relationship (Tabachnick & Fidell, 2013). According to Tabachnick and Fidell (2013), logistic regression allows the researcher "to predict a discrete outcome such as group membership from a set of variables that may be continuous, discrete, dichotomous, or a mix" (p.439). Furthermore, according to Tabachnick and Fidell (2013), logistic regression "allows one to evaluate the odds (or probability) of membership in one of the groups (e.g., belly dancer) based on the combination of values of the predictor variables (e.g., 35-year-old female professors who read science fiction)" (p.24).

Regarding the research questions for this study, the dependent variable is seeking mental health treatment. The Independent Variables are as follows. For research question #1 of this

study, the independent variables are barriers in seeking mental health treatment, which include the subscales of stigma, lack of knowledge, lack of access, negative perceptions of mental health, cultural barriers, and discomfort with emotions. Research question #1 also used discrimination, both prior to and during military service, fit within the VHA, and bicultural stress as independent variables. For research question #2 of this study, the independent variables were bicultural stress, discrimination experienced prior to military service, and discrimination experienced during military service. For research question #3 of this study, the independent variables were access to a culturally competent therapist, encouragement from friends and family, fit within the VHA. The dependent variable would be seeking mental health treatment. It should be noted that fit within the VHA was used for both the barriers and facilitators models. Fit within the VHA could impact both focal variables (barriers and facilitators), which is why it was included in both models. For research question #4, the independent variables would be barriers in seeking mental health treatment (stigma, lack of knowledge, concerns about career repercussions, lack of cultural fit), bicultural stress, discrimination experienced prior to, and during, military service, as well as the facilitators of "access to a culturally competent therapist," "encouragement from friends and family," and treatment fit within the VA. It should be noted that this question is measuring the strength of various models.

Control Variables

For all the hypotheses, the researcher chose the covariates of race, deployment, and mental health issues to control for the hypotheses. A control variable is a variable that is not of interest and is held constant but must be controlled due to the ability that it can influence the results (Acock, 2018). Due to the high number of white respondents (31%), and most of the scales in the study were at least partially race based (discrimination, bicultural stress, BMHC),

the researcher felt that race (white respondents) could influence the data. Deployment can greatly increase a military member's chance of developing mental health issues, which can be as high as six times more than a military member who did not deploy (Ursano et. al., 2018). Due to this enhanced risk and subsequently impacting the data, the researcher felt it would be beneficial to control for deployment. The aim of this research is to understand why those in the target population are not seeking mental health treatment, with the prerequisite that one needs to be experiencing, or has experienced, mental health issues. Controlling for individuals who have never had mental health issues, preserves the data in understanding those who have had mental health issues within the sample.

Table 6.1 – Variables and Hypotheses

Hypothesis	Variable Name	Definition	Level of Measurement	Variable Use	Analysis
H1a: First- and second-immigrant veterans with high BMHC score are less likely to seek mental health treatment.	Barriers to seeking mental counseling (BMHC) scale	Assesses perceived mental health help-seeking barriers among college students (Shea et al., 2019).	Ordinal	Dependent variable: Mental health treatment seeking behavior Independent variable: BMHC score	Logistic Regression
H1b: All six of the documented barriers among veterans and immigrants each reduce the likelihood of mental health treatment seeking.	Negative perceived value of mental health counseling Ingroup stigma Lack of Knowledge Cultural barriers	Negative perceived value of mental health counseling: A person's negative attitude and/or negative perceived value toward seeking professional help (Shea et al., 2019)	Ordinal	Dependent variable: Mental health treatment seeking behavior Independent variable: negative perceived value of mental	Logistic Regression

		Ingroup stigma: Stigma associated with disapproval of seeking mental health treatment by one's in-group (e.g., cultural group, family and friends) (Shea et al., 2019). Lack of Knowledge: An individual's lack of knowledge about available mental health services and lack of access due to financial, geographical, or time constraints (Shea et al., 2019). Cultural Barriers: Discrepancies perceived or experienced by an individual toward their counselor and/or counseling process (Shea et al., 2019).		counseling, ingroup stigma, lack of knowledge, and cultural barriers	
H1c: A model combining all the documented barriers will decrease treatment	Barriers to seeking mental counseling	Perceived mental health help-seeking barriers among college students	Ordinal	Dependent variable: Mental health treatment seeking behavior	Logistic Regression

seeking behavior.				Independent variable: BMHC score	
H2: Discrimination experienced prior to military service, discrimination during military service, and bicultural stress each reduce treatment seeking for the target population.	Everyday Discrimination Lifetime Discrimination Bicultural Stress	Everyday discrimination: day-to-day minor incidents of unfair treatment across different race and ethnic groups (Kershaw et al., 2016). Lifetime Discrimination: measure the accumulation of exposure to major stressors over time (Kershaw et al., 2016). Bicultural stress: Everyday life stressors within bilingual or bicultural context and assessed bicultural stressors due to discrimination and intergenerational conflict and monolingualism stressors (Romero & Roberts, 2003).	Dichotomous (Lifetime Discrimination) Ordinal (Everyday Discrimination, Bicultural stress)	Dependent variable: Mental health treatment seeking behavior Independent variable: Lifetime discrimination, everyday discrimination, and bicultural stress	Logistic regression

H3: Access to a culturally competent therapist, encouragement from family and friends, and treatment fit within the VHA each increase treatment seeking for the target population.	Encouragement Culturally competent therapist Fit within the VHA	Encouragement: To seek mental health treatment by significant people in a veterans' social network (Spoont et al., 2014) Culturally competent therapist: A culturally attuned therapist (Lee et al., 2021). Treatment fit within the VA: find the relationship between veteran's identity and implications for service use and experiences in the Department of Veterans Affairs (VA) health care setting (Di Leone et al., 2016).	Dichotomous (Encouragement and Culturally competent therapist) Ordinal (Treatment fit within the VHA)	Dependent variable: Treatment seeking behavior Independent variable: Encouragement, culturally competent therapist, fit within the VHA	Logistic Regression

H4: A model including a combination of barriers and facilitators will be a stronger predictor of treatment seeking behavior than a model that only includes barriers or facilitators.	BMHC scale Lifetime Discrimination Everyday Discrimination Bicultural Stress Encouragement Culturally competent therapist Fit within the VHA	(See definitions above)	Dichotomous Ordinal	Dependent variable: Treatment seeking behavior Independent variables: BMHC scale, Lifetime Discrimination, Everyday Discrimination, Bicultural Stress, Encouragement, culturally competent therapist, fit within the VHA	Logistic Regression

Chapter Seven: Findings

There was a total of 560 surveys that were completed on Qualtrics. To filter the data to find eligible respondents, the following parameters were enacted. First, a response must have taken at least ten minutes to complete. The reasoning behind this was the researcher, colleagues, as well as members of the committee, took the survey to test how long it would take to complete. The timeframe ranged from ten to twenty minutes. When receiving the data, the two Lifetime Discrimination scales had questions needing a 'yes' to the preceding prompt and the Bicultural Stress having a choice of 'does not apply,' which may explain the variance in duration to complete the survey. Second, the researcher did not allow duplicate IP addresses to turn in the survey. Third, the researcher eliminated responses that were suspicious. This consisted of more than two responses that were started and turned in at the same exact time, and responses that were nearly identical (in responses and demographic information). Fourth, respondents must have answered 'yes' to being born in another country or having at least one parent being born abroad. The respondent must also have answered which country, or countries, they or their parents were born in. This is to filter out generational Americans and focus entirely on the target population. Fifth, all responses that require a fill-in response (age, years of military service, country of birth [for 1st generation], countries of birth of parents [for 2nd generation]) must be completed. Those that left any of these questions blank, will not be counted. This is to prevent bots or other extraneous users from being counted. Sixth, respondents who stated that they are active duty (from the years of service question), were also eliminated from consideration, as this is a study on veterans, not active-duty members. After the filters were enacted, there were a total 131 respondents.

The researcher recruited participants in the following ways. First, numerous veteran organizations were contacted via email and/or telephone, with three stating that they would add a description to the study in their newsletter: Chinese American Military Support Group (CAMS), National Association of Minority Veterans of America (NAMVETS of America), and the Japanese American Veterans Association (JAVA). Second, Facebook groups that posted a description to the study include Cal (UC-Berkeley) Veterans Group, Veterans Support Group, NYU Military Alliance, and Asian Pacific American Veterans. Third, the researcher posted a description of the survey, which was made public, on his personal Facebook and LinkedIn accounts. Fourth, the researcher reached out to former military colleagues, both active duty and veterans, to share the study on their page. The researcher only contacted colleagues that served for eight years or longer, in hopes that their Facebook friends list would consist of a lot of veterans. A total of twelve former colleagues shared the study, all of whom made the study public.

Descriptive Statistics

Tables 7.1 - 7.3 presents detailed information related to the demographics of the study (n=131). Table 7.1 presents detailed information on age, race, years of military service, and whether they have been on deployment.

Table 7.1

	Years (*N*)	*N (%)*
Age		
Mean	39.37 (131)	
Race		
Black or African American |		17 (13.00)
Hispanic or Spanish Origin |		18 (13.74)

Latino or Latinx			11 (8.40)
Middle Eastern or North African			3 (2.30)
Native Hawaiian or Pacific Islander			3 (2.30)
South Asian			10 (7.63)
Southeast Asian			18 (13.74)
East Asian			6 (4.6)
White			41 (31.3)
I prefer not to disclose			4 (3.05)
Total		131 (100)
Years of military service		
Mean	5.87 (131)	
Ever been on deployment		
Yes		42 (32.31)
No		88 (67.69)
Did not state		1 (.76)

Table 7.2 presents detailed information on the immigration status of the participants. The participants are almost split evenly (51/49) between first- and second-generation immigrant veterans. However, the majority (77%) of all participants were either born abroad or entered the US before age 18.

Table 7.2

	N (%)
Born outside of the USA	
Yes	67 (51.15)
No	64 (48.85)
Total	131 (100)
Age Entered the United States	

Before 18	101 (77.10)
After 18	19 (14.5)
Did not state	11 (8.4)
At least one parent born outside of the USA	
Yes	131 (100)
No	0 (0)
Total	131 (100)

Table 7.3 presents detailed information on mental health. Most of the participants (108) struggled with some sort of mental health issue(s) and voluntarily sought mental health treatment (102), making the treatment seeking rate for the sample at 94%.

Table 7.3

	N (%)
Struggled with any mental health issues	
Yes	108 (82.44)
No	23 (17.56)
Total	131 (100)
Sought mental health treatment	
Yes	102 (78.46)
No	28 (21.54)
Did not state	1 (.76)
Total	131 (100)

First-generation vs. Second-generation veterans

Table 7.4 and 7.5 presents detailed information on the descriptive statistics and facilitator data. When comparing first- and second- generation immigrant veterans, the data shows that

second-generation immigrant veterans (56%) felt that finding a culturally competent therapist is more difficult in comparison to their first-generation counterparts (67%).

Table 7.4 – First generation immigrant veterans – Descriptive statistics and Facilitators

	N (%)
Struggled with any mental health issues	
Yes	55 (82.1)
No	12 (17.9)
Total	67 (100)
Sought mental health treatment	
Yes	52 (77.6)
No	15 (22.4)
Total	67 (100)
Access to a culturally competent therapist	
Yes	44 (67.7)
No	21 (32.3)
Encouragement from family and friends	
Yes	61 (91.0)
No	6 (9.0)

Table 7.5 – Second generation immigrant veterans – Descriptive Statistics and Facilitators

	N (%)
Struggled with any mental health issues	
Yes	53 (82.8)
No	11 (17.2)
Total	64 (100)
Sought mental health treatment	
Yes	50 (79.4)
No	13 (20.6)
Total	67 (100)
Access to a culturally competent therapist	

Yes	36 (56.2)
No	28 (43.8)
Encouragement from family and friends	
Yes	58 (90.6)
No	6 (9.4)

Table 7.6 and 7.7 presents detailed information on the scores of the scales. Second generation immigrant veterans scored higher on bicultural stress than their first-generation counterparts (50.56 to 49.67, or a 1.8% difference). Second-generation veterans also scored higher, on average, in all six subscales of the BMHC scale and on the BMHC scale itself. The highest difference between the two groups, by percentage, of the subscales were Negative value of mental health (8%) and ingroup stigma (6.4%), while the smallest difference was in lack of knowledge (.9%). The BMHC scale itself had a 5.8% difference (91.05 to 86.06). Second-generation immigrant veterans also scored lower on the fit within the VHA scale, which means that they feel less comfortable with the VHA than the first-generation counterparts (24.89 to 28.67, or a 15% difference).

First-generation immigrant veterans scored higher on all four discrimination scales, with prior to the military lifetime discrimination yielding the biggest difference (3.09 to 2.72, or 14% difference). Also of note, first-generation immigrant veterans scored lower in both discrimination scales after joining the military, but second-generation immigrant veterans scored higher in everyday discrimination after joining the military (29.14 to 30.06, or 3.2%). The other variables or descriptive statistics (encouragement from family and friends, mental health issues, sought mental health treatment) yielded little to no difference.

Table 7.6 – First generation immigrant veterans scores

Variable	N	Mean	Std. dev.	Min	Max
Negative value of mental health	67	15.46	5.022	5	26
Ingroup Stigma	67	14.99	4.67	5	30
Discomfort of emotions	67	16.90	3.97	5	25
Lack of knowledge	67	9.40	2.96	3	18
Lack of Access	67	12.49	4.01	4	24
Cultural Barriers	67	17.19	4.32	5	26
BMHC total score	67	86.06	16.64	29	121
Prior to the military					
Lifetime Discrimination	67	3.09	2.12	0	6
Everyday Discrimination	67	29.84	10.20	12	52
During the military					
Lifetime Discrimination	67	2.66	2.07	0	6
Everyday Discrimination	67	28.67	11.77	9	54
Bicultural Stress	66	49.67	19.14	4	80
Fit within the VHA	65	26.58	4.73	6	38

Table 7.7 – Second generation immigrant veterans scores

Variable	N	Mean	Std. dev.	Min	Max
Negative value of mental health	64	16.70	4.92	5	25
Ingroup Stigma	64	15.95	4.71	5	30
Discomfort of emotions	64	17.94	3.84	5	25
Lack of knowledge	64	9.48	2.49	3	15
Lack of Access	64	12.97	3.55	4	21
Cultural Barriers	64	17.95	3.72	5	26
BMHC total score	64	91.05	17.65	27	134
Prior to the military					

Lifetime Discrimination	64	2.72	1.81	0	6
Everyday Discrimination	64	29.14	9.37	9	45
During the military					
Lifetime Discrimination	64	2.34	1.91	0	6
Everyday Discrimination	64	30.06	11.05	9	47
Bicultural Stress	64	50.56	14.00	19	74
Fit within the VHA	63	24.89	3.71	15	33

Analyses

Stata statistical software was used to test the hypotheses surrounding treatment seeking behavior of the target population. Logistic regression was used to examine the relationship between seeking mental health treatment, the dependent variable, and treatment facilitators, barriers to seeking mental health treatment, bicultural stress, discrimination, and treatment fit within the VA when controlled for the covariates of race (dichotomous, white/non-white), whether the respondent has deployed, coded as 'deployment' (dichotomous, yes/no), and whether the respondent has ever suffered from mental health issues (dichotomous, yes/no). It should also be noted that the researcher checked for the violation of the multicollinearity test by using Variance Inflation Factor (VIF). None of the variables that were used were not correlated to one another, as evidenced with all VIF scores being below 5.00 and mean VIF to be 2.23 (Appendix F).

Reliability Analysis

Barriers to seeking mental health counseling (BMHC) scale

The modified version of the BMHC scale was 27 close-ended questions with six subscales: Negative Perceived Value, Discomfort with Emotions, Ingroup Stigma, Lack of

Knowledge, Lack of Access, and Cultural Barriers (Shea et al., 2019). All indicators were measured in ordinal format, which range from 1=slight disagree to 6=strongly agree. This means that the higher the composite score, the more barriers the participant feels in getting mental health treatment. Questions related to the modified version of the BMHC scale were assessed for reliability using Cronbach's alpha, $\alpha = .89$. Based on the value of alpha, the BMHC scale has a good internal consistency.

Lifetime Discrimination Scale – Prior to, and during, military service

Lifetime discrimination scale used a dichotomous format and if the participant answered "yes," they would then select the reason for their unfair treatment (Kershaw et al., 2016). To differentiate the discrimination felt prior and during the military service, the Lifetime Discrimination scale was given twice, once with instructions for "prior to military service" and once for "during military service." There were a total six questions used for the reliability analysis, with a higher composite score representing a higher level of lifetime discrimination. Questions related to the Prior to military service Lifetime Discrimination scale were assessed for reliability using Cronbach's alpha, $\alpha = 0.75$. Based on the value of alpha, the Prior to Lifetime Discrimination scale has an acceptable internal consistency. Questions related to the During military service Lifetime Discrimination scale were assessed for reliability using Cronbach's alpha, $\alpha = 0.77$. Based on the value of alpha, the During military service Lifetime Discrimination scale has an acceptable internal consistency.

Everyday Discrimination Scale - Prior to, and during, military service

Everyday Discrimination scale consisted of a total of nine questions and asked participants to cite the number of experiences in which they perceived that they were treated

unfairly on an everyday basis. All indicators were measured in ordinal fashion (1-6), which consisted of: 1= Almost every day to 6= Never, with a higher composite score representing a higher level of lifetime discrimination. To differentiate the discrimination felt prior and during the military service, the Lifetime Discrimination scale was given twice, once with instructions for "prior to military service" and once for "during military service." Questions related to the Prior to military service Everyday Discrimination scale were assessed for reliability using Cronbach's alpha, $\alpha = 0.92$. Based on the value of alpha, the Prior to military service Everyday Discrimination scale has an excellent internal consistency. Questions related to the During military service Everyday Discrimination scale were assessed for reliability using Cronbach's alpha, $\alpha = 0.95$. Based on the value of alpha, the During military service Everyday Discrimination scale has an excellent internal consistency.

Bicultural Stress Scale

The Bicultural Stress scale consists of twenty total questions and asked participants to rate their level of stress with bicultural stressors. Indicators were measured in ordinal fashion, ranging from 1 = Not at all stressful to 5 = Very stressful, while the choice 'does not apply' was a neutral choice (0). The higher the composite score, represents more bicultural stressors that the participant faces. Questions related to the Bicultural stress scale were assessed for reliability using Cronbach's alpha, $\alpha = .95$. Based on the value of alpha, the Bicultural Stress scale has an excellent internal consistency.

Fit within Veterans Health Administration (VHA) scale

Fit within Veterans Health Administration scale consists of eight total questions and asked participants to assess their perceptions in their similarity to other VHA patients. All

indicators were measured in ordinal fashion, ranging from 1 = Strongly disagree to 5 = Strongly agree. The higher the composite score, the less a participant feels that they are like other VHA patients. Questions related to the Fit within VHA scale were assessed for reliability using Cronbach's alpha, $\alpha = .63$. Based on the value of alpha, the Fit within VHA scale has an acceptable internal consistency.

Hypothesis #1a:

First- and second- immigrant veterans with a high BMHC score are less likely to seek mental health treatment.

This research question aims to measure the extent of documented barriers (e.g., stigma) to seeking mental health treatment within the target population. The BMHC scale is used to assess the barriers in seeking mental health treatment. The hypothesis predicted that the higher the BMHC score, the less likely the target population will seek mental health treatment when controlled for the covariates of race, deployment, and mental health issues. The results showed no statistical significance between BMHC scores and seeking mental health treatment. However, the odds of seeking mental health treatment were higher for individuals with the covariate mental health issues (OR = 375.6, 95% CI [42.0 to 3360.6], p = .00).

Table for regression

	Estimates	95% CI	Odds Ratio	95% CI	P>|z|
BMHC	-.04	-.08, .01	.96	.92, 1.00	.057
Race	1.1	-.20, 2.4	3.1	.82, 11.4	.09
Deployment	-.57	-2.0, .90	.57	.13, 2.5	.45
Mental Health Issues	5.9	3.7, 8.1	375.6	42.0, 3360.6	.00

Hypothesis #1b:

All the documented barriers among veterans and immigrants each reduce the likelihood of mental health seeking amongst the target population.

The BMHC scale was not statistically significant however, when adding other variables, there was statistical significance. The results showed that the odds of seeking mental health treatment were lower with the subscale of 'Perceived negative value of mental health' (OR=.55,

95% CI [.33 to .92]; p = .01) and ‘lack of access’ (OR = .59, 95% CI [.35 to .97]; p = .04) while the odds of seeking mental health treatment were higher with Bicultural stress (OR=1.11, 95% CI [1.0 to 1.2]; p = .02). It should be noted that when using BMHC scale as a composite score, there was no statistically significant impact on seeking mental health treatment (Hypothesis 1a). However, when using the BMHC subscales, negative perception and lack of access were statistically significant (Hypothesis 1b). For the covariate ‘mental health issues,’ the odds of seeking mental health treatment were higher (OR = 3201.6, 95% CI [43.1 to 237808.5]; p = .00).

Table for regression

	Estimates	95% CI	Odds Ratio	95% CI	P>|z|
Prior to the military					
Lifetime Discrimination	.99	-.26, 2.23	2.70	.77, 9.3	.12
Everyday Discrimination	-.09	-.27, .10	.92	.76, 1.10	.35
During the military					
Lifetime Discrimination	-1.6	-3.3, .11	.20	.04, 1.2	.07
Everyday Discrimination	.16	-.09, .39	1.16	.92, 1.5	.21
Negative perceived value	-.60	-1,1, -.08	.55	.33, .92	.02
Ingroup Stigma	.29	-.14, .73	1.3	.87, 2.0	.19
Discomfort of Emotions	.17	-.20, .51	1.19	.82, 1.7	.37
Lack of Knowledge	-.07	-.54, .38	.92	.59, 1.47	.74
Lack of Access	-.54	-1.0, .03	.58	.35, .97	.036
Cultural Barriers	-.01	-.40, .37	.99	.67, 1.45	.95
Bicultural Stressors	.10	.02, .19	1.11	1.02, 1.20	.018
Fit within VHA	.25	-.03, .52	1.28	.98, 1.68	.07
Race	.99	-.70, 2.7	2.70	.50, 14.43	.25
Deployment	-.14	-2.2, 1.9	.87	.11, 6.7	.89
Mental Health Issues	8.1	3.8, 12.38	3201.6	43.10, 237808.5	.00

Hypothesis #1c:

A model combining all the documented barriers will be a strong indicator in treatment seeking behavior

This model combined the subscales of the BMHC scale, all discrimination scales, bicultural stress scale, and the treatment fit within the VA scale. The hypothesis predicted that this model of documented barriers would be a strong indicator in treatment seeking behavior. For this model, the Pseudo R2, or the goodness of fit, was a 0.70.

Hypothesis #2:

Discrimination experienced prior to military service, discrimination during military service, and bicultural stress will decrease treatment seeking for the target population.

This research question aims to measure the extent of how socio-cultural forces such as discrimination (both prior to, and during military service) and bicultural stress affect mental health treatment seeking amongst the target population. This hypothesis predicted that discrimination and bicultural stress would decrease treatment seeking for the target population when controlled for the covariates of race, deployment, and mental health issues. The results showed that discrimination (both prior and during military service) and bicultural stress were not statistically significant in effecting an individual's mental health seeking behavior. It should be noted that bicultural stress did yield statistical significance when included in a model containing all the documented barriers (Hypothesis 1b) but did not yield statistical significance when included in a model with discrimination only (Hypothesis 2). However, the covariate 'mental health issues,' was statistically significant and the odds of seeking mental health treatment were higher with mental health issues (OR=192.1, 95% CI [3.2 to 7.3]; p = .00).

Table for regression

	Estimates	95% CI	Odds Ratio	95% CI	P>|z|
Prior to the military					
Lifetime Discrimination	.18	-.41, .76	1.9	.66, 2.2	.56
Everyday Discrimination	-.01	-.06, .07	.95	.82, 1.08	.44
During the military					
Lifetime Discrimination	-.31	-1.0, .40	.74	.37, 1.49	.39
Everyday Discrimination	.02	-.13, .15	1.0	1.0, 1.10	.86
Bicultural Stressors	.04	-.01, .09	1.05	.98, 1.10	.062
Race	.82	-.50, 2.15	2.3	.60, 8.6	.22
Deployment	.01	-1.53, 1.55	1.0	.22, 4.7	.99
Mental Health Issues	5.3	3.2, 7.3	192.1	25.4, 1450.2	.00

Hypothesis #3

Access to a culturally competent therapist, encouragement from family and friends, and treatment fit within the VA will increase treatment seeking for the target population.

This research question aims to find the extent of which the three documented facilitators impact mental health treatment seeking amongst the target population when controlled for the covariates of race, deployment, and mental health issues. This hypothesis predicted that these facilitators would increase mental health treatment seeking amongst the target population. The results show that the odds of seeking mental health treatment were higher with the facilitator 'culturally competent therapist' (OR=7.7, 95% CI [1.4, 43.5]; p = .02) and 'Encouragement to seek treatment from family and friends' (OR=14.92, 95% CI [1.5 to 146.4]; p = .02). Fit within the VHA was not statistically significant. For the covariate 'mental health issues,' the odds of seeking mental health treatment were higher (OR = 452.4, 95% CI [36.5 to 5599.1]; p = .00). This hypothesis includes the scale, fit within the VHA, as well as demographic questions

(dichotomous, yes/no) ‘Do you have access to therapists who you feel can understand your cultural background?’ and ‘Do your friends and family support you in seeking mental health treatment?’ For the chart below, access to a culturally competent therapist is labeled “Therapist” and friends and family support is labeled “Encouragement.”

Table for regression

	Estimates	95% CI	Odds Ratio	95% CI	P>|z|
Therapist	2.0	.31, 3.77	7.71	1.4, 43.5	.02
Encouragement	2.70	.42, 4.99	14.92	1.52, 146.4	.02
Fit within VHA	.07	-.08, .21	1.07	1.05, 1.34	.36
Race	1.02	-.38, 2.4	2.79	.71, 10.9	.14
Deployment	-1.13	-3.0, .73	.32	.05, 2.06	.23
Mental Health Issues	6.1	3.6, 8.60	452.4	36.5, 5599.1	.00

Hypothesis #4

A model including a combination of barriers and facilitators will be a stronger predictor of treatment seeking behavior than a model that only includes barriers or facilitators

This hypothesis predicted that a model that combines both barriers and facilitators would be a strong predictor of treatment seeking behavior when controlled for the covariates of race, deployment, and mental health issues. The barriers for this model include the following scales: the six barriers in the BMHC scale, which include negative perceived value of mental health, ingroup stigma, discomfort of emotions, lack of knowledge, lack of access, and cultural barriers. The discrimination scales: everyday discrimination prior to military service, lifetime discrimination prior to military service, everyday lifetime discrimination during military service, and lifetime discrimination during military service. The bicultural stress scale was also included for the barriers. For the facilitators, the fit within the VHA scale was used, as well as

demographic questions (dichotomous, yes/no) ‘Do you have access to therapists who you feel can understand your cultural background?’ and ‘Do your friends and family support you in seeking mental health treatment?’ For this model, the Pseudo R2, or the goodness of fit, was a 0.77. When compared to the barriers model (Pseudo R2 = 0.70) and the facilitators model (Pseudo R2 = 0.59), this model that includes barriers and facilitators (Pseudo R2 = 0.77) is the strongest predictor of treatment seeking behavior for the target population.

Barriers and Facilitators of seeking treatment

The facilitator of encouragement from family and friends is the protective factor with the barriers of negative perception of mental health and lack of access.

Given the data above, this hypothesis predicted that encouragement from family and friends would be the protective factor for seeking mental treatment for the variables that lowered the odds of seeking treatment (negative perception of mental health and lack of access). When running an interaction between encouragement and negative perception of mental health and lack of access, the researcher controlled for the covariates of race, deployment, and mental health issues. There was no statistical significance between encouragement and treatment seeking behavior. For negative perception of mental health, there was a negative association between the variable negative perception of mental health and treatment seeking behavior (β = -.62,; 95% CI [-.08, -.03]; p = .015). When running an interaction between encouragement with perceived negative value, there was a statistical significance (β = .79,; 95% CI [.02, .08]; p = .02). Encouragement from family and friends could play a protective role on the negative consequences in the negative perception of mental health.

Table for regression

	Coefficient	95% CI	Beta	95% CI	P>|z|

Encouragement	-.54	-1.3, .26	-.36	-1.2, .08	.19
Negative value	-.05	-.09, -.01	-.62	-.08, -.03	.015
Interaction: Encouragement					
With Negative value	.05	.01, .07	.79	.02, .08	.02
Encouragement	.24	-.46, .94	.16	-.64, 1.1	.50
Lack of Access	-.01	-.05, .04	-.07	-.07, .05	.75
Interaction: Encouragement					
with Lack of Access	.02	-.01, .05	.11	-.05, .07	.26

Chapter Eight: Discussion

There is evidence that immigrants (Aragona et al., 2012) and veterans (Muller et al., 2017) are seeking mental health treatment at a less than desirable rate, even though they may be more susceptible to mental health issues (Lee et al., 2021). A possible explanation for this may be due to immigrants experiencing bicultural stress (Li & Anderson, 2015) and not having enough treatment facilitators, which include having access to a culturally competent therapist (Lee et al., 2021). This chapter highlights the findings from the study, recommendations on how to alleviate these issues, limitations of the study, and areas for future research.

Discussion

Research on the target population is limited, with much of the current literature focusing on veterans or immigrants, and not on immigrant veterans. The research questions in this study focused on what barriers and facilitators impact treatment seeking behavior for the target population. The findings suggest that perceived negative value of mental health and lack of access decrease the odds of seeking mental health treatment, while bicultural stress, and the treatment facilitators of "access to a culturally competent therapist" and "encouragement from family and friends," increase the odds of seeking mental health treatment. When constructing a model that best predicts treatment seeking behavior, a model that consists of both barriers and facilitators best predict treatment seeking behavior, more so than models that only consist of barriers or facilitators. This chapter highlights, as well as provide context, to these findings as well as discuss each concept in further detail.

Treatment Seeking

Seeking mental health treatment was defined as someone who sought mental health treatment voluntarily (not ordered by court or supervisors) at any point in their lives. The data from this study found that 94% of those who suffered from mental health issues sought mental health treatment. This finding differs from the literature, as the rate of seeking treatment is higher for both immigrants (Lee et al., 2021) and veterans (Muller et al., 2017). The data from this study indicates that the target population may be seeking treatment at a higher rate than immigrants or veterans.

Negative Perceptions of Mental Health

The framework for negative perception of mental health surrounds the conception and recognition of mental health problems, culturally informed etiology, and conceptions of cure (Shea et al., 2019). Research shows that negative perceptions of mental health is a barrier for seeking mental health treatment both for immigrants (Demazure et al., 2022) and for veterans (Silvestrini et al., 2021). The data from hypothesis 1c, found that the negative perception of mental health lowered the odds of seeking mental health treatment. This finding supports the existing research, as immigrants may not be as clear on what mental health care consists of, which leads to distrust of the mental health care field (Demazure et al., 2022). The data from this study indicates that the target population needs more information about mental health and that if they were to seek treatment, that mental health care should be curated towards their issues and needs.

Lack of Access

The framework for lack of access to mental health treatment are logistical barriers such as financial, geographical, or time constraints (Shea et al., 2019). Research shows that lack of access decreases seeking mental health treatment both for veterans (Hester, 2017) and for

immigrants (Diaz & Fenning, 2021). The data from hypothesis 1c, also found that the lack of access lowered the odds of seeking mental health treatment. Not having access to mental health treatment can be devastating, as veterans who need, but do not receive mental health care, is often a leading cause for suicide (Hester, 2017, thus why it is imperative to have more access to mental health treatment (e.g., more hours) before symptoms become worse. The data from this study indicates that the target population may struggle more with lack of access issues than their generational American counterparts.

Bicultural Stress

Research shows that the bicultural stress has negative health implications, for both first- and second-generation immigrants (Lozano et al., 2022) and that second-generation immigrants are at particular risk of acculturative stressors (Liu et al., 2022). The data also indicates this, as bicultural stress leads to increased odds of seeking mental health treatment, and that second-generation immigrant veterans are more prone to having bicultural stress than their first-generation immigrant counterparts (Table 7.6 and 7.7). The findings from this study indicate that being more attuned and aware of issues surrounding bicultural stress, especially of second-generation immigrant veterans, could lead to an increase in seeking mental health treatment for the target population.

Access to a Culturally Competent Therapist

The data from hypothesis three showed that access to a culturally competent therapist increased the probability of seeking mental health treatment, which supports the existing research that access to a culturally competent therapist is a facilitator for seeking mental health treatment (Lee et. al., 2021). This indicates that the target population feels that access to a culturally competent therapist greatly influences their treatment seeking behavior, which also

aligns with the existing research (Meyer & Zane, 2013). The data also showed that fewer second-generation immigrant veterans feel that they have access to a culturally competent therapist, in comparison to their first-generation counterparts (Tables 7.4 and 7.5). The findings from this study indicate that the target population needs access to a culturally competent therapist, especially second-generation immigrant veterans. Using technological advances (e.g., telemedicine) can provide more effective and efficient treatment, and allows the target population access to culturally competent therapist, which could increase the odds of seeking mental health treatment.

Encouragement from family and friends

The data from this study shows that the influence of family members and friends hold significant impact in treatment seeking behavior of the target population, which corresponds with the existing research (Spoont et. al., 2014). The data from hypothesis three shows that encouragement from family and friends increase the odds of seeking mental health treatment while the interaction between encouragement and negative perception of mental health showed that encouragement from family and friends may be the protective factor in seeking mental health treatment. The data from this study indicate that the target population may need more encouragement from their social support network in seeking mental health treatment; thus, it is imperative to include family members, which can be through language accessibility and family involvement during treatment.

Recommendations for Social Work

Social Work Education

The findings from this study suggest that first- and second-generation immigrant veterans respond differently to bicultural stress, the implication being that first- and second-generation have differing issues and needs. Social Work education must strive to view the veteran holistically and Social Work educators must teach students to not view veterans through a narrow prism, but as a diverse group with varying issues, culture, and values. A way to change the perspective about first- and second-generation immigrant veterans to future social workers is to educate them properly. Many organizations, including educational institutions, are shaped by the dominant culture, which makes it difficult for them to develop the proper clinical interventions for understudied groups (McGoldrick et al., 2021). As with any other population, first- and second- generation immigrants are not a monolith, and their issues and needs can vary widely (Stroink & Lalonde, 2010). As evidenced by the data (tables 7.4 & 7.5), fewer second-generation immigrant veterans feel that they have access to a culturally competent therapist, in comparison to their first-generation counterparts (56% to 68%, respectively). Second-generation immigrant veterans may need an intervention that is subtle but requires unconventional modes of thinking. Social Work educators must strive to teach future social workers about second-generation immigrant veterans with historical context, self-awareness, maintaining a nonjudgmental attitude, and expanding their lexicon (Bowland et al., 2013). Something as simple as using words only second-generation immigrants use, such as a hybrid of the language they use at home and English (e.g., Spanglish), can build rapport in a subtle but effective way.

As noted above, bicultural stress is a prominent issue, especially for second-generation immigrant veterans. This suggests that when working with second-generation immigrant veterans, therapists should address issues that combat bicultural stress, and not just monocultural issues. An example would be first-generation immigrant veterans may have more of a language

barrier (Lee et al., 2021) but second-generation immigrant veterans may need more attention to understanding the nuance of acculturation issues (Suarez-Orozco et al., 2021), such as navigating between two cultures but never quite fitting into one (Stroink & Lalonde, 2010).

Social Work Practice

According to the data from this study, access to a culturally competent is essential in seeking treatment for the target population, the implication being that if the target population had more access to a culturally competent therapist, they would be more prone to seeking mental health treatment. While there is no direct link between this issue and telemedicine, what is clear is that telemedicine can be a more efficient way for the target population in accessing a culturally competent therapist. While it would be nearly impossible to match therapists and clients with similar demographics (e.g., race, immigrant status) in physical locations like clinics and hospitals, it is much more feasible with telemedicine, or technology-based, services. Research shows that minority clients feel that race and ethnicity were an important factor in mental health treatment (Meyer & Zane, 2013). Telehealth services require much less overhead (Grubbs et al., 2022) and allows organizations to hire therapists from around the country, and not be restricted by the talent that is located within a client's immediate or metropolitan area. Telemedicine allows the target population, especially those in a rural setting or abroad, to access mental health services regardless of where they are located (Hughes et al., 2019). If a second-generation Nigerian immigrant lives in a rural or predominantly white city or town, their access to a culturally competent therapist is significantly decreased. However, through telemedicine, organizations can hire a more diverse workforce and choose from a larger pool of applicants, which can better serve the needs of second-generation immigrant veterans. Technology-based

intervention can also be used for changing negative perceptions of mental health, another barrier to seeking treatment for the target population.

While changing perspectives of mental health is a challenging feat, using tools such as technology and understanding the needs of the target population, can help ease the worries around mental health treatment for the target population. Research shows that when psychoeducation is delivered through technological means (e.g., websites, apps), it can fuel public interest in discussing mental health, raise public awareness and combat negative perceptions of mental health (Ross, 2020). The use of target advertisements from various platforms (e.g., YouTube, Google, Facebook) geared towards the target population, and emphasizing that privacy and confidentiality will be upheld when seeking mental health treatment, as this is a particularly important issue for immigrants (Arora & Algios, 2019), could be considered. Another way of dispelling negative perceptions of mental health is to focus on issues that the target population values. Immigrants have a negative perception of psychotherapy (Rogers-Sirin, 2013), and instead tend to focus on day-to-day problems and do better in activity-based interventions and group sessions (Demazure et al., 2022). A marketing campaign that focuses on these aspects of therapeutic interventions can be more appealing to the target population, which can assist in changing the negative perceptions of mental health. While technology-based treatment can be useful, Social Work practitioners must also be cognizant of choosing the correct treatment for the target population.

The target population is a diverse group, and some individuals may respond to certain types of Evidence Based Practices (EBPs), such as CBT, while others may not. When working with the target population, Social Work practitioners should be open towards alternative therapeutic methods such as Mindfulness, which has been employed by institutions like the VA

and has shown effectiveness (Kukla et al., 2022) and could be of particular importance when dealing with bicultural stress (Liu et al., 2022). Using alternative treatment models could be vital for improving outcomes for the target population, especially for individuals that do not respond as well to Western treatment modules (Comas-Dias, 2005).

Social Work Policy

As the data demonstrates, the target population has a variety of needs, which include lack of access and encouragement from family and friends. From a policy perspective, organizations that work with veterans, like the VA, could mirror that of the city of San Francisco's Community Behavioral health services. This city program offers a 24-hour, 7 day a week hotline in multiple languages, which include Chinese, Spanish, Vietnamese, Tagalog, and Russian. This is important, as research has shown that family involvement is vital in seeking treatment for the target population (Song et al., 2022). The city also has hotlines that include suicide prevention, psychiatric emergency services, and mobile crisis, which allows its diverse occupants access to a variety of mental health services that suit their needs. The veteran population is also diverse and providing 24-hour access to a wide ranging of mental health needs and involving family members, and not just a suicide hotline, can help prevent a mental health crisis now and in the future. To alleviate the issue of lack of access, resources should be allocated towards organizations that allow them to make mental health care more accessible, but with the target population in mind.

To improve the outcomes for immigrant veterans, public and non-profit health providers (both state and local) must work together to increase the availability of crisis intervention and mental health services (Hester, 2017). With a collaborative effort, these providers can consolidate resources and provide more mental health hotlines, and mental health clinics, that are

open after hours and on weekends. While weekday, 9 to 5 clinics are helpful, many immigrant veterans work during this time and are not able to take enough time off work, or other obligations, for meaningful therapy (e.g., once a week) (Bommersbach et al., 2021; Swick & Powers, 2018). While this is an optimal solution, it may not be the most cost-effective, which would be essential for the VA. The VA has an operating budget of $440 billion dollars for fiscal year (FY) 2021 and is applying to increase that budget to $469.9 billion for FY 2022 ("Office of Research & Development," 2021). While this may seem like a lot of funding, the VA budget accounts for several things (e.g., benefits programs and departmental administration), and less than half goes to the VHA ("Office of Research & Development," 2021); which is why it is essential for Congress to focus on the most cost-effective solution in delivering health care to veterans. Hiring mental health service contractors could be a possible solution. The VA currently has contractors for mental health services, but it is only intended for "limited situations" ("Community Care," 2022). While it would be harder for the VA to monitor what a contractor does, this should not be the focus. What is important is finding what is most effective and efficient in terms of treating the target population and if the VA is unable to provide adequate services for the target population, contracting out these services could better address their needs (e.g., access to a culturally competent therapist). Most veterans do not think the VHA can provide adequate healthcare (Farmer et al., 2016), thus using contractors could enhance seeking mental health treatment. Money is another factor, and while costly in the short term, not needing to pay retirement funds or other benefits for VA workers could be more cost-effective in the long term. Opening a physical location also has a lot of overhead, which include utility bills, rent, and security, while hiring a contractor would alleviate these long-term costs. Encouragement from family and friends, and family involvement are also crucial in the target

population seeking mental health services. Lack of access to mental health care can be alleviated through simple and creative solutions.

Community and family involvement is crucial for the target population in seeking mental health treatment. Research has shown that virtually (online) delivered support programs help immigrants in establishing communities and encouragement surrounding challenging topics like mental health (Song et al., 2022). Resources should be allocated towards helping family members and friends and, like the suggestions made for lifting negative perceptions of mental health, these include a hotline, website, and apps, that educate them in how they can help encourage their veteran family member that needs mental health treatment. While the target population may need a requisite level of English proficiency, the family members and friends may not be as proficient in English. To improve outreach to these family members and friends, resources should be allocated towards translating these documents, whether on the app and website, to various languages. Research shows that a language barrier is a barrier for first-generation immigrants (Swick & Powers, 2018) and engaging with families of first- and second-generation immigrants (Arora & Algios, 2019). Having information of what to say and do to encourage, and what not to say or do that could potentially discourage their loved ones from seeking mental health treatment; as well as any other resources these family and members and friends can access to help the target population. Particular attention should be paid towards the target population, and their unique issues, verbiage, culture, etc. Another way to encourage the target population in seeking mental health treatment is involving the family during mental health treatment. Research has shown that immigrants respond to family-based interventions, which alleviate their stressors and prevent poor health outcomes (Lozano et al., 2022). Involving

family in mental health treatment can make treatment feel less daunting and lonely, while allowing family members to participate and feel vested in their outcome.

While minority immigrants may not find psychotherapy to be effective (Rogers-Sirin, 2013), with these tools and technological advances, this could enhance the probability that treatment can be useful, and increase the accessibility to mental health treatment, all in the comforts of the client's home. There would not be a need to take time off work or needing transportation to get to and from a mental health service provider. Despite the barriers that exist (i.e., not technologically savvy), older veterans still identified potential benefits and solutions for telehealth services (Weldon et al., 2022). While websites and apps currently exist, and have shown effectiveness in treating anxiety, depression, and stress (Grubbs et al., 2022), more can be done to enhance these services and make them more user-friendly and effective, and accessible to the target population.

Implications for Future Research

The findings of this study supported some, and negated other findings of prior research. While documented barriers such as lack of access and negative perceptions of mental health, and facilitators such as access to a culturally competent therapist and encouragement from family and friends, were significant. While barriers such as discrimination and facilitators such as fit within the VHA, were not significant. Additional research is needed to determine whether it was due to limitations of the current study or because barriers and facilitators are in fact different for immigrant veterans, than for immigrants and veterans distinctly. Whether it is through lifting negative perceptions of mental health or increasing access to services, the specific needs of the target population must be addressed. The findings of this study demonstrated that more research

is needed to gain a better understanding of the target population and their treatment seeking behavior.

The role of discrimination

While research shows that discrimination plays a part in not seeking mental health treatment amongst minority veterans (Miller et al., 2022), it was surprising that all four-discrimination scales were not statistically significant in any of the logistic calculations for this study. This may signify more research is needed in understanding the role that discrimination, as well as in tandem with race/ethnicity and gender (since they are the bases of discrimination), plays in treatment seeking behavior for the target population. Qualitative research may provide the best research strategy, as the feeling of discrimination can be complex with stigma and internalized behavior (Lakeman et al., 2012), especially with the added variable of military culture. Qualitative research can better capture the experience of discrimination as it is deeply personal, and a scale may not accurately depict the level of impact it has on treatment seeking behavior.

Models in predicting seeking mental health treatment

While literature exists for understanding the mental health treatment seeking barriers and facilitators for immigrants and veterans, there are limited studies in understanding which model is the best predictor for treatment seeking behavior. Hypothesis four found that a model that includes barriers and facilitators is the best predictor of treatment seeking behavior for the target population. While the barriers and facilitators model had the highest Pseudo R-Squared, this does not necessarily indicate that this is the best model. As Acock (2018) states, Pseudo-R-Squared may not explain the variance of the model and some researchers do not report the

pseudo-R-Squared. More research should be done to understand what combination of barriers and facilitators increase, or decrease, treatment seeking amongst the target population. An example would be combining the barrier of discrimination, with the facilitator encouragement from family and friends, would lead to increased treatment seeking behavior but discrimination combined with access to a culturally competent therapist, would lead to a decrease in seeking mental health treatment. Finding a more in-depth model would clarify the potentially nuanced treatment seeking behavior of the target population.

Fit within the VHA

It was surprising that fit within the VHA was not significant in any of the regression models. As Hester (2017) suggests, veterans that do not primarily rely on the VHA to address their mental health issues, may not be receiving the proper crisis intervention elsewhere. Which is not surprising, as the VHA's mission is to focus solely on the issues of veterans, and this should be the primary source of mental health needs for veterans. However, only a fraction of veterans uses the VHA as their primary source of medical treatment (Farmer et al., 2016), it is important to understand why that is so. In the future, a researcher could consider survey questions such as "If you were to seek mental health treatment (or are currently seeking), where would you go?" with choices that would be "a) VA b) outside the VA." Another question could be "Would you ever seek mental health treatment with the VA?" with choices being "a) yes b) maybe c) not at this time d) never." These questions could serve as the dependent variable(s) in figuring out why the target population are choosing to use, or not use, the VA for their mental health care needs.

Differences in First- and Second-Generation Immigrant veterans

As tables 7.6 and 7.7 illustrate, there are distinct differences between first- and second-generation immigrant veterans. Just like any other group, the target population is not a monolith, and their issues should not be treated as such. Further research, in particular qualitative research, can start to understand the nuance of identity, especially amongst second-generation immigrant veterans. Future research could explore the impact on help seeking of phenomenon of feeling not fully 'American' or a member of the country of origin, and the confusion of feeling like a patriotic Veteran but experiencing discrimination and/or xenophobia.

Lack of Access

As the data shows, lack of access was an important finding in understanding treatment seeking behavior of the target population. According to Table (not in existence yet), the question with the highest mean for lack of access was, "I don't have time to seek or stay in counseling," while the question with the lowest mean was "I have too many responsibilities to other people (e.g., family, friends, significant others) that would prevent me from seeking mental health counseling." As noted above, technology and more accessible hours can alleviate many issues regarding time to access services, but it does solve all the problems. A study that focuses on more extensive questions, such as for financial means, "If your insurance provider did provide mental health counseling, would you seek treatment?" or "What is your treatment deductible for mental health treatment? What is the highest amount you would pay for you to seek treatment?" With lack of time, questions that could be considered are "If your provider, or the VHA, had more accessible hours, would seek mental health treatment?" or "What hours would you prefer most to access therapy?" These in-depth lack of access questions could provide specific answers as to which factors are most at play with lack of access for the target population.

The use of technology

The use of technology was used frequently in this study as a solution to many of the issues regarding seeking mental health treatment for the target population. While technology has shown promise in solving these issues (Grubbs et al., 2022), little is known about the effectiveness of treatment. Examples of these questions could include "What kind of online treatment modules work best for you?" or "Do you prefer individual or group therapy when using online treatment?" The use of technology in delivering therapeutic interventions is still new, and there is much more to learn in understanding what kinds of technology-based therapy would work best for the target population.

Facilitators for seeking mental health treatment

While much attention is paid towards treatment barriers, it is equally as important to understand facilitators in seeking mental health treatment (Stroink & Lalonde, 2010). In this study, the two facilitators that were used (encouragement from family and friends and access to a culturally competent therapist) were both statistically significant in seeking mental health treatment. In the future, more work could be done to explore what other facilitators exist for the target population. Possible independent variables that could be considered include positive experience while in the military, and/or mental health education prior to, or during, military service.

Gender

Future research should explore the impact that gender has on the target population and treatment seeking behavior. As Harper et al. (2022) state, men with relationship issues tend to seek mental health treatment, while relationship issues are not a motivating factor for women, which illustrate the gender differences in mental health care utilization. Future quantitative

research could shed light on the interaction between gender and treatment seeking facilitators and barriers.

Race/Ethnicity

For this study, there were a high number of white respondents (31%). The subscales from the BMHC (e.g., cultural barriers), and the bicultural stress and discrimination scales, are at least partially race-based, and having a large group that may not deal with these issues, may have altered the data. While some white immigrant groups could have face bicultural stress and discrimination (e.g., Eastern European immigrants), others from English-speaking, first-world nations would not. In the future, having a list of countries that would disqualify a potential participant (e.g., someone of Caucasian descent that was from England, Australia, New Zealand, Canada, Ireland, or South Africa) would provide a more precise analysis of the impact of race-affected barriers like discrimination and bicultural stress on treatment seeking.

Treatment seeking

In this study, most of the respondents who struggled with mental health issues (108) also sought mental health treatment (102). This may have altered the data, as the odds ratio and confidence interval for mental health issues were high. While this study could have included a criterion that only allowed for participants that struggled with mental health issues, the researcher wanted to understand this understudied group's thoughts on variables such as discrimination, barriers, and facilitators of seeking treatment. However, in the future it would be beneficial to recruit a higher percentage of participants who have struggled with mental health issues but have not sought mental health treatment. This allows the researcher to have would provide a clearer understanding of the barriers that prevent the target population from seeking

mental health treatment. Moreover, with a large enough sample size with both seekers and non-seekers represented, comparisons could be made between those who sought and those who did not seek treatment.

Limitations of the Study

This study had several limitations. Due to the nature of data collection (online survey), it is impossible to know with certainty that the respondents were veterans. While this is a concern, the benefits of an online survey (ability to reach more veterans, ability for respondents to answer personal questions in private, etc.) outweigh the limitations; the researcher also employed measures to combat this issue. First, as illustrated in the findings section, the researcher set forth parameters (time to finish survey, duplicate IP address, suspicious responses, meet eligibility criteria, must complete all fill-in responses) to eliminate any extraneous or non-eligible respondents. Second, most of the groups that posted the study were military centric groups that have their own vetting process (e.g., NAMVETS of America, Veterans Support Group, etc.) as well as colleagues whom I personally served with, who posted their study on their Facebook page. Third, due to the increased variables in certain models, this could have affected the Pseudo R-Squared value, therefore the results should be cautiously interpreted. Fourth, the BMHC scale was used to measure college students' rather than veterans' potential barriers to mental health treatment, thus results should be cautiously interpreted.

Another limitation of the study is the Cronbach's alpha value of $\alpha = .63$ for the scale Fit within the VHA. A value of around 0.70 or greater is widely considered to be desirable however, there is no clear consensus on the acceptable value of Cronbach's alpha, and different scholars use different terminology for the same values (Taber et. al., 2018). Studies that have a Cronbach's alpha value between .45-.60 were considered acceptable given the limited number of

items in the scale (Berger & Hanze, 2015). Fit within the VHA had eight total questions, which was the lowest amongst all the scales that were used. While it would be ideal to have a higher Cronbach's alpha for Fit within the VHA, .63 is acceptable in this case.

Another limitation of the study is that the sample may not be representative of the veteran or immigrant population in terms of treatment seeking rate. In this study, about eighty percent of respondents suffered from mental health illness and about seventy eight percent of respondents sought mental health treatment. This data for rates of seeking mental health treatment is significantly higher than what the existing research shows, both for immigrants (between 18%-29%) (Lee et al., 2021) and veterans (about 50%) (Muller et al., 2017). The sample may not be representative of all immigrant veterans however it may be representative of immigrant veterans who suffer from mental health issues, thus making it the right sample to study treatment seeking behavior. While this sample had a much higher rate than existing research, this data gave valuable insight into the barriers and facilitators of seeking mental health treatment, as those with mental health issues are the best providers of information for this topic. It should be noted that it is difficult to determine whether this is representative, given the lack of data on the target population. The data from this study serves as an introduction, and there is much more to learn about this understudied group.

Conclusion

The findings of this study show that the target population has certain factors that both increase (bicultural stress, access to a culturally competent therapist, encouragement from family and friends) and decrease (perceived negative value of mental health, lack of access) the odds of seeking mental health treatment for the target population. Many of these findings overlap with prior research regarding immigrants and veterans, such as encouragement from family and

friends increase seeking mental health for veterans (Spoont et al., 2014) and lack of access to a culturally competent therapist decrease seeking mental health treatment for immigrants (Lee et al., 2021). What the findings did show is that the target population has unique needs, such as bicultural stress affecting treatment seeking behavior, in particular second-generation immigrant veterans. These findings have implications for the social work field, which include the need to increase access to a culturally competent therapist and family encouragement.

Future research is needed to further develop our understanding of the needs of this understudied group. Specifically, future studies should explore the role that discrimination plays for immigrants from different global regions and of different racial/ethnic groups. Additional research is also needed on the role of treatment facilitators and their interaction with barriers. Finally, new models that increase access to culturally competent therapist, such as Telehealth, should be tested and rigorously evaluated.

References

38 CFR § 3.1-Definitions (2022). https://www.law.cornell.edu/cfr/text/38/3.1

Adler, J. L., & Page, T. F. (2019). Disability reporting among U.S. immigrant veterans: Findings and implications. *Journal of Military and Veterans' Health, 27(2), 18–27.*

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.).

Anakwenze O. & Rasmussen A. (2021). The impact of parental trauma, parenting difficulty, and planned family separation on the behavioral health of West African immigrant children in New York City. *Psychological Trauma: Theory, Research, Practice, and Policy*. *13(4),* 457-466

Aragona M., Pucci D., Mazzetti M., Maisano B., & Geraci S. (2013). Traumatic events, post-migration living difficulties and post-traumatic symptoms in first generation immigrants: A primary care study. *International Journal of Public Health, 49(2), 169-75*.

Arora, P. G., & Algios, A. (2019). School-based mental health for Asian American immigrant youth: Perceptions and recommendations. *Asian American Journal of Psychology*, *10*(2), 166–181.

Barbour, S. (2010*).* *Post-Traumatic Stress Disorder.* ReferencePoint Press, Inc.

Berger, R., & Hänze, M. (2015). Impact of expert teaching quality on novice academic performance in the jigsaw cooperative learning method. *International Journal of Science Education, 37*(2), 294–320

Berk, L.E. (2000). *Child Development (5th ed.*). Boston: Allyn and Bacon. 23-38

Black, W.G. (1991). Social Work in World War I: A Method Lost. *Social Service Review*, *65(3)* 379-402.

Bommersbach, T., Stefanovics, E., & Rosenheck, R. (2021). Mental health service utilization in rural areas nationally in the Veterans Health Administration. *Journal of Rural Mental Health*, *45*(3), 229-242

Brabeck K.M., Cardoso J.B., Chen T., Bjugstad A., Capps R., Capoverde E., & Trull A. (2022). Discrimination and PTSD among Latinx immigrant youth: The moderating effects of gender. *Psychological Trauma: Theory, Research, Practice, and Policy*. *14(1),* 11-19.

Bredbenner, C.L. (2012). A Duty to Defend: The Evolution of Aliens' Military Obligations to the United States, 1792–1946. *Journal of Policy History 24(2)*, 224–262.

Brennan, L.A., Brady, J., Drummond, K., Wiltsey-Stirman, S., Gutner, C. & Iverson, K. (2022) "Mental Health Clinician Perspectives Regarding Factors Impacting Implementation of Evidence-Based Psychotherapies in Veterans Health Administration Community-Based Outpatient Clinics." *General Hospital Psychiatry 75*, 54–60.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments of nature and design*. Cambridge, MA: Harvard University Press.

Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In W. Damon & R. M. Lerner (Eds.). *Handbook of child psychology, Vol. 1: Theoretical models of human development*, 6th ed., 793–828.

Brownlow J.A., Zitnik G., McLean C. & Gehrman P.R. (2018). The influence of deployment stress and life stress on Post-Traumatic Stress Disorder (PTSD) diagnosis among military personnel. *Journal of Psychiatry Research, 103*, 26-32.

Comas-Dias, L. (2005). Becoming a multicultural psychotherapist: The confluence of culture, ethnicity, and gender. *Journal of Clinical Psychology, 61*(8), 973-982.

Community Care (2022). https://www.va.gov/COMMUNITYCARE/programs/veterans/General_Care.asp

Creswell, J.W. & Creswell, J.D. (2018). *Research design: qualitative, quantitative, and mixed methods approaches.* Thousand Oaks, CA: Sage.

Creswell, J.W. & Plano Clark, V.L. (2017). (3rd ed.). *Designing and conducting mixed methods research.* Thousand Oaks, VA: Sage.

Creswell, J.W. & Poth, C.N. (2018). *Qualitative inquiry and research design: Choosing among five traditions. 4th.ed.* Thousand Oaks, CA: Sage.

Cuellar, I. & Roberts, R. E. (1997). *Acculturative stress in Mexican American adults.* Unpublished manuscript

Davison, K. M., Hyland, C. E., West, M. L., Lin, S. L., Tong, H., Kobayashi, K. M., & Fuller-Thomson, E. (2021). Post-traumatic stress disorder (PTSD) in mid-age and older adults differs by immigrant status and ethnicity, nutrition, and other determinants of health in the Canadian Longitudinal Study on Aging (CLSA). *Social Psychiatry and Psychiatric Epidemiology*, *56*(6), 963–980.

Di Leone, B. A. L., Wang, J. M., Kressin, N., & Vogt, D. (2016). Fit within Veterans Health Administration Measure. *Psychological Services, Vol 13(1),* 60-68

Diaz, Y., & Fenning, P. (2021). Toward Understanding Mental Health Concerns for the Latinx Immigrant Student: A Review of the Literature. *Urban Education*, *56*(6), 959–981.

Demazure, G., Baeyens, C., & Pinsault, N. (2022). Review: Unaccompanied refugee minors' perception of mental health services and professionals: a systematic review of qualitative studies. *Child & Adolescent Mental Health*, *27*(3), 268–280.

Duckers M., Alisic E., & Brewin C. (2016). A vulnerability paradox in the cross-national prevalence of post-traumatic stress disorder. *British Journal of Psychiatry, 209*(4), 300-305.

Farmer, C., Hosek, S., & Adamson D. (2016). Balancing Demand and Supply for Veterans' Health Care. *Rand Corporation*, 6(1). https://www.rand.org/pubs/periodicals/health-quarterly/issues/v6/n1/12.html

Gitterman, A. and Heller N. (2011). Integrating Social Work Perspectives and Models with Concepts, Methods and Skills with Other Professions' Specialized Approaches. *Clinical Social Work Journal 39*, 204-211

Grubbs, K. M., Abraham, T. H., Pyne, J. M., Greene, C. J., Teng, E. J., and Fortney, J. C. (2022). Enhancing Problem-Solving Therapy with Smartphone Technology: A Pilot Randomized Controlled Trial. *Psychiatric Services*, *73*(7), 805–808

Harper, K. L., Thompson-Hollands, J., Keane, T. M., & Marx, B. P. (2022). Mental health treatment utilization and relationship functioning among male and female OEF/OIF veterans. *Psychological Services*, *19*(3), 597–603

Harvey M.R. (1996). An ecological view of psychological trauma and trauma recovery. *Journal of Traumatic Stress*, *9(1),* 3-23

Herbert M., Leung D., Pittman J., Floto E., & Afari N. (2017). Race/ethnicity, psychological resilience, and social support among OEF/OIF combat veterans. *Psychiatry Research, 265,* 265-270.

Hester, R. (2017). Lack of access to mental health services contributing to the high suicide rates among veterans. *International Journal of Mental Health Systems*, *11*(1), 1–4.

Hickox, S.A. & Hall, A. (2018). Atypical Accommodations for Employees with Psychiatric Disabilities. *American Business Law Journal, 55(3),* 537-594.

Hollis B., Kelley M.L., & Bravo A. (2017). Pre-military abuse, mental health, and hazardous alcohol use among military personnel. *Journal of Substance Use, 22(2),* 187-191.

Iribarren, J., Prolo, P., Neagos, N., Chiappelli, F. (2005). Post-Traumatic Stress Disorder: Evidence-Based Research for the Third Millennium. *Evidence Based Complement Alternative Medicine, 2(4),* 503-512.

Johnson E.M. & Possemato K. (2021). Problem recognition and treatment beliefs relate to mental health utilization among veteran primary care patients. *Psychological Services*, *18(1),* 11-22.

Jordan B.K., Marmar C.R., Fairbank J.A., Schlenger W.E., Kulka R.A., Hough R.L., & Weiss D.S. (1992). Problems in Families of Male Vietnam Veterans with Posttraumatic Stress Disorder. *Journal of Consulting and Clinical Psychology, 60(6)*, 916-926.

Kaysen D., Schumm J.., Pedersen, E., Seim R., Bedard-Gilligan, M., & Chard, K. (2014). Cognitive Processing Therapy for veterans with comorbid PTSD and Alcohol use disorders. *Addictive Behaviors 39,* 420–427

Kershaw, K., Lewis, T., Diez Roux, A., Jenny N.S., Liu, K., Penedo, F., & Carnethon, M.R. (2016). Self-reported experiences of discrimination and inflammation among men and women: The multi-ethnic study of atherosclerosis. *Health Psychology, Vol 35(4),* 343-350.

Koss, M. P. & Harvey, M. R (1991). *The rape victim: Clinical and commune interventions.* Newbury Park, CA: Sage

Kukla, M., Arellano-Bravo, C., & Lysaker, P. H. (2022). "I'd Be a Completely Different Person if I Hadn't Gone to Therapy": A Qualitative Study of Metacognitive Therapy and Recovery Outcomes in Adults with Schizophrenia. *Psychiatry: Interpersonal & Biological Processes*, *85*(3), 259–269.

Lakeman R, McGowan P, MacGabhann L, Parkinson M, Redmond M, Sibitz I, Stevenson C, Walsh J. (2012). A qualitative study exploring experiences of discrimination associated with mental-health problems in Ireland. *Epidemiol Psychiatric Science, 21(3*):271-9

Lazarus, R. S. (1997). Acculturation isn't everything. *Applied Psychology, 46*, 39–43.

Lee M., Bhimla A., Lu W., & Ma G.X. (2021). Correlates of Mental Health Treatment Receipt Among Asian Americans with Perceived Mental Health Problems. *Journal of Behavioral Health Services & Research. 48(2*), 199-212

Lee S. & Matejkowski J. (2012) Mental health service utilization among noncitizens in the United States: findings from the National Latino and Asian American Study. *Administration and Policy in Mental Health and Mental Health Services Research. 39*, 406–418

Lev-Wiesel R. (2017). Intergenerational Transmission of Trauma across Three Generations: A Preliminary Study. *Qualitative Social Work*, *6(1),* 75-94

Li M. (2015). Pre-migration Trauma and Post-migration Stressors for Asian and Latino American Immigrants: Transnational Stress Proliferation. *Social Indicators Research, 129(1),* 47-59

Li M. & Anderson J.G. (2016) Pre-migration Trauma Exposure and Psychological Distress for Asian American Immigrants: Linking the Pre- and Post-migration Contexts. *Journal Immigrant Minority Health*, *18(1)*, 728–739

Liu, S., He, L., Wei, M., Du, Y., & Cheng, D. (2022). Depression and anxiety from acculturative stress: Maladaptive perfectionism as a mediator and mindfulness as a moderator. *Asian American Journal of Psychology*, *13*(2), 207–216.

Loo C.M., Lim B., Koff G., Morton R. & Kiang P. (2007). Ethnic-Related Stressors in the War Zone: Case Studies of Asian American Vietnam Veterans, *Military Medicine*, 172(9), 968–971

Lozano, A., Cervantes, R. C., Estrada, Y., & Prado, G. (2022). Impacts of Acculturative, Parenting, and Family Stress on US Born and Immigrant Latina/o/x Parent's Mental Health and Substance Use. *Prevention Science: Official Journal of the Society for Prevention Research*, 1–11.

Merriam-Webster (n.d.). In *Merriam-Webster.com dictionary*. https://www.merriam-webster.com/dictionary/documentation

Meyer O.L., Zane N. (2013). The Influence of Race and Ethnicity in Clients' Experiences of Mental Health Treatment. *J Community Psychol*. *41(7*): 884-901

Miller, M. B., Monk, J. K., Flores, L. Y., Everson, A. T., Martinez, L. D., Massey, K., Blanke, E. M., Dorimé-Williams, M. L., Williams, M. S., McCrae, C. S., & Borsari, B. (2022). Impact of discrimination and coping on Veterans' willingness to seek treatment for physical and mental health problems. *Psychology of Addictive Behaviors*

Muller J., Ganeshamoorthy S., & Myers J. (2017). Risk factors associated with posttraumatic stress disorder in US veterans: A cohort study. *Plos One*, *12*(7), 1-9.

National Association of Social Workers. (2017). NASW code of ethics. https://www.socialworkers.org/About/Ethics/Code-of-Ethics/Code-of-Ethics-English

Ngai, M. (1999). The Architecture of Race in American Immigration Law: A Reexamination of the Immigration Act of 1924. *Journal of American History, 86(1)*, 67–92.

Office of Research & Development (2021) https://www.research.va.gov/funding/

Orme, J.G., & Combs-Orme, T. (2009) *Multiple regression with discrete dependent variables.* Oxford University Press

Parsons J., Kehle T., & Owen S. (1990). Incidence of behavior problems among children of Vietnam war veterans. *School Psychology International*, *11*(4), 253-259

Pew Research Center. (2019). Facts on U.S. immigrants, 2017. https://www.pewresearch.org/hispanic/2019/06/03/facts-on-u-s-immigrants/

Post-Traumatic Stress Disorder and the ADA (2022). National Law Review 8(15).

https://www.natlawreview.com/article/post-traumatic-stress-disorder-and-ada

Rogers-Sirin, L. (2013). Segmented assimilation and attitudes toward psychotherapy: A moderated mediation analysis. *Journal of Counseling Psychology, 60*(3), 329–339

Romero A. & Roberts R. (2003). Stress Within a Bicultural Context for Adolescents of Mexican Descent. *Cultural Diversity and Ethnic Minority Psychology, Vol 9(2),* 171–184.

Ross, M. (2020). Harnessing Technology for the Social Good: Empowering Consumers with Immediate Feedback and Self-Directed Means of Care to Address Affordability, Access, and Stigma in Mental Health. *Health & Social Work*, *45*(2), 135–137.

Rubin, A. & Babbie, E. (2016). *Research methods for social work 9th. edition,* Empowerment Series. Brooks/Cole.

Sangalang C., Becerra D., Mitchell F., Lechuga-Peña S., Lopez K., Kim, I. (2019). Trauma, Post-Migration Stress, and Mental Health: A Comparative Analysis of Refugees and Immigrants in the United States. *Journal of Immigration Minor Health. 21(5),* 909-91.

Senturk, O. S., & O'Neil, L. G. (2004). Noncitizens in the US military. Calhoun: The NPS Institutional Archive

Shea, M., Wong, Y. J., Nguyen, K. K., & Gonzalez, P. D. (2019). Barriers to Seeking Mental Health Counseling Scale. *Journal of Counseling Psychology, Vol 66(5),* 626-639

Shrader, B. (2020). *Fight to Live, Live to Fight.* State University of New York Press.

Silvestrini, M., Indresano, J., Zeliadt, S. B., & Chen, J. A. (2021). “There’s a huge benefit just to know that someone cares:” a qualitative examination of rural veterans’ experiences with TelePain. *Boston Medical Center Health Services Research*, *21*(1), 1–8

Song, J. E., Ngo, N. T., Vigneron, J. G., Lee, A., Sust, S., Martin, A., & Yuen, E. Y. (2022). CHATogether: a novel digital program to promote Asian American Pacific Islander mental health in response to the COVID-19 pandemic. *Child & Adolescent Psychiatry & Mental Health*, *16*(1), 1–15

Smith-Acuna, S. (2011). *Systems theory in action*. Hoboken, New Jersey: John Wiley and Sons.

Spoont M., Nelson D., Murdoch M., Rector T., Sayer N., Nugent S., & Westermeyer, J. (2014). Impact of treatment beliefs and social network encouragement on initiation of care by VA service users with PTSD. *Psychiatric Services 65(5),* 654-62.

Spoont M., Nelson D., Kehle-Forbes S., Meis L., Murdoch M., Rosen C., Sayer, N. (2021) Racial and ethnic disparities in clinical outcomes six months after receiving a PTSD diagnosis in Veterans Health Administration. *Psychological Services Nov;18(4),* 584-594

Stroink, M. & Lalonde R. (2010). Bicultural Identity Conflict in Second-Generation Asian Canadians. *The Journal of Social Psychology, 149* (1), 44-65

Suárez-Orozco, C., Abo-Zena, M. M., & Marks, A. K. (2015). *Transitions: The development of children of immigrants*. NYU Press.

Sullivan, M. (2019*). Earned Citizenship.* Oxford: Oxford Scholarship Online

Swick, D., & Powers, J. D. (2018). Increasing Access to Care by Delivering Mental Health Services in Schools: The School-Based Support Program. *School Community Journal*, *28*(1), 129–144.

Symptoms of PTSD (2015). http://www.ptsd.va.gov/public/PTSD-overview/basics/symptoms_of_ptsd.asp

Tabachnick B.G. & Fidell, L.S. (2013). *Using Multivariate Statistics, 7th ed*. Pearson. Boston, MA.

Taber, K.S. (2018). The Use of Cronbach’s Alpha When Developing and Reporting Research Instruments in Science Education. *Research in Science Education, 48*, 1273–1296 (2018)

Tsai, J. & Kong, G. (2012). Mental Health of Asian American and Pacific Islander Military Veterans: Brief Review of an Understudied Group. *Military Medicine*, *177(11),* 1438–1444

Twintoh R.F., Anku P.J., Amu H., Darteh E., Korsah K.K. (2021) Childcare practices among teenage mothers in Ghana: a qualitative study using the ecological systems theory. *BMC Public Health 21(1)*, 16

Tummala-Narra, P. (2021). *Trauma and Racial Minority Immigrants: Turmoil, Uncertainty, and Resistance (Cultural, Racial, and Ethnic Psychology).* American Psychological Association

Turner, F.J. (2017). *Social work treatment: Interlocking theoretical approaches*, *6th ed*. Oxford Univ. Press.

Ursano RJ, Wang J, Fullerton CS, Ramsawh, H., Gifford, R., Russell, D., Cohen, G., Sampson, L., & Galea, S. (2018) Post-deployment Mental Health in Reserve and National Guard Service Members: Deploying with or Without One's Unit and Deployment Preparedness. *Military Medicine*. *183*, 51-58

Vázquez A., Alvarez M., Flores C., Vera J., Barrett T., & Rodríguez, M. (2021). Youth mental health service preferences and utilization patterns among Latinx caregivers. *Children and Youth Services Review, 10(7),* 1-18.

Von Bertalanffy, L. (1950). An outline of general system theory. *British Journal for the Philosophy of science*

Wendt, D. C., Huson, K., Albatnuni, M., & Gone, J. P. (2022). What are the best practices for psychotherapy with indigenous peoples in the United States and Canada? A thorny question. *Journal of Consulting and Clinical Psychology*.

Whealin J., Nelson D., Stotzer R., Guerrero A., Carpenter M., & Pietrzak, R. (2015). Risk and resilience factors associated with posttraumatic stress in ethno-racially diverse National Guard members in Hawaii. *Psychiatry Research, 227(2-3),* 270-277.

Williston S., Roemer L., & Vogt D.S. (2019) Cultural and service factors related to mental health beliefs among post-9/11 veterans. *International Journal of Social Psychiatry*. *65(4)*, 313-321.

Workers, N. A. (2017) NASW Code of Ethics (Guide to the Everyday Professional Conduct of Social Workers). Washington, DC: NASW.

Yu, S. H., Brookman-Frazee, L., Kim, J. J., Barnett, M. L., Wright, B., & Lau, A. S. (2022). Therapist adaptations to evidence-based practices and associations with implementation outcomes in child therapy sessions. *Journal of Consulting and Clinical Psychology*, *90*(1), 39–50.

Zong, J. & Batalova, J. (2019). Immigrant Veterans in the United States. https://www.migrationpolicy.org/article/immigrant-veterans-united-states-2018

Appendix A: Survey Questions

Demographic Questions

Please answer the following questions.

1. **What year were you born?**

(Please fill in)

2. **Were you born outside the USA?**

Yes No

3. **If you answered yes, which country were you born in?**

(Please fill in)

4. **At what age did you enter the USA?**

(Please fill in)

5. **What is your ethnic background?**

American Indian or Alaska Native
South Asian
Asian
Black or African American
Hispanic, Latino, or Spanish Origin
Middle Eastern or North African
Native Hawaiian or Other Pacific Islander
White
Other racial, ethnic, or other identity: _______________
I prefer not to disclose

6. **Were one of your parents born outside of the USA?**

Yes, one parent Yes, both parents No

7. **If you answered yes, which country or countries?**

(Please fill in)

8. What years did you serve in the military?

(Please fill in)

9. Do you have access to therapists who you feel can understand your cultural background?

Yes No

10. Do your friends and family support you seeking mental health treatment?

Yes No

11. Were you ever deployed during your military service?

Yes No

12. Have you ever struggled with any mental health issues such as anxiety, depression, or PTSD?

Yes No

13. Have you ever sought mental health treatment (voluntarily, not ordered by court or superiors)?

Yes No

Everyday Discrimination

First set of instructions:

Please answer the following questions and indicate how often you would encounter this kind of treatment prior to your military service.

Second set of instructions:

Please answer the following questions and indicate how often you would encounter this kind of treatment during your military service.

Were you treated with less courtesy than other people?

Almost every day	At least once a week	A few times a month	A few times a year
1	2	3	4
Less than once a year	Never		
5	6		

Were you treated with less respect than other people?

Almost every day	At least once a week	A few times a month	A few times a year
1	2	3	4
Less than once a year	Never		
5	6		

Did you receive poorer service than other people at restaurants or stores?

Almost every day	At least once a week	A few times a month	A few times a year
1	2	3	4
Less than once a year	Never		
5	6		

Did people act as if they thought you were not smart?

Almost every day At least once a week A few times a month A few times a year

1 2 3 4

Less than once a year Never

5 6

Did people act as if they were afraid of you?

Almost every day At least once a week A few times a month A few times a year

1 2 3 4

Less than once a year Never

5 6

Did people act as if they thought you were dishonest?

Almost every day At least once a week A few times a month A few times a year

1 2 3 4

Less than once a year Never

5 6

Did people act as if they think they were better than you?

Almost every day At least once a week A few times a month A few times a year

1 2 3 4

Less than once a year Never

5 6

Were you called names or insulted?

Almost every day At least once a week A few times a month A few times a year

1 2 3 4

Less than once a year Never

5 6

Were you threatened or harassed?

Almost every day At least once a week A few times a month A few times a year

1 2 3 4

Less than once a year Never

5 6

Lifetime Discrimination Scale

First set of instructions:

Please answer the following questions and indicate how often you would encounter this kind of treatment prior to your military service.

Second set of instructions:

Please answer the following questions and indicate how often you would encounter this kind of treatment during your military service.

Do you think you have ever been unfairly fired or denied a promotion?

Yes No

If you answered "yes," please indicate the reason why.

Race/Ethnicity	Gender	Religion	Physical Appearance	Immigrant Status	Other
1	2	3	4	5	6

For unfair reasons, do you think you have ever not been hired for a job?

Yes No

If you answered "yes," please indicate the reason why.

Race/Ethnicity	Gender	Religion	Physical Appearance	Immigrant Status	Other
1	2	3	4	5	6

Have you ever been unfairly stopped, searched, questioned, physically threatened or abused by the police?

Yes No

If you answered "yes," please indicate the reason why.

Race/Ethnicity	Gender	Religion	Physical Appearance	Immigrant Status	Other
1	2	3	4	5	6

Have you ever been unfairly discouraged by a teacher or advisor from continuing your education?

Yes No

If you answered "yes," please indicate the reason why.

Race/Ethnicity	Gender	Religion	Physical Appearance	Immigrant Status	Other
1	2	3	4	5	6

Have you ever been unfairly prevented from moving into a neighborhood because the landlord or a realtor refused to sell or rent you a house or apartment?

Yes No

If you answered "yes," please indicate the reason why.

Race/Ethnicity	Gender	Religion	Physical Appearance	Immigrant Status	Other
1	2	3	4	5	6

Have you ever moved into a neighborhood where neighbors made life difficult for you or your family?

Yes No

If you answered "yes," please indicate the reason why.

Race/Ethnicity	Gender	Religion	Physical Appearance	Immigrant Status	Other
1	2	3	4	5	6

Bicultural Stressors Scale

Please indicate how stressful the following experiences have been for you. If you have never had the experiences listed, please mark #5 (does not apply).

Please fill in only one for each item.

1. I have been treated badly because of my accent.

Not at all stressful	A little bit stressful	Quite a bit stressful	Very stressful	Does not apply
1	2	3	4	5

2. Because of family obligations I can't always do what I want.

Not at all stressful	A little bit stressful	Quite a bit stressful	Very stressful	Does not apply
1	2	3	4	5

3. I have worried about family members or friends having problems with immigration.

Not at all stressful	A little bit stressful	Quite a bit stressful	Very stressful	Does not apply
1	2	3	4	5

4. I have had problems at school because of my poor English.

Not at all stressful	A little bit stressful	Quite a bit stressful	Very stressful	Does not apply
1	2	3	4	5

5. I do not feel comfortable with people whose culture is different from mine.

Not at all stressful	A little bit stressful	Quite a bit stressful	Very stressful	Does not apply
1	2	3	4	5

6. I have felt pressure to learn my native language.

Not at all stressful	A little bit stressful	Quite a bit stressful	Very stressful	Does not apply
1	2	3	4	5

7. I have felt that I need to speak my native language better.

Not at all stressful	A little bit stressful	Quite a bit stressful	Very stressful	Does not apply
1	2	3	4	5

8. I have argued with my boyfriend/girlfriend over being too traditional.

Not at all stressful	A little bit stressful	Quite a bit stressful	Very stressful	Does not apply
1	2	3	4	5

9. My friends think I'm acting too "American."

Not at all stressful	A little bit stressful	Quite a bit stressful	Very stressful	Does not apply
1	2	3	4	5

10. My parents feel I do not respect older people the way I should.

Not at all stressful	A little bit stressful	Quite a bit stressful	Very stressful	Does not apply
1	2	3	4	5

11. I feel uncomfortable when others make jokes about or put down people of my ethnic background.

Not at all stressful	A little bit stressful	Quite a bit stressful	Very stressful	Does not apply
1	2	3	4	5

12 . I have argued with family members because I do not want to do some traditions.

Not at all stressful	A little bit stressful	Quite a bit stressful	Very stressful	Does not apply
1	2	3	4	5

13. I have had to translate/interpret for my parents.

Not at all stressful	A little bit stressful	Quite a bit stressful	Very stressful	Does not apply
1	2	3	4	5

14. I have felt lonely and isolated because my family does not stick together.

Not at all stressful	A little bit stressful	Quite a bit stressful	Very stressful	Does not apply

1 2 3 4 5

15. I have felt that others do not accept me because of my ethnic group.

Not at all stressful A little bit stressful Quite a bit stressful Very stressful Does not apply

1 2 3 4 5

16. I have had to help my parents by explaining how to do things in the U.S.

Not at all stressful A little bit stressful Quite a bit stressful Very stressful Does not apply

1 2 3 4 5

17. I feel like I can't do what most American kids do because of my parents' culture.

Not at all stressful A little bit stressful Quite a bit stressful Very stressful Does not apply

1 2 3 4 5

18. I feel that belonging to a gang is part of representing my ethnic group.

Not at all stressful A little bit stressful Quite a bit stressful Very stressful Does not apply

1 2 3 4 5

19. Sometimes I do not understand why people from a different ethnic background act a certain way.

Not at all stressful A little bit stressful Quite a bit stressful Very stressful Does not apply

1 2 3 4 5

20. Sometimes I feel that it will be harder to succeed because of my ethnic background.

Not at all stressful A little bit stressful Quite a bit stressful Very stressful Does not apply

1 2 3 4 5

Fit within Veterans Health Administration (VHA) Measure

Please indicate your perceptions of how you fit within the VHA, or VA, healthcare setting. Choose the response that BEST fits your perception.

My health care needs are very different from most veterans who use the VA for health care.

Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

I share similar health concerns with most VA users.

Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

My military experiences were very different from most veterans who use the VA for health care.

Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Most VA health care users have very different medical problems than I have.

Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

I have a lot in common with most veterans who use the VA for health care.

Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Most VA health care users have more serious physical health problems than me.

Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Most VA health care users have more serious mental health problems than me.

Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

I fit in within the VA health care setting.

Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Barriers to Seeking Mental Health Counseling Scale BMHC

Version A: Those who have had symptoms or been diagnosed with PTSD

For the following questions, choose the response that BEST relates to your thoughts about seeking mental health treatment.

Version B: Those who have no symptoms or been diagnosed with PTSD

While you may not have, or had, any PTSD symptoms, these questions are intended for your thoughts about seeking mental health treatment. For the following questions, choose the response that BEST relates to your thoughts about seeking mental health treatment.

Negative Perceived Value

1. I don't think talking with a mental health counselor would be useful.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree
4	5	6

2. I like to count on my friends or family for support rather than reach out to a mental health counselor.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree

4	5	6

3. I think talking with a mental health counselor would only make me dwell on the problem without necessarily resolving the issue.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree
4	5	6

4. Because I have enough social support, I would not need to seek mental health counseling for my personal problems.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree
4	5	6

5. I don't like to rely on a mental health counselor to tell me what to do about my problems.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree
4	5	6

<u>Ingroup Stigma</u>

6. My family or significant other would judge me poorly if I disclose my problems to a mental health counselor.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree
4	5	6

7. Most people in my cultural group would not approve of my decision to seek mental health counseling.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree
4	5	6

8. My friends would think less of me if they knew I sought mental health counseling.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree
4	5	6

9. Seeking mental health counseling would bring shame to my family.

Strongly disagree Slightly Disagree Neutral

1 2 3

Slightly Agree Agree Strongly Agree

4 5 6

10. My family or significant other would not see me negatively if I share my problems with a mental health counselor.

Strongly disagree Slightly Disagree Neutral

1 2 3

Slightly Agree Agree Strongly Agree

4 5 6

Discomfort with Emotions

11. I would feel embarrassed about sharing my feelings with a mental health counselor.

Strongly disagree Slightly Disagree Neutral

1 2 3

Slightly Agree Agree Strongly Agree

4 5 6

12. I would feel nervous about showing the emotional side of me during the mental health counseling process.

Strongly disagree Slightly Disagree Neutral

1 2 3

Slightly Agree Agree Strongly Agree

4 5 6

13. I feel comfortable expressing my feelings to a mental health counselor.

Strongly disagree Slightly Disagree Neutral

1 2 3

Slightly Agree Agree Strongly Agree

4 5 6

14. It would be awkward for me to talk about my feelings in counseling.

Strongly disagree Slightly Disagree Neutral

1 2 3

Slightly Agree Agree Strongly Agree

4 5 6

15. I fear going to counseling because I don't like to reveal my feelings.

Strongly disagree Slightly Disagree Neutral

1 2 3

Slightly Agree Agree Strongly Agree

4 5 6

<u>Lack of Knowledge</u>

16. I don’t know how to where to seek mental health counseling.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree
4	5	6

17. I don’t know what kind of mental health counseling services are available.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree
4	5	6

18. I don’t know how mental health counseling works.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree
4	5	6

<u>Lack of Access</u>

19. I don’t have the time to seek or stay in counseling.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree
4	5	6

20. I have no financial means (e.g. insurance, money) to afford mental health counseling services.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree
4	5	6

21. I have too many responsibilities to other people (e.g. family, friends, significant others) that would prevent me from seeking mental health counseling.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree
4	5	6

22. I have too many academic or work-related obligations that would deter me from talking to a mental health counselor.

Strongly disagree	Slightly Disagree	Neutral

1 2 3

Slightly Agree Agree Strongly Agree

4 5 6

Cultural Barriers

23. I perceive that most mental health counselors would not be sensitive to issues related to my cultural identity.

Strongly disagree Slightly Disagree Neutral

1 2 3

Slightly Agree Agree Strongly Agree

4 5 6

24. I don't think that most mental health counselors would understand my cultural values.

Strongly disagree Slightly Disagree Neutral

1 2 3

Slightly Agree Agree Strongly Agree

4 5 6

25. I doubt that most mental health counselors have adequate training to explore issues related to my cultural identity.

Strongly disagree Slightly Disagree Neutral

1 2 3

Slightly Agree	Agree	Strongly Agree
4	5	6

26. I don't think culture would be an obstacle to my seeking help from a mental health counselor.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree
4	5	6

27. I think that cultural differences between most mental health counselors and myself would be a barrier in counseling.

Strongly disagree	Slightly Disagree	Neutral
1	2	3
Slightly Agree	Agree	Strongly Agree
4	5	6

Appendix B: Letter to Administrator of veteran groups

Hello,

My name is Howard Chi, and I am a doctoral student at Yeshiva University. I am currently conducting a study about the rates of, and barriers for, seeking mental health treatment from first- and second- generation immigrant veterans. The goal of this research would be to help gain a better understanding of this understudied group and create curated outreach programs to seek mental health treatment services and provide treatment modules aimed specifically at this population. The reason I chose this topic is that this subgroup of veterans often gets overlooked in studies surrounding mental health. As an Air Force veteran and I am a child of immigrants myself, I see firsthand how this group of veterans can benefit from this research.

The Institutional Review Board commissioned by Yeshiva University has given permission to conduct the research in this study. An informed consent is attached at the beginning of the survey which explains the potential participant's rights and an explanation of the study. The contents and answers of this survey are totally anonymous and should take about 20 minutes to complete. The survey is in multiple choice format.

Once a participant finishes their survey, they will be entered into a raffle. Once the study is complete, there will be eight people chosen and will receive a $25 gift card from Amazon.

If you would be so kind to disperse this study, please email me at Hchi@mail.yu.edu and I will provide a separate letter and a link to the survey. At which point, you can post this to wherever your members can have access to it, email it directly to your members, or provide their emails to me and I can dispense the survey directly to them.

If you have any questions, please let me know. Thank you for so much for your time and assistance. Have a wonderful day.

Sincerely,

Howard Chi, MSW

(510) 316-2876

Hchi@mail.yu.edu

Appendix C: Letter to Potential Participants

Dear Veteran,

My name is Howard Chi, and I am a doctoral student at Yeshiva University. I'm conducting a study to better understand the barriers first- and second- generation immigrant veterans face when they experience mental health symptoms such as depression, anxiety, and PTSD. The reason I chose this topic is that this subgroup of veterans already faces struggles than other groups don't always have to face. As an Air Force veteran and a child of immigrants myself, I see firsthand how this group of veterans can benefit from this research.

The survey should take about 30 minutes to complete. An informed consent is attached at the beginning of the survey which explains your rights and an explanation of the study. Your participation is completely voluntary, and you can stop at any time. Your responses to this survey will have no impact on your standing with this veteran group or the services that you receive.

To qualify for this study:

1) You are **either**:

A First-generation immigrant: An individual who was born outside of the United States

OR

A Second-generation immigrant: An individual who has at least one parent (or caregiver) who immigrated to the United States from another country.

AND

2) a Veteran who served in the US Army, Navy, Marine Corps, Air Force, and Coast Guard, including their Reserve components.

While I can see whether you have finished the survey, the contents and answers of your survey are totally anonymous and confidential and cannot be traced back to you. Once you are finished with your survey, you will be entered into a raffle. Once the study is complete, there will be eight people chosen and will receive a $25 gift card at Amazon. If you are chosen, you will be contacted via email to claim your prize.

If you have any questions, please let me know. Thank you for so much for your time, participation, and service to this nation. If you have any questions, please feel free to contact the student researcher, Howard Chi, or the research chair, Dr. Kerry Dunn, at the contact information below. Yeshiva University does not have any information regarding your identity, so you do need to identify yourself. Have a wonderful day.

Howard Chi, MSW

(510) 316-2876

Hchi@mail.yu.edu

Kerry Dunn, JD, MSW, PhD

(646) 592-6890

Kerry.Dunn@mail.yu.edu

Sincerely,

Howard Chi, MSW

Appendix D: Informed Consent

This informed consent will be provided at the beginning of the survey:

Thank you for considering participating in this study. I, the researcher, am interested in the study of first- and second-generation immigrant veterans and their behavior in seeking PTSD treatment.

To qualify for this study:

1) You are **either:**

A First-generation immigrant: An individual who was born outside of the United States

OR

A Second-generation immigrant: An individual who has at least one parent (or caregiver) who immigrated to the United States from another country.

AND

2) a Veteran who served in the US Army, Navy, Marine Corps, Air Force, and Coast Guard, including their Reserve components.

This study is being conducted by Howard Chi, a PhD. Student at Yeshiva University's Wurzweiler School of Social Work.

Participation in this study will involve answering a series of questions regarding your thoughts about seeking mental health treatment. You will also be asked to respond to some basic, non-identifying information. There will be a link to the survey and should take about 30 minutes to complete. Your participation is completely voluntary, and you can stop at any time. There may

be a few multiple-choice questions that ask about your status in seeking mental health treatment. If this triggers you in anyway, please contact the VA mental health 24-hour crisis line at 1-800-273-8255.

The risks involved for participation in this study are minimal. While I can see whether you have finished the survey, **the contents and answers of your survey are totally anonymous and confidential and cannot be traced back to you**. The researcher will also not be sharing any information with facility or university administrators. The data collected will be stored on the researcher's password protected computer. Only the research advisor and/or public officials presenting legal authority have access to the survey responses. While individual responses are anonymous, your completed data cannot be withdrawn from the study after it has been collected.

While there are no direct benefits to participating in this study, this data could lead to improved outreach and mental health treatment programs for first- and second-generation American veterans. Study incentives include a chance to win a $25 gift card from Amazon. Once the study is complete, right participants will be chosen at random to receive a card.

The ethics of this research project were reviewed and approved by the Institutional Review Board commissioned by Yeshiva University. If you believe there has been any infringement of your rights as a research participant, you should contact the IRB at clientservices@wcgirb.com or at 855-818-2289.

To participate in the study, please click on the 'yes, I consent' link on the bottom of this email. Once you have consented, you can click on the survey link right below. If you would like additional information about the research study or your rights as a participant, please contact: Howard Chi at Hchi@mail.yu.edu. Thank you and have a wonderful day.

- ○ Yes, I consent
- ○ No, I do not consent

Sincerely,

Howard Chi, MSW

Appendix E: CITI Ethics Training Completion Certificate

Completion Date 09-Jun-2022
Expiration Date 08-Jun-2024
Record ID 49483087

This is to certify that:

Howard Chi

Has completed the following CITI Program course:

Not valid for renewal of certification through CME.

Human Research
(Curriculum Group)
Group 2. SOCIAL / HUMANISTIC / BEHAVIORAL RESEARCH
(Course Learner Group)
1 - Basic Course
(Stage)

Under requirements set by:

WCG IRB

Verify at www.citiprogram.org/verify/?wf3722ec6-5537-4ac6-a1d2-968a305349f6-49483087

Appendix F: VIF Chart

Variable	VIF	1/VIF
During everyday	4.17	0.239744
During lifetime	3.49	0.286506
Prior everyday	3.15	0.316972
Prior lifetime	2.95	0.339432
Discomfort	2.45	0.408688
BSSCOR	2.31	0.432118
Stigma	2.24	0.446024
Cultural Barriers	1.99	0.503138
Lack of Access	1.78	0.562735
Negative value	1.63	0.614685
Knowledge	1.47	0.682169
Access to therapist	1.28	0.782689
Fit within VHA	1.18	0.846073
Encouragement	1.17	0.854236
Mean VIF	2.23	