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The Relationship Between Acculturation and Depression With Burmese Refugees

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Walden University

College of Social and Behavioral Sciences

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Gunnar G. Newman

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Walden University
2022

Abstract

The Relationship Between Acculturation and Depression With Burmese Refugees

by

Gunnar G. Newman

MA, Walden University, 2017

BS, University of Maryland University College, 2012

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

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Abstract

Acculturation and acculturative stress have been linked to depression among immigrants and refugee populations. Asian Americans and Asian American subgroups are underrepresented and have been neglected in research. The purpose of this quantitative study was to measure the relationship between acculturation and depression with length of time in the United States and acculturative stress as mediating variables among the understudied Asian American subgroup, Burmese refugees resettled in the United States. Unidimensional and bidimensional models of acculturation form the theoretical framework for this study. Three instruments, the Suinn-Lew Asian Self Identity Acculturation scale, the Riverside Acculturation Stress Inventory, and the Beck Depression Inventory II were used to measure degree of acculturation, level of acculturative stress, and level of depression among Burmese refugees ($N = 50$) resettled in San Antonio, Texas. Multiple regression was used to address two research questions examining whether length of time in the United States moderated the influence of acculturation on depression of Burmese refugees and whether acculturative stress mediated the influence of acculturation on depression of Burmese refugees. The results did not show a significant relationship between acculturation and depression. Controlling for acculturative stress did not affect the relationship between acculturation and depression. The results did however indicate significant relationships between length of time in the United States and acculturation, and between acculturation and acculturative stress. Implications for positive social change include informing public policy of study results to identify needs to develop programs for this specific group of individuals.

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Dedication

I dedicate this dissertation to my parents Luis and Shirley Newman. I wish they could have seen what I have been able to achieve. I dedicate this dissertation also to my daughter Alicia Newman who constantly motivates me in my achievements.

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Table of Contents

List of Tables	v
List of Figures	vi
Chapter 1: Introduction to the Study.....	1
Introduction.....	1
Background	4
Statement of the Problem.....	6
Purpose of the Study	7
Research Questions and Hypotheses	8
Theoretical Framework.....	8
Nature of the Study	9
Definition of Key Terms.....	10
Assumptions.....	12
Scope and Delimitations	13
Limitations	13
Significance.....	14
Summary	14
Chapter 2: Literature Review	16
Introduction.....	16
Research Strategies	18
Depression among Immigrants and Refugees.....	19
Depression Among Asian Americans.....	25

Burmese Refugees	27
Premigration Experience.....	31
Migration.....	32
Post Migration.....	34
Depression Among Burmese Refugees	35
Acculturation Theories.....	36
Unidimensional Model.....	38
Bidimensional Model.....	39
Multidimensional Model.....	40
Acculturation and Depression.....	41
Acculturative Stress	42
Nature of Society	43
Type of Acculturating Group.....	43
Mode of Acculturation.....	44
Demographic, Social, and Psychological Characteristics.....	44
Summary of the Literature Review.....	44
Chapter 3: Research Method.....	47
Introduction.....	47
Purpose.....	47
Research Questions.....	48
Research Hypotheses	48
Research Design and Approach.....	49

Methodology	50
Population and Sample	50
Sample Size.....	51
Participants.....	52
Instrumentation and Measures	52
Demographic Information Form	53
Suinn-Lew Asian Self Identity Acculturation Scale.....	53
Riverside Acculturation Stress Inventory	54
Beck Depression Inventory II.....	55
Research Procedure.....	56
Data Storage and Analysis	56
Chapter 4: Results.....	58
Results	58
Demographics	59
Measures	59
Suinn-Lew Asian Self Identity Acculturation Scale.....	59
Riverside Acculturation Stress Inventory	60
Beck Depression Inventory II.....	60
Analysis.....	61
Summary of Findings.....	64
Figure 1	69
Figure 2.....	70

Figure 3	71
Figure 4	72
Chapter 5: Discussion, Conclusions, and Recommendations	73
Introduction.....	73
Interpretations of Findings.....	75
Limitations of Study	77
Recommendations.....	79
Implications.....	80
Conclusions.....	81
References.....	83
Appendix A: Demographic Questionnaire.....	104
Appendix B: Suinn-Lew Asian Self Identity Acculturation Scale	105
Appendix C: Riverside Acculturation Stress Inventory.....	114
Appendix D: Beck Depression Inventory	117
Appendix E: Permission to Use the Suinn-Lew Asian Self Identity Scale.....	118
Appendix F: Permission to Use the Riverside Acculturation Stress Scale.....	119
Appendix G: Permission to Use the Beck Depression Inventory II	120

List of Tables

Table 1	Descriptive Statistics for Study Population.....	65
Table 2	Frequency and Percentages of Demographic Variables.....	66
Table 3	Means of Acculturation, Acculturative Stress, and Depression Scale Scores	67
Table 4	Means, Standard Deviations, and Correlations	68
Table 5	Results for the multiple regression model.....	68
Table 6	Means, Standard Deviations, and Intercorrelations	69

List of Figures

Figure 1 Scatterplot for Relation Between Acculturation and Depression, With R^2 69

Figure 2 Scatterplot for Relation Between Years in United States and Depression, With R^2 70

Figure 3 Scatterplot for Relation Between Acculturation and Acculturative Stress, With R^2 71

Figure 4 Scatterplot for Relation Between Acculturative Stress and Depression, With R^2 72

Chapter 1: Introduction to the Study

Introduction

Between October, 2001, and September, 2021, there have been 181,136 Burmese refugees who have migrated and resettled in the United States (Refugee Processing Center, 2021). While comprising only 0.03% of the United States population, this group represented 23% of resettled refugees and was the largest refugee group admitted to the United States between 2007 and 2017 (Zong & Batalova, 2017). Many of these individuals resided in refugee camps in Thailand or Malaysia for several years prior to completing their journey to the United States (Cardozo et al., 2004). Moreover, many of these individuals suffered traumas or other violations to human rights that have afforded them refugee status. Similar to the legal distinctions between immigrant and refugee, studies have shown there are also differences in mental health issues across these two groups. While immigrants have a prevalence of depression of about 20%, refugees have a prevalence rate of 40% (Lindert et al., 2009). This increased prevalence rate of depression among refugees has been attributed to several factors including premigration “push” factors, migration journey experiences, and postmigration experiences. When people of one culture make contact with a new host culture, they inevitably undergo a process of adjustment called *acculturation* (Berry 1980, 1997; Berry & Sam, 2016; Redfield, et al., 1936).

The process of acculturation includes variables such as society of origin, society of settlement, and phenomena that exist prior to and during the course of acculturation (Berry, 1997). The acculturation process was initially defined as a unidirectional

(unidimensional) process that equated to assimilation, in which the heritage culture was lost while the host culture took over (Schwartz & Unger, 2017; Trimble, 2003). This was a zero-sum process. Acculturation is currently acknowledged to be a bidimensional process in which both heritage and host cultures can coexist at different levels (Schwartz & Unger, 2017; Trimble, 2003). Higher degrees of acculturation generally correlate with increased mental health stability and well-being, while lower levels of acculturation often correlate with increased rates of depression and anxiety (Berry, 1997, 2006; Suinn, 2010). This concept that degree of acculturation is positively correlated with well-being and negatively correlated with psychological illness is vastly supported in literature; however, several recent studies have shown this finding to be inconsistent. Researchers have also found higher acculturation can lead to increased levels of acculturative stress (Wong & Miles, 2014). The degree of acculturation an individual has acquired is not adequate, in isolation, to understand its effect on depression.

Acculturative stress is a combination of conflicts and difficulties in cultural differences in attitudes, behaviors, and cognitions between heritage and host cultures. Sam and Berry (2016) pointed out that acculturative stress is not inherent to the acculturation process and explained that adaptive changes may be easy or become problematic. The authors elaborated that problematic acculturative stress can manifest as anxiety or depression (Sam & Berry, 2016). Suinn (2010) argued that acculturative stress may serve as a mediating pathway for depression among refugee and immigrant groups. It has also been argued that acculturative stress, not the acculturation process itself, directly impacts mental health (Aldwin, 2007; Lazarus, 1997; Romero & Pina-Watson,

2017). In sum, acculturation and acculturative stress have both been implicated as factors impacting immigrant and refugee mental health, including depression. However, John et al. (2012) identified a gap in the existing literature and recommended a need for further research to explore the mechanisms by which acculturative stress may negatively influence overall mental health.

Asian Americans, particularly Asian American subgroups, compose one of the most widely understudied ethnic groups with respect to a variety of refugee and immigration issues (Benuto et al., 2014; Sue et al., 2012). Burmese refugees are an Asian American subgroup that faces numerous challenges assimilating and accommodating to American culture. Language fluency, education, employment, and household income challenge their successful acculturation or integration into American society (Capps et al., 2015).

Currently, there are no existing studies that focus on the issues of acculturation, acculturative stress, and depression of resettled Burmese refugees in the United States. In this study, I examined the roles of acculturation with acculturative stress as a mediator on levels of depression among the Asian American subgroup of resettled Burmese refugees. I incorporated existing knowledge on relationships between both levels of acculturation and acculturative stress on depression and applied it to a specific ethnic population, filling a research gap on an understudied population. Findings from this study will broaden the understanding of the relationship between length of stay in the United States, acculturative stress, and degree of acculturation on incidence of depression among the

Burmese refugee population resettled in the United States. Further, results from this study can also help to identify needs to develop programs for this specific group of individuals.

Background

There is an abundance of literature portraying immigrants and refugees as more susceptible to mental illness, and in particular anxiety and depression. Lindert et al. (2009) conducted a meta-analysis that indicated depression rates among immigrants at 20% while occurrence of depression rose to 40% among refugees. Lindert et al. (2009) argued that mental health of immigrants and refugees should be measured and approached separately as distinct categories from each other. The idea that increased acculturation improves mental health aligns with existing theories of acculturation, as both unidimensional and bidimensional theories have argued that increased degrees of acculturation reduce mental illness, anxiety, and depression among acculturating populations (Beiser, 1998; Berry, 1997). Hauck et al. (2014) explored cultural stressors and acculturation of Burmese, Bhutanese, and Iraqi refugees into American society. Specific to Burmese refugees, Hauck et al. (2014) found language proficiency and financial burdens contributing to acculturative stress, but also that the Burmese refugees felt resettlement expectations had been met and felt life was better than in Burma.

In addition to Burmese refugees being in a category distinct from other immigrant categories, Burmese refugees fall into another category as “Asian Americans.” John et al. (2012) explored and challenged the existence of the “health paradox” that postulates Asian immigrants have a reduced occurrence of *Diagnostic and Statistical Manual–4* (DSM-4, 1994) defined mental health disorders than their more affluent, U.S. born

counterparts. John et al. (2012) explored the relationship between nativity and the occupational class with the health of Asian Americans. Results indicated that the immigrant Asian American participants had lower rates of mental health disorders that met the DSM-4 threshold. In general, the existing literature supports the pattern that immigrating Asians have less depression than non-Asian immigrants in both the United States and Europe. The literature reviewed supports two competing patterns of depression when applied to the Asian American subgroup of Burmese refugees resettling in the United States. Specifically, on one hand refugees generally have more depression than other categories of immigrants, and on the other hand, Asian Americans tend to have less depression than other ethnic categories.

Historically, Asian Americans are underrepresented in research (Sue et al., 2012). However, when Asian Americans have been included in research, they are usually aggregated into the singular ethnic group: Asian American (Rhee, 2009; Suinn, 2009). Studies that aggregate different Asian American subgroups into a single category of Asian American distort the interpretation of data (Cummings et al., 2011; Suinn, 2009). Sue et al. (2012) suggested that more epidemiological studies need to be conducted to account for Asian American groups that have been inadequately sampled. The neglect of research specific to Asian Americans and Asian American subgroups results in inadequate development of sociopolitical policies and structures (Chan & Hune, 1995; Kim, Ahn, & Lam, 2009).

Though sparse, several articles can still be found on depression or acculturative stress among Asian Americans. Review of the existing research revealed that focus was

predominantly paid to larger Asian American subgroups such as Chinese, Japanese, Korean, Filipino, and Indian. Vietnamese and Hmong refugees were smaller Asian American subgroups in which considerable research has also been conducted. Overall, there was an absence of studies on acculturation, acculturative stress, and depression specific to Burmese refugees resettled in the United States.

Statement of the Problem

Level of acculturation impacts the psychological well-being of immigrants to a new host culture (Berry, 1997, 2006; Suinn, 2010). “Refugee” is a specific category within the immigrant population. The context of immigration (push versus pull factors) differentiates refugees from other (nonrefugee) immigrants. When compared with other categories of immigrants, refugees are identified as more likely to encounter mental health-related conditions such as depression, anxiety, and psychosomatic disorders (Lindert et al., 2009). While research generally supports the idea that higher degrees of acculturation improve psychological well-being, other research has also brought out inconsistencies to this assumption (Sue, 2002). Acculturative stress has been implicated with levels of depression among immigrant and refugee populations. Research on acculturative stress has produced inconsistent findings; some have correlated high acculturation to less acculturative stress and others have correlated increased acculturative stress with higher levels of acculturation.

Acculturation has been theorized as a unidimensional as well as a bidimensional process. Current studies of acculturation predominantly use the bidimensional theory of acculturation, recognizing that individuals can retain their heritage culture while learning

the new host culture. The unidimensional theory postulates a development shift from heritage culture to the host culture through assimilation. Conversely, the bidimensional theory argues people can acculturate while retaining varying levels of both heritage and host culture. Zhang and Tsai (2014) argued that different models may apply to different subgroups. No studies using either a unidimensional or bidimensional theory to measure degree of acculturation on resettled Burmese refugees in the United States were identified in the literature. Further, there was an absence of studies on the mediation effect of acculturative stress on mental illness in general, or depression specifically on resettled Burmese refugees in the United States that have been identified in the literature. Suinn (2009) specifically recommended research on mediating variables to acculturation on outcomes.

Purpose of the Study

The purpose of this study was to explore the relationship between (a) length of time in the United States, (b) level of acculturative stress, (c) degree of acculturation, and (d) level of depression in the Burmese refugee population. To understand this relationship, the approach of this study was quantitative. In this study I attempted to determine if the effect of acculturation on depression is significantly moderated by length of time in the United States. I additionally attempted to determine if the effect of acculturation on depression is partially or entirely transmitted by acculturative stress. I used standardized self-reported inventories that measure acculturation, acculturative stress, and depression in conjunction with a demographic survey to assess how

acculturation, acculturative stress, and length of time in the United States related to depression levels in Burmese refugees

Research Questions and Hypotheses

RQ1: Does length of time in the United States moderate the influence of acculturation on depression of Burmese refugees.

H₀₁: The length of time in the United States does not moderate the influence of acculturation on depression of Burmese refugees.

H₁₁: The length of time in the United States significantly moderates the influence of acculturation on depression of Burmese refugees.

RQ2: Does acculturative stress mediate the influence of acculturation on depression of Burmese refugees.

H₀₂: Acculturative stress does not significantly mediate the influence of acculturation on depression of Burmese refugees.

H₁₂: Acculturative stress significantly mediates the influence of acculturation on depression of Burmese refugees.

Theoretical Framework

There are currently two dominant models of acculturation; the unidimensional model and the bidimensional model (Kalibatseva et al. 2014; Zhang & Tsai, 2014). The unidimensional model assumes acculturation develops through a single continuum (Flannery et al., 2001). This model assumes acculturation is a gradual process of assimilation from the heritage culture to the receiving culture or dominant culture (Zhang & Tsai, 2014). Trimble (2003) wrote that many acculturation theories treat the terms

acculturation and assimilation interchangeably (Trimble, 2003). The bidimensional model assumes acculturation does not align with a single continuum, but rather individuals can identify with both their host and heritage cultures (Kalibatseva et al., 2014; Schwartz and Unger, 2017). In Berry's (1990) bidimensional theory of acculturation, acculturation is a process of two dimensions, contact with host culture and maintenance of one culture of origin, resulting in integrated, separated, assimilated, or marginalized individuals (Trimble, 2003; Zhang & Tsai, 2014). That is, individuals can identify with varying degrees with both host culture and culture of origin, and one does not replace the other. Zhang and Tsai (2014) argued that different models may apply to different Asian subgroups and even generations within an ethnic subgroup. Both models have been used to measure acculturation in the Asian American population, but none specific to the Burmese refugee population. Acculturative stress may be a significant mediating factor in the acculturation process (John et al., 2012; Suinn, 2010). These theoretical propositions are discussed further in Chapter 2. Depression has been reported high among Burmese refugees (Kim, 2018); however, I have identified no studies that correlate depression to levels of acculturation to this population.

Nature of the Study

The nature of this study was a predictive design using a quantitative approach. There is a paucity of literature on the occurrence of depression among Burmese refugees and how it relates to degree of acculturation among this group. A quantitative design was also appropriate to assess how degree of acculturation and length of stay in the United States influenced the level of reported depression in the Burmese refugee population. The

unidimensional model can be used to predict if lower rates of depression are based on longer times in the United States (Beiser, 1988). The bidimensional model can be used to predict if depression is lower in individuals with higher degrees of acculturation (Berry, 1997). This quantitative analysis will attempt to identify a predictive relationship between length of stay in the United States, acculturation level, and mediating effect of acculturative stress on depression of an understudied Asian American subgroup. A moderator and mediator model with simple and multiple regression was used to analyze data.

Definition of Key Terms

Acculturation: Acculturation is a term widely used in which various scholars have applied different definitions. For this study I operationally defined acculturation as a process in which individuals who have developed in one cultural context adapt to a new cultural context through migration (Berry, 1980, 1997). While researchers have generally acknowledged acculturation may occur at both the individual and societal level, acculturation in this study focuses on adaptive change at the individual level.

Acculturative Stress: Acculturative stress is one kind of general physiological or psychological stress attributed to stressors in the acculturation process that lead to a reduction in psychological, somatic, or social health status (Berry et al., 1987; Williams & Berry, 1991).

Burmese refugee: In this study, Burmese refers to all people from Burma, unless a specific ethnic group is mentioned. Burmese refugee refers to Burmese who have

resettled to the United States through the United Nations refugee resettlement program and meet the criteria of refugee designation under the U.S. Refugee Act.

Depression: Essential features of depression as defined by the DSM-5 (2013) are depressed mood or lack of interest or pleasure in all activities. Other symptoms associated with depression include weight loss, insomnia or hypersomnia, fatigue, feelings of worthlessness or guilt, inability to concentrate or make decisions, and thoughts of death or suicidal ideation (DSM-5, 2013). Research on depression of immigrant and refugee groups have used a variety of measures for depression. For this study I used the Beck Depression Inventory II (BDI II) to measure depression. Though the BDI II does not measure the number of depressive episodes experienced by an individual, the BDI-II does provide an estimate of the overall level of depression in a brief 21 question format.

Immigrant: Immigrant as a legal term defines individuals “who have lawfully immigrated to the United States and are now lawful, permanent residents or who have their ‘green card.’” (Hilado & Lundy, 2018, p. 25). In explanations of acculturation theory, the term immigrant is seen less from a legal perspective but rather a motivation-based perspective. I used a less stringent definition for this study; unless otherwise specified, I defined immigrants as individuals who have left their country of origin voluntarily through pull factors to achieve a better life (Berry, 2017).

Pull factors: Pull factors, also called attraction factors, are economic and political advantages over the sending country (Castro et al., 2017).

Push factors: Push factors, also called expulsion factors, are economic, social, and political hardships experienced in the country of origin (Castro et al., 2017). Push factors may include conflicts and war, human rights abuses, drought or famine, or religious ideology.

Refugee: Refugees are a specific subgroup within the immigrant population; refugees flee to another country, sometimes referred to as forced migration, due to push factors such as war or human rights abuses (Berry, 2017). If they arrive to a country that has signed the Geneva Convention of refugees, they are legally admitted as refugees (Berry, 2017). The United States is a signatory as recognizes refugees as meeting specific criteria under the U.S. Refugee Act (Hilado & Lundy, 2018). This study recognized the legal designation of refugee as well as referring to a group migrating to another country through push factors.

Assumptions

My first assumption was that unidimensional and bidimensional acculturation theories are the appropriate approach to this study. My second assumption was that the translated versions of my inventories accurately captured levels of acculturation, acculturative stress, and depression of the sample group. My third assumption was that participants inventoried were truthful in their report. My fourth assumption was that I would have an adequate number of participants to draw conclusions representative of the Burmese refugee population resettled in the United States. My fifth assumption was that the Burmese refugee population resettled in San Antonio is representative of Burmese

refugee populations in other locations in the United States in respect to the relationships of the variables studied.

Scope and Delimitations

The purpose of this study was to explore the relationship between acculturation and depression as mediated by acculturative stress among the Burmese refugee population in San Antonio, Texas, and by way of example, the United States. This study was delimited to first generation Burmese refugees, 20 to 60 years of age, resettled in the United States. The sample was a random sample of Burmese refugees gathered through snowball sampling. The initial samples were gathered at a clinic for Burmese refugees at the St. Francis Episcopal Church and the Center for Refugee Services, both in San Antonio. The results of this study are not generalizable to other ethnic populations or later generations of Burmese refugees in the United States.

Limitations

A number of limitations apply to this study. One limitation was the unavailability of existing inventories (BDI II, Suinn-Lew Asian Self Identity Acculturation scale [SL-ASIA], Riverside Acculturation Stress Inventory[RASI]) in native Burmese languages. The inventories were translated from English to Burmese, and back to English to ensure accuracy of translation. A certified Burmese/English medical interpreter was available to provide clarity of questions to in-person respondents. The BDI II has shown validity and reliability with persons from Southeast Asia, but not Burma specifically. The SL-ASIA is widely used among Asian American populations to measure level of acculturation; however, no Burmese translations are available. Because the inventories are self-

administered questionnaires, there was risk of social desirability bias. I assumed that respondents would answer truthfully. One unforeseen limitation was that data was collected during the COVID 19 pandemic.

Significance

This study fills a gap in existing literature by focusing specifically on the relationship between years in the United States, degree of acculturation, level of acculturative stress, and level of depression in Burmese refugees resettled in the United States. This study is unique because it focuses on an understudied population (Sue et al., 2012). Although there is literature that addresses the prevalence of depression among Burmese refugees, as well as literature that relates depression to challenges impeding healthy acculturation among Burmese refugees (Fike & Androff, 2016), there were no quantitative studies that directly correlated degree of acculturation with level of depression or how acculturative stress may mediate level of depression in the Burmese refugee population. Berry's theory of acculturation argues increased acculturation decreases depression, while high degrees of enculturation can increase depression (Berry, 1997). The results of this study provide insight into the impact of acculturation on depression levels among a specific ethnic group. This insight can identify the need of acculturation programs as a tool to decrease depression and improve overall well-being in the Burmese refugee population.

Summary

Studies have historically implicated levels of acculturation and acculturative stress to decreased well-being and lowered mental health; specifically, depression. While

research has been contradictory regarding prevalence of depression among immigrants, several studies have shown refugees, a specific category of immigrant, to be at higher risk of depression. In this chapter, I presented an introduction and background of the problem, the research questions and hypotheses posed in the study, the theoretical foundation, and the purpose and nature of the problem. I presented the definitions of key terms, assumptions, scope and delimitations, and limitations as well. I ended this chapter highlighting the significance of this study.

In Chapter 2, I reviewed applicable literature starting with my search strategy. I then reviewed studies on depression among immigrants and refugees, both in the United States and throughout the world. Because ethnicity influences prevalence of depression and because Burmese refugees are included among the Asian American ethnic group, I reviewed literature on depression among Asians and Asian Americans. Following this, I reviewed available literature on depression specific to Burmese refugees. I followed with reviews of literature on acculturation theories, both unidimensional and bidimensional theories, and acculturative stress. In Chapter 3, I review the research methods I used for this study including the research design and rationale, population and sampling, research instruments and measures, and data collection and data analysis. In Chapter 4, I present results. In chapter 5, I present the findings and make recommendations for further research.

Chapter 2: Literature Review

Introduction

The purpose of this study was to examine the relationship between the degree of acculturation and level of depression in Burmese refugees resettled in the United States. Acculturation is described as a process in which individuals who have developed in one cultural context adapt to a new cultural context through migration (Berry, 1980, 1997). A quantitative, predictive research design was used to first examine the direct effect between length of time in the United States, a unidimensional model, and the level of depression in Burmese refugees, and then to measure the influence of a mediating variable of acculturative stress between length of time on the United States and level of depression. Next, I examined the direct effect between acculturation based on Berry's (1980, 1997) bidimensional model, and the level of depression in Burmese refugees, and then measured the influence of a mediating variable of acculturative stress between degree of acculturation and level of depression. In this chapter, I critically analyzed the research and professional literature available on acculturation, acculturative stress, and depression of refugees, with specific focus on Burmese refugees.

In this study, Burmese refers to all people from Burma. There are legal definitions associated with terms such as nonimmigrants, immigrants, and refugees. Individuals who have entered the United States for a short period of time to visit, study, or work are considered nonimmigrants of which there are 22 categories (Hilado & Lundy, 2018). Immigrants refer to individuals "who have lawfully immigrated to the United States and are now lawful, permanent residents or who have their 'green card.'" (Hilado & Lundy,

2018, p. 25). The U.S. Refugee Act defines refugee as a person who “owing to well founded fear of prosecution for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable, or, owing to such fear, is unwilling to avail himself of the protection of that country” (Hilado & Lundy, 2018, p. 25). The individual must apply outside of the United States and meet the criteria to become designated as “refugee” (Hilado & Lundy, 2018, p. 25).

While various pull factors, such as economic reasons for labor migrants, have encouraged migration into the United States, push factors, such as persecution and abuses of human rights based on ethnicity or religion, have forced refugees and seekers of asylum to migrate (Castro et al., 2017; Lindert et al., 2009). Because of these push factors, to include an inability to return to country of origin, refugees have a higher incidence of depression when compared to other categories of immigrants (Lindert et al., 2009). Migration due to push factors influences the acculturation strategy and results in decreased integration or assimilation in the host culture (Berry, 2003). The Burmese refugee population in the United States is one such Asian American subgroup that is highly understudied but holds a high incidence of depression among its membership (Kim, 2018; Kim & Keovisai, 2016). Individuals of Asian ethnicity are vastly underrepresented in the majority of mental and behavioral health studies. Moreover, when Asians are included, they are usually combined as a single ethnic group (Sue et al., 2012; Benuto et al., 2014; Rhee, 2009). Cummings et al. (2011) warned that aggregating data across various immigrant groups results in inaccurate generalizations. The authors

recommended that future research examine pathologies among specific immigrant groups (Cummings et al., 2011). Sue et al. (2012) has specifically recommended for further study of Asian American subgroups and mental health issues that affect specific understudied subgroups. Kim (2018) identified depression among Burmese refugees as significant, highlighted variances within Burmese subethnic groups, and recommended further study of depression in this understudied group. In this chapter I review literature pertaining to depression among immigrants and refugees, depression among Asian Americans, the background of Burmese refugees and how depression specifically effects this Asian American subgroup, acculturation theory, and acculturative stress.

Research Strategies

The literature review on acculturation, acculturative stress, and depression among Burmese refugees was conducted by accessing resources online through the Walden University library and a search for relevant books specific to acculturation and acculturative stress. I conducted a systematic search through a variety of databases and search engines through the Walden University library for literature on the subject in the English language from 2010 to 2021. I used EBSCO host databases to include Expanded Academic ASAP, CINAHL Plus, Complementary Index, Journals@OVID, PsycINFO, Social Sciences Citation Index, and SocINDEX to search peer reviewed journals. I found books on the subject through searches on the Walden University library, Google Scholar, and Amazon. Internet sources included web pages from governmental and nongovernmental organization sites. I identified additional publications via review of the reference lists of relevant publications. Keywords used alone or in combination included

acculturation, acculturative stress, accommodation, Asian, Asian American, assimilation, Burmese, depression, mental health, refugee, immigrant, and Southeast Asian.

Depression among Immigrants and Refugees

The American Psychiatric Association (2018) described depression as “a common and serious medical illness that negatively affects how you feel, the way you think and how you act”. The *Diagnostic and Statistical Manual of Mental Disorders*–5th ed. (DSM-5, 2013) provided a clinical diagnosis definition of major depressive disorder pointing to the essential feature of a depressive episode of at least 2 weeks including either depressed mood or lack of interest or pleasure in all activities (p. 163). Depression is the most common and debilitating mood disorders in the United States with an estimated lifetime prevalence rate for major depressive disorder between 20% to 23% from 2012 through 2013 (Hasin et al., 2018; Salas-Wright et al., 2018; Todd & Teitler, 2018). This was a significant increase in prevalence as compared to a similar study between 2001-2002, which found a lifetime prevalence in the United States of 13.23% (Hasin et al., 2005). Globally, depression is a leading cause of disability with an average lifetime prevalence rate of 10.8% (Lim et al., 2018). As in the United States, the global rate of depression is on the rise with an estimated 2011 prevalence rate of 14.6% across 10 high income countries and 11.1% in low to medium income countries (Bromet et al., 2011; Malhi & Mann, 2018). While the global prevalence rate is slightly lower than that of the United States, there is great variability among countries (Bromet et al., 2011). It is important to understand the context in which rates of depression may be compared, as

most of the available literature on depression among Asian American and Burmese refugees is within this time period.

Studies of immigrant and refugee groups produce mixed results. Immigrant populations, as compared to native-born populations, have usually been found to have higher rates of depressive disorders (Galler & Sher, 2010; Salas-Wright et al, 2018). These studies, predominantly conducted in Europe, support theories that immigrant groups are at a higher risk of developing mental health issues such as depression compared native born residents (Salas-Wright et al., 2018; Bas-Sarmiento et al., 2017). In an 18-study meta-analysis, Mindlis and Boffetta (2017) found that first generation immigrants were 25% more likely to suffer from a mood disorder as compared to members from the native-born population. Interestingly, six of those studies found no significant increase in mood disorders and one study from the Netherlands even found immigration as a protective factor against mood disorders (Mindlis & Boffetta, 2017). Only one study, conducted in 1936, was from the United States and it found an increased risk among immigrants for a mood disorder (Mindlis & Boffetta, 2017). Beutel et al. (2016) compared first-generation Turkish and Polish immigrants to the native-born German population. They found that Turkish immigrants (21.6%) and Polish immigrants (9.6%) had a higher incidence of depression than the native-born German population (6.8%). Depression and suicide have been shown to be strongly correlated to each other (American Psychiatric Association, 2013; Bergan & Saharso, 2010). The WHO/EURO Multicentre Study on Suicidal Behaviour found 27 of 56 immigrant groups to have significantly higher rates of suicide attempt than the native-born populations (Lipsicas et

al., 2012). Only four immigrant groups from that study had a lower incidence of suicide attempts compared to native born individuals (Lipsicas et al., 2012).

Comparatively, studies in the United States often support a healthy migrant hypothesis. This hypothesis states that the immigration process is not random and that “psychologically hardy” (Salas-Wright et al, 2018, p. 438) individuals are more apt to endeavor the immigration process (Abraido-Lanza et al., 1999; Salas-Wright et al., 2018). A review of literature indicated that studies in the United States often suggest that immigrant groups have less depression than native born residents (Bas-Sarmiento et al, 2017; Salas-Wright et al, 2018; Xu & Chi, 2013). Sala-Wright et al. (2018) supported this hypothesis using a 2012-2013 national study to compare U.S. immigrants to the native born population and found immigrants were less likely (12.32%) to meet a lifetime major depression disorder than native born members (22.17%). Xu and Chi (2013) analyzed the 2002-2003 National Latino and Asian American Study and concluded that acculturative stress and social support influenced depression prevalence rates. The authors also found Asian immigrants to the United States had a lower prevalence of depression as compared to United States born natives (Xu & Chi, 2013). Some international studies have also supported a decreased prevalence of depression among immigrants. Foo et al. (2018) conducted a meta-analysis of 25 international studies and found that the aggregate prevalence of depression among immigrants was 15.6%. Foo et al. (2018) also found in studies earlier than 2010, the prevalence was only 11% as compared to 19% in studies 2010 and more recent.

However other studies have indicated similar prevalence rates of depression among immigrants comparative to respective nationwide prevalence rates. In a meta-analysis of 35 studies between 1990 to 2007, across 35 populations, the combined prevalence rate of depression for immigrants was 20% (Lindert et al., 2009). Seven of the studies in this meta-analysis were conducted in the United States of which most reported a lower depression prevalence rate of immigrants (Lindert et al., 2009). In aggregate, the prevalence rate of depression among immigrants is comparable to that of the United States (Lindert et al., 2009). The authors in that study highlighted however, the prevalence rate of depression of refugees, a specific category within the refugee population, was double that of non-refugee immigrants (Lindert et al., 2009).

“Ethnicity” has been shown across several studies to be a significant moderating variable to depression. While the aggregate prevalence rate of depression of immigrants often show mixed results as compared to native born populations, studies have also shown significant variances between ethnic groups. Qureshi et al. (2013) conducted a cross-sectional comparison study between native Spaniards and immigrants in Spain. Overall, there was no significant difference in prevalence of psychopathology as compared to the general population, however, the depression prevalence rates of different ethnicities of immigrants varied. Latin American immigrants experienced 36.8% higher incidence of depression than the native population while Asian immigrants demonstrated a 16% lower incidence of depression. In support of the healthy immigrant hypothesis, Bergan and Saharso (2010) found most Hispanic and Asian immigrant populations with lower rates of depression as compared to Caucasians.

“Age at immigration” often serves as a moderating factor. Salas-Wright et al. (2018) found that adults that immigrated to the United States prior to reaching age 12 displayed similar prevalence of depression as native-born residents. Mui and Kang (2006) examined the correlation of acculturation stress and depression in Asian immigrant elders consisting of six subgroups (Chinese, Korean, Indian, Filipino, Vietnamese, and Japanese). Approximately 40% of the Asian elderly immigrant participants presented with symptoms of depression (Mui & Kang, 2006). This far exceeded the 15% to 20% rate of depressive symptoms among American and Asian (non-immigrant) elderly participants (Mui & Kang, 2006).

“Length of time” in the United States has also been found to correlate to differences in prevalence of depression, but the research remains mixed. Greenfield and Daniel (2010) found a positive correlation between length of residency in the United States of first-generation immigrants and psychological well-being. In this same study, second- and later generations were at increased risk of mental illness and suicide (Greenfield & Daniel, 2010). Both Sainsbury and Barraclough (1968) and Greenfield and Daniel (2010) found that suicide rates of first-generation immigrants similar to their country of origin. Greenfield and Daniel (2010) also found that suicide rates of later generations in North America were similar to North American trends (Greenfield & Daniel, 2010). Conversely, several studies have also shown that the longer immigrants are in the United States, the more mental health problems they experience (Wong et al., 2014). Foo et al. (2018) concluded that newly arrived immigrants are at a higher risk of

developing depression. This was also supported by Lee, et. al (2018) who found that first-generation Koreans have a higher prevalence of depression than later generations.

Refugees are a specific subgroup within the immigrant population. As with other categories of immigrants, research has provided mixed results. Research has often identified that refugees have a higher depression prevalence rate as compared to other immigrants (Cardozo et al., 2004; Cummings et al., 2011; Lindert et al., 2009; Steele et al., 2009). Cardozo et al. (2004) found in their study of Burmese refugees the prevalence of depression at 42%. Steele et al. (2009) conducted a meta-analysis of 161 studies on refugees and post-conflict populations estimating prevalence of depression for these two populations at 31%. In a comparative study between non-refugee immigrants and refugees, Lindert et al.'s (2009) study found the prevalence of depression of non-refugee immigrants at 20%, similar to the national prevalence rate, while refugee populations experienced significantly higher prevalence rates of depression at 44%.

“Age” is a significant moderating variable in the refugee population. There is a substantial prevalence of depression among older refugees (Cummings et al., 2011; Riley, et al., 2017). In their study of resettled older (50+) Kurdish refugees ($N = 70$), Cummings et al. (2011) found a prevalence rate of 67.1% for clinical depression, with 25.7% of participants experiencing depression at severe levels. This is nearly five times the prevalence rate of depression among the United States general population age 65 or older (Cummings et al., 2011). Riley, et al. (2017) found in their study of Burmese Rohingya refugees in Bangladesh awaiting resettlement ($N = 148$), older age correlated to increased prevalence of depression.

As with non-refugee immigrants, increased length of residence in the United States is often associated with a decline in depression among refugees. Beiser (1988) found that refugees experienced a spike in depression occurring several months after arrival followed by a decrease in depression. Bogic, et al. (2015) conducted a meta-analysis of 29 studies ($N = 16,010$) on depression among refugees five or more years post resettlement. The findings estimated depression at approximately 20% among this group. Some studies have found lower prevalence rates of depression among refugees as compared to immigrants and the native population. Fazel, et al. (2005), in a meta-analysis ($N = 6743$) of 26 studies, estimated prevalence of major depression among refugees occurred at only 5% of the given population.

Depression Among Asian Americans

The term Asian American refers to a heterogeneous, pan-ethnic population composed of over 19 ethnicities, with ancestral origins in the Far East, Southeast Asia, and the Indian subcontinent (Budiman, et al., 2019). The Asian American population continues to be the fastest growing immigrant group in the United States (Chan & Barriochoa, 2019; Zhang & Tsai, 2014). Between 2000 and 2010, the Asian and Asian-in-combination population in the United States increased by 46% to 17.7 million (U.S. Census Bureau, 2018). By 2016, this population increased to 21.4 million, 8.4% of the United States population (U.S. Census Bureau, 2018). Approximately two thirds of the Asian American population are foreign born (Hoeffel, et al., 2012; Kim, 2011; Lopez, et al., 2017; Zhang & Tsai, 2014). Kim (2011) estimated that by 2050, Asian Americans will account for 10% of the U.S. population. Six subgroups make up the majority of the

Asian American population; Chinese (excluding Taiwanese), Asian Indian, Filipino, Vietnamese, Korean, and Japanese (Budiman et al., 2019; U.S. Census Bureau, 2018).

Study results on the prevalence rates of depression vary among Asian Americans. According to one analysis of the 2002-2003 National Latino and Asian American Study, there was a lifetime prevalence of major depression in 7.9% of Asian immigrant women and 8% of Asian immigrant men (Singh, et al., 2017). Analyzing this same study, Takeuchi, et al. (2007) found the prevalence for Asian Americans overall to be 9.1%, as compared to non-Latino Whites (17.9%), Hispanics (13.5%), and non-Hispanic Blacks (10.8%). Jackson et al. (2011) found in their analyses of the Collaborative Psychiatric Epidemiological Surveys (CPES), which included the 2002-2003 NLAAS, that major depression prevalence rates are lower among immigrant Asian Americans as compared to native born Asian Americans. The 2013 NESARC-III estimated a 12.2% prevalence of depression among Asian Americans, approximately half the prevalence of depression among non-Hispanic Whites (Hasin et al., 2018). Within the Asian American grouping, Asian subgroups have different rates of depression (Kalibatseva & Leong, 2011). While the prevalence of depression among Asian Americans is often lower than other ethnic groups, Asian Americans seek mental health interventions less frequently than other groups, and the treatment they receive is reported to be inadequate (Alegria et al., 2008; Kalibatseva & Leong, 2011). Further, Kalibatseva and Leong (2011) stated that although prevalence rates of depression are lower among Asian Americans in the United States as compared to other ethnic groups, these rates are higher than the respective prevalence rates in the country of origin. Gender and age are also strong moderating factors. Asian

American adolescent girls have been found to have a higher prevalence of depression than other groups (Galler & Sher, 2010; Kalibatseva & Leong, 2011).

There are significant subcultural differences among Asian Americans that are often ignored due to the tendency to use the umbrella term “Asian American” (Lee, 2015; Sue et al., 2012). Sue et al. (2012) argued that this practice ignores the varied history and varied experiences of acculturation. There are significant subcultural differences in well-being and prevalence of major depression among Asian Americans (Ai, Nicdao, Appel, & Lee, 2015). Drawing from various studies, Ai et al. (2015) argued this point by explaining Chinese women had a higher rate of major depression (6.4%) than Vietnamese women (5.2%) and that Vietnamese men had a higher prevalence of depression (6.6%) than Chinese men (3.5%). Other studies have reported a depression prevalence rate of 21.5% for native born Chinese Americans, 7.7% for foreign-born Chinese Americans, and 7.2% for Filipino Americans (Kalibatseva & Leong, 2011). Ethnic subgroup, age, and gender differences are lost when aggregating various subcultural data into the often-used term “Asian American” (Kalibatseva & Leong, 2011).

Burmese Refugees

Burmese refugees predominantly seek asylum in Thailand, Malaysia, India, and Bangladesh (Alexander, 2008; Cardozo et al., 2004; Fike & Androff, 2016; Kim, 2018; Rae, 2007). The majority of Burmese refugees who have resettled to the United States have resided in refugee camps in Thailand or Malaysia for several years prior to completing their journey (Alexander, 2007; Barron et al., 2007; Cardozo et al., 2004; Fike & Androff, 2016; Kim, 2018). Cardozo et al. (2004) estimated between 1 to 2

million Burmese “illegal” migrants and 120,000 refugee Burmese reside in Thailand based on statistics compiled by the United States Agency for International Development (USAID). Rae (2007) estimated about one million Burmese have migrated into Thailand, with 350,000 being refugees, and 150,000 of those living in refugee camps. Alexander (2007) estimates between 60,000 to 80,000 ethnic Chin Burmese have fled into India, with the majority living in the Mizoram Hills area without support from the United Nations High Commissioner for Refugees (UNHCR). UNHCR refugee processing for these refugees was taking place in India until mid-2006 (Alexander, 2007). “Special needs” cases were process at this location until late 2007 when the UNHCR stopped processing refugees seeking asylum (Alexander, 2007). Alexander (2007) stated only 1000 Burmese had been given UNHCR refugee status in India.

The UNHCR (2019) reported that there continues to be a record-breaking number, approximately 70.4 million, of forcibly displaced people throughout the world, the highest since 1951. Of this number, 20.2 million were refugees under the UNHCR mandate, up from 16.1 million in 2015 (UNHCR, 2016; 2019). Myanmar (Burma) was the fourth largest contributor to this number with 1.2 million Burmese refugees (UNHCR, 2019). The UNHCR (2019) reported that by mid-2018, 943,200 Burmese refugees lived in Bangladesh, 106,400 in Malaysia, 97,400 in Thailand, and 18,600 in India. As of 2014, only 1% of Burmese refugees had been permanently resettled in a third country, of which the United States accepted about 70% (Tan & McClellan, 2014).

In this study, “Burmese” refers to all people from Burma. The government, under military rule, changed the name from Burma to Myanmar in 1989, however, the U.S.

government continues recognize to the country as Burma (U.S. Department of State, 2018). The Myanmar government recognizes eight major ethnic groups; Bamar (Burman), Kachin, Kayah (Karenni), Kayin (Karen), Chin, Mon, Rakhine and Shan (Myanmar National Portal, 2019). Overall, there are 135 ethnic groups, subgroups and tribes (Barron et al., 2007; Myanmar National Portal, 2019). The Myanmar government does not recognize the Rohingya ethnic group as Myanmar citizens though they have lived in the region for hundreds of years (Blakemore, 2019; Milton et al., 2017). This Muslim ethnic group settled in the independent Arkane State in the 1430s (Blakemore, 2019). Burma conquered the Arkane State in 1884 and absorbed it into the Burmese Empire (Blakemore, 2019). The Arkane State Muslim adopted the name Rohingya and was neither recognized by the new Burmese government after British independence in 1948 nor the 1962 military led government (Blakemore, 2019). The military led government-initiated state sponsored persecution of the Rohingya that persists to this day (Blakemore, 2019; U.S. Department of State, 2019). More than 500,000 Rohingya have fled Burma and sought asylum into neighboring countries (Milton et al., 2017). The United States has accepted 8,513 Rohingya refugees into the United States as of 2018 and are included in total numbers of Burmese refugees resettled in the United States (Files, 2019). The Karen and Burman have been the largest ethnic composition of Burmese refugees resettled in the United States, followed by significant numbers of Karenni and Chin (Barron et al., 2007; Kim 2018). Ethnicity and religion are not officially recorded by the United States government making precise ethnic analysis difficult (Fike & Androff, 2016). While exact ethnicity statistics are not recorded, it is clear that the

Rohingya make up the majority of current refugees; however, they compose only a small percentage of total Burmese refugees accepted into the United States to date.

Compared to other Asian American ethnic groups in the United States, the Burmese American population is small. The U.S. Census Bureau (2016) estimated 166,368 Burmese Americans living in the United States who originated from Burma by birth or ancestry. Though only .03% of the United States population, Burmese refugees have been the largest refugee group (23%) resettled in the United States between FY2007 to 2017 (Zong & Batalova, 2017). Burmese refugees have continued to be the largest refugee group resettled into the United States (Refugee Processing Center, 2019; Zong, Batalova, & Burrows, 2018). As of September 30, 2021, the Refugee Processing Center has admitted 181,136 Burmese into the United States ((Refugee Processing Center, 2021)

Refugees experience psychological distress at various phases of the migration process; pre-migration, migration and post-migration (Hass, 2018). Acculturation is often viewed as a post-migration phenomenon in which immigrants apply acculturation strategies and adopt behaviors that range between heritage and host cultures (Berry, 2006; Chun & Akutsu, 2003). However, to understand immigrant health, it is important to consider the context or process in which migration occurs, to include premigration and migration factors (Schwartz, et al., 2010; Zimmerman, et al., 2011). Pre-migration trauma experienced by refugees and asylum seekers can increase acculturation difficulty (Schwartz & Unger, 2017).

Premigration Experience

Excluding the Burman (majority group), unfair treatment and abuse have been directed against seven of the eight major ethnic groups; Kachin, Kayah (Karenni), Kayin (Karen), Chin, Mon, Rakhine, and Shan (Rae, 2007). Ethnic minorities were also excluded from healthcare and medical services (Rae, 2007). Since 1984, push factors such of flight from conflict, persecution of religion and ethnicity, and severe human right violations perpetrated under government orders by the military regime, resulted in large numbers of Burmese refugees fleeing to Thailand, Malaysia, Bangladesh, and India (Alexander, 2008; Cardozo et al., 2004; Oh & van der Stowe, 2008). In 1988, there was a pro-democracy uprising against the junta (military government) that led to widespread unrest and harsh treatment of ethnic minorities (Cardozo et al., 2004). Between 1995 and 1996, the military led government again resorted to destruction of entire villages in an effort to relocate minorities that provided support to the resistance groups, such as Karen National Liberation Army, the armed wing of the Karen National Union (Cardozo et al., 2004; Rae, 2007). In large military offensives against insurgents in 1997, Karenni, Shan, Mon, and Karen were forced to flee their homes (Rae, 2007). The military junta carried out policies of forced labor, arbitrary executions, forced relocation and destruction of crops targeting the Karen and Chin (Agbényiga et al., 2012). Between 1996 and 2000, the military junta forced approximately 300,000 Shan villagers to relocate (Rae, 2007).

In a study of Karenni refugees in Thailand ($N = 495$), Cardozo et al. (2004) found the most common reported traumatic events were “hiding in the jungle (79%), forced relocation (69%), loss of property (66%), and destruction of houses or crops (48%)” (p.

2640). Exposure to combat (22.2%), torture (19.2%) and rape (3%) were also reported (Cardozo et al., 2004). In a more recent study ($n = 179$) of post-migration Karen Burmese refugees, 27.4% experienced firsthand torture and 86% experienced war trauma (Shannon, Vinson, Weiling, Cook, & Letts, 2015). Shannon et al. (2015) found that while there was a positive correlation between first hand experience of torture and Post-Traumatic Stress Disorder (PTSD), there was no significant correlation with depression. Additionally, there was no significant correlation to PTSD or Depression among those refugees that experienced second hand torture (witnessing torture), or first or secondhand exposure to war trauma (Shannon et al., 2015). In their study of Burmese refugees ($n = 70$) resettling to Australia, Schweitzer, et al. 2011) found that pre- and post- migration difficulties influenced the development of psychological symptoms.

Migration

Migration experiences vary based on the country in which the refugee travels through; Thailand, Malaysia, Bangladesh, India, and Bangladesh. Most Burmese refugees accepted for UNHCR resettlement into the United States are from Thailand and Malaysia. Brees (2008) explained that Thailand does not recognize “refugee” as a status, rather the country recognized Burmese refugees as “temporarily displaced persons fleeing fighting” (p. 384). Thailand expects that when conditions become acceptable in their own country, Burmese will return (Brees, 2008). Burmese refugees in Thailand, 124,000 registered with UNHCR in 2007, are legally present in the country, but are not allowed to leave specially designated camps (Brees, 2008). If they leave the camp, they become illegal migrant workers, of which there were an estimated 816,000 in 2001, the majority

of whom were Burmese. Approximately 849,552 migrants, a majority being Burmese, in 2007 choose to register for work permits to work and live outside of the camps, but lose their displaced person status and fall off the resettlement list (Brees, 2008). Refugees are then put into a situation of poverty inside the camps, risk of deportation and low remuneration for work outside of camp (Brees, 2008). Thailand wished to assist with the UNHCR with the refugee mission, but at the same time, wished not to create pull factors for increased migrants into Thailand (Brees, 2008).

While refugees in Thai camps received basic needs of food, shelter, water, and sanitation, they did not receive fresh fruit, vegetables, or meat (Brees, 2008; Cardozo et al., 2004). Mental health stressors included inadequate nutrients in food, inability to cultivate gardens outside of the camps, and inability to be employed (Cardozo et al., 2004). Fike and Androff (2016) reported that due to the stress of camp conditions, there was a high prevalence of domestic violence, rape, and drug and alcohol abuse. While Cardozo et al. (2004) found low rates of PTSD (4.6%), prevalence rate of depression for refugees was 41.8% and 40.8% for anxiety.

Malaysia became a common destination for ethnic Chin Burmese refugees with approximately 23,000 Burmese refugees, primarily Chin, in 2007 (Alexander, 2007). As of January 2017, UNHCR estimates 133,856 refugees from Myanmar, including 56,135 Rohingya and 39,967 Chin currently live in Malaysia (McConnachie, 2019). Malaysia was not a signatory to the 1951 Convention Relating to the Status of refugees or the 1967 Protocol (Alexander, 2007; McConnachie, 2019). UNHCR had a refugee registration process in Malaysia until the beginning of 2006 (Alexander, 2007). The registration

process helped in resettlement of refugees but provided no access to protections or benefits from the Malaysian government (Alexander, 2007). Burmese refugees were not able to work in Malaysia and about one-third of Burmese refugees worked as illegal migrants facing risk of arrest, detention, and deportation (Alexander, 2007; McConnachie, 2019). Additionally, Burmese refugees are unable to attend public school, sign a lease, or open a bank account (McConnachie, 2019). While Burmese refugees lived in poverty in makeshift camps or in the capitol Kuala Lumpur and endure frequent harassment and abuse by Malaysian authorities, many prefer the slightly higher income and freedom from living in camps as compared to refugees in Thailand (McConnachie, 2019).

Post Migration

In addition to stressors encountered in a refugee's country of origin and during the migration process, refugees encounter a number of post-migratory stressors upon arrival in the country of resettlement (Carlsson & Sonne, 2018). Post migration stressors include the asylum process and visas status, social problems, and difficulties in acculturation (Carlsson & Sonne, 2018). Discrimination, unemployment, poverty, changing family dynamics, access to healthcare, and loss of cultural support are all factors that present during the post migration process (Carlsson & Sonne, 2018). Carlsson and Sonne (2018) cite several studies that provide evidence post migration factors may influence refugee mental health more than pre- and during migration trauma.

In a small qualitative study ($N = 46$), Hauck et al. (2014) explored post-migration difficulties of refugees (Burmese = $N = 15$; Bhutan = $N = 15$; Iraqi = $N = 16$) on self-

reported well-being. In general, resettlement expectations of Burmese refugees were generally met with some respondents even saying they were more satisfied in the United States (Hauck et al., 2014). Burmese refugees found financial difficulty living in the United States but perceived that they were remunerated fairly for their work (Hauck et al., 2014). In Vietnamese and Hmong refugee populations, level of English proficiency has been a strong indicator of PTSD and depression prevalence rates and is often used as a unidimensional measure of acculturation (Organista, Organista, & Kurasaki, 2003). Most of the Burmese found English proficiency as their greatest barrier, but also felt a sense of hope for their children growing up in the United States (Hauck et al., 2014). Interestingly, the greatest stressor for adult children of Burmese refugees was providing financial assistance to their families (Hauck et al., 2014). Burmese listed social support from other Burmese refugees in their community as a positive factor to their well-being (Hauck et al., 2014).

Depression Among Burmese Refugees

Cardozo et al. (2004) found in their study of Burmese Karenni refugees ($N = 425$) in Thailand awaiting resettlement the prevalence of depression was 42%. Burmese Rohingya refugees in Thailand awaiting resettlement had a prevalence of depression at 89% (Riley et al., 2017). Schweitzer et al. (2011) found a 36% prevalence of depression in newly arrived Burmese refugees ($N = 70$) with a mean time in Australia of 3.6 months. In a recent study of Burmese refugees comprised of the two major ethnic groups, Karen ($N = 100$) and Burman ($N = 84$), the prevalence of post-settlement depression was 21.2% (Kim, 2018). In this group, the refugees reported staying at a refugee camp for an average

of nine years and five months. Their average length of stay in the United States was five years and six months. Kim (2018) found longer lengths of time in refugee camps, being Karen, and being female correlated to higher rates of depression. Within this group, the Karen ethnicity had a depression prevalence of 38% as compared to 10% of the Burman ethnicity. Moreover, Karin women had a depression prevalence of 69% as compared to Burman women with a 45.2% prevalence. Brink, Shannon, and Vinson (2016) found through convenience sampling ($N = 180$) of resettled Karen refugees visiting a family medical clinic, 12.8% met criteria for major depressive disorder. Length of time in the United States was not measured in that study, but the average length of time spent in a refugee camp was 11.48 years (Brink et al., 2016).

Acculturation Theories

Throughout the years, various scholars have applied different definitions to acculturation and have conceptualized various acculturation models. Though the term is widely used, an agreed upon meaning and operational definition has yet to be established. Powell in 1880 may have been the first to use the term acculturation to define psychological changes gained through cross-cultural imitation (Berry & Sam, 2016). Redfield et al. (1936) defined acculturation as “those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original cultural patterns of either or both groups” (p. 149). Graves (1967) argued psychological acculturation defines changes that occur in attitudes, values, and identify through cross cultural contact at the individual level. Acculturation is currently recognized as change which can be applied to a larger system

or groups within a society, to the receiving society, or as individual change (Schwartz & Unger, 2017; Trimble, 2003).

Acculturation is often used as synonymous with assimilation or used interchangeably. Earlier conceptualizations of acculturation viewed assimilation as the process outcome. While Gordon (1964) conceptualized acculturation as one phase within assimilation, Graves (1967) conceptualized assimilation as one phase of acculturation. Teske and Nelson (1974) viewed acculturation and assimilation as directional, that assimilation was a host culture influencing change on another group, while acculturation could be reciprocal. Berry (1980) conceptualized assimilation as one of four acculturation strategies.

Berry (1980, 1997) described acculturation as a process in which individuals who have developed in one cultural context adapt to a new cultural context through migration. Similar to Graves (1967), Berry (1980, 1997) conceptualized that psychological acculturation focuses on psychological changes within individuals that occur as a result of the acculturation process. In alignment with Berry's definition of psychological acculturation, this study will use the term acculturation to refer to individual psychological processes and outcomes of intercultural contact (Berry, 1997, 2017). Models of acculturation may be viewed as unidimensional, bidimensional, or multidimensional with current conceptualizations mostly viewing acculturation as bidimensional or multidimensional (Schwartz & Unger, 2017; Trimble, 2003).

Unidimensional Model

As early as 1921, theorists viewed acculturation as an assimilation process occurring along a single continuum (Flannery et al., 2001). Suarez-Orozco (2000) summarized acculturation (assimilation) models as directional, unilinear, nonreversible, and continuous. The unidimensional model further assumes acculturation only influences the acculturating group (Cabassa, 2003). Gordan (1964) articulated on three ideological tendencies of assimilation; Anglo-conformity, the melting pot, and cultural pluralism. Anglo-conformity resulted in the complete loss of the heritage culture through replacement with values and behavior of the dominant Anglo-Saxon culture (Gordan, 1964). The melting pot process blended the heritage culture and the host culture into a “new indigenous American type” (Gordan, 1964, p. 85). The third possible type of assimilation was cultural pluralism, which retained much of the heritage culture with integration into American political and economic culture (Gordan, 1964).

The unidimensional model has been described as a zero-sum phenomenon, in which acculturation into the dominant culture results in a loss of the heritage culture, or cultural shedding (Cabassa, 2003; Phinney, 2003; Schwartz & Unger, 2017). Gordan (1964) argued that unless the receiving culture fully internalized elements of the dominant culture, acculturation was not realized. Similarly, Spindler and Spindler (1958) explained acculturation as a process from a native oriented state to an “elite” acculturated state (p. 219). Flannery et al. (2001) importantly pointed out that though unidimensional models are considered unilinear because it results in only one outcome, assimilation,

unidimensional models assume assimilation takes place among many layers or stages such as language, social, and economic.

Bidimensional Model

Most current bidimensional models propose that acculturation involves two independent dimensions; receiving or dominant culture acquisition and heritage culture retention (Berry, 2003; Schwartz & Unger, 2017). That is, acquisition of the new culture does not necessarily lead to loss of the heritage culture. Bidimensional models allow for varying degrees of identity within both the heritage and host cultures to include the concept of biculturalism, strong identification with both the heritage and host cultures (Zhang & Tsai, 2014).

Padilla (1980) conceptualized a bidimensional model using the two dimensions of cultural awareness and ethnic loyalty. Camelleri (1990) conceptualized a bidimensional model based on self-identity, the ideal or desired self and the pragmatic self (Berry, 2003). Berry's bidimensional model of acculturation measures preferences on the two dimensions of host culture and heritage culture and four acculturation strategies; assimilation, integration, separation, and marginalization (Berry, 1980, 1997, 2003). Berry's acculturation strategies, based on attitudes and behavior, are derived on his earlier conceptualization of acculturation attitudes (Berry, 2016). Berry (2016, 2017) explained acculturation strategies as a) assimilation, in which individuals no longer wish to maintain their culture of origin identity and seek to identify with the dominant culture, b) integration, in which an individual maintains a culture of origin identification while also participating as an integral member within the dominant social network, c)

separation, in which an individual maintains his original culture origin and avoids interaction with others in the dominant culture, and d) marginalization, in which an individual does not maintain the culture of origin and avoids others the dominant culture. These are based off a framework described by Berry et al. (1987).

It is often assumed that nondominant groups and individuals have the freedom to choose their acculturation strategy, but Berry (1974) argues this is not always the case. Voluntary immigrants are more likely to participate in the assimilation or integration process than for example refugees who did not voluntarily choose to leave their home of origin (Williams & Berry, 1991).

Multidimensional Model

Multidimensional models assume the acculturation process consists of three or more intersecting domains (Schwartz & Unger, 2017). This may occur in countries or regions in which there are multiple cultural streams as opposed to a single dominant receiving culture or when a migrant group acculturates to a receiving society's cultural subgroup which is culturally similar (Doucerain, Dere, & Ryder, 2013; Schwartz & Unger, 2017). The multidimensional model addresses acculturation according to differing contexts. Doucerain et al. (2013) argued that acculturation is domain specific and preferences change according to context; i.e., acculturation strategies can differ between public and private life domains. Lopez et al. (2011) conceptualized acculturation across several domains to include language, cultural-related behaviors, relational behaviors, and membership in various cultural groups and that acculturation may occur at different rates within the various dimensions.

Acculturation and Depression

Level or degree acculturation is often considered to have a correlation to psychological well-being, depression, and anxiety (Berry et al., 1987; Sue 2002). Sue (2002) importantly pointed out acculturation researchers have found both positive and negative correlations between acculturation and mental health. Sue (2002) specifically states that acculturation may shape an individual's experience with distress. In this regard, acculturation as a construct itself has a direct impact on mental health.

Oppedal and Toppelberg (2016) explained that more than just an attitude, development of cultural competence to include both attitude and behavior leads to improved mental health. Though a developmental construct, cultural competence does not mean assimilation, but rather a developmental process towards degree of belongingness to both the heritage culture and receiving culture (Oppedal & Toppelberg, 2016). This is similar to Berry's (1997) integration mode of acculturation. Berry (2006) and Oppedal and Idsoe (2015) agree that higher levels of integration and competence in both heritage and majority society culture directly (acculturation) and indirectly (resilience to acculturative stress) reduce depression symptoms. Ying (1995) in an older study also found that while the integration mode of acculturation correlated to better mental health, separatist correlated to better mental health than the assimilation mode. These results are counter to the view that as acculturation increases, acculturative stress decreases, which results in better mental health (Berry, 1997; Organista et al., 2002; Yeong & Schwartz, 1986; Zheng & Berry, 1991).

Acculturative Stress

Berry et al. (1987) argued a psychological relationship between acculturation and mental health. Berry et al. (1987) further described acculturative stress as one kind of general physiological or psychological stress attributed to stressors within the acculturation process that lead to a reduction in psychological, somatic, or social health status. Berry et al. (1987) explained acculturative stress can lead to particular stress behaviors “such as lowered mental health status (specifically confusion, anxiety, and depression), feelings of marginality and alienation, heightened psychosomatic symptom level, and identity confusion” (p. 492). To be considered acculturative stress, these negative behavioral changes must be related to features within the acculturation process (Berry et al., 1987; Williams & Berry, 1991).

In Lazarus and Folkman’s (1984) stress and coping theory, stressors must be perceived as stressful or threatening and uncontrollable beyond coping skills. In line with this stress theory, Berry and Kim (1987) noted mental health problems from acculturative stress are not inevitable and vary based on individual characteristics. Santos (2006) argued acculturative stress was a predictive variable in both severity and duration of depression. Hwang and Ting (2008) argued acculturative stress as a mediating variable between acculturation and depression. Suinn (2010) argued acculturative stress may be a significant mediating factor in the acculturation process and recommended further research with acculturative stress as a mediating pathway. Romero and Pina-Watson (2017) argued that research clearly correlates acculturative stress in immigrants with worsened mental health, especially depression.

In his bidimensional theory of acculturation, Berry (1997) argued increased acculturation decreases depression, while high levels of enculturation can increase depression. Berry (1997) explained some degree of cultural shedding, the unlearning of one's heritage culture, is necessary in acculturation and improved mental health. If this does not happen, Berry (1997) suggested acculturative stress occurs. Berry et al. (1987) explained the acculturation process may enhance an individual's mental health or may destroy their ability to carry on. Berry (2006) argued some may see the change through the acculturation process as a stressor, while others may view change as benign, or even as an opportunity.

Berry et al. (1987) conceptualized moderating factors between acculturation and acculturation stressors (p. 493): a) nature of the larger society, b) type of acculturating group, c) mode of acculturation, d) demographic and social characteristics, and e) psychological characteristics of the individual.

Nature of Society

The nature of society is the degree of culturally diversity in the receiving culture. Migrants may experience fewer mental health problems in multicultural societies than in assimilationist societies (Murphy as cited by Berry et al., 1987).

Type of Acculturating Group

The second conceptualized mediating factor is type of acculturating group. Berry et al. (1987) originally described five types of acculturating groups: immigrants, refugees, sojourners, native peoples, and ethnic groups. Berry in 1990 conceptualized three factors of distinguishing six acculturating groups; voluntary-involuntary, sedentary-migrant, and

permanent-temporary (Berry, 2017). These three factors can accommodate six types of acculturating groups; indigenous peoples, ethnocultural groups, immigrants, sojourners, refugees, and asylum seekers (Berry, 2017).

Mode of Acculturation

Berry et al. (1987) conceptualized four modes acculturation as significant moderating factors leading to acculturative stress; assimilation, separation, integration, and marginalization. These four modes later became strategies to acculturation in Berry's (1997) model. Berry et al. also described the two central issues facing acculturating individuals or groups from Berry and Kim's (1987) framework; the maintenance of cultural identity and contact/participation with the receiving society. The two issues of cultural maintenance and contact/participation within the receiving society became the two dimensions in Berry's bidimensional theory of acculturation.

Demographic, Social, and Psychological Characteristics

Berry et al. (1987) conceptualized that individual and group demographic, social, and psychological characteristics moderated acculturative stress. This included individual coping strategies, prior intercultural and contact experiences, education, age, and gender.

Summary of the Literature Review

In this chapter, I presented a review of the literature related to depression of immigrants and refugees, Asian Americans, and Burmese refugees resettling to the United States, acculturation theory, and acculturative stress. While it is often assumed Asian Americans have a lower prevalence of depression as compared to other racial populations, several authors have identified the Asian American group as over-

generalized and under-represented in research. Furthermore, there exist even sparser research on Asian American subgroups, to include Burmese refugees that have resettled into the United States. Existing studies, which have predominantly aggregated Asian American subgroups into the overarching category of Asian, have had contradicting results. Current research on immigrant and refugee populations have also shown contradicting results. There is sparse research on prevalence of depression within the chosen population for this study; Burmese refugees that have resettled within the United States.

There is a growing abundance of literature on the general subject of acculturation as it pertains to immigrants resettling in a new country. There has been less research that has been focused on acculturation of refugees and even less on Burmese refugees. The literature review has identified that acculturative stress impacts psychological well being of immigrant and refugee populations. As with the results of depression, the impact of acculturation on immigrant and refugee group have varied greatly and have often contradicted other studies. Acculturative stress can lead to either positive or negative results. While many studies have shown acculturative stress can lead to decreases in mental wellness, studies on Burmese refugees have shown strong resilience. Throughout the literature reviewed, I could not find articles analyzing the two variables of acculturation and acculturative stress on depression of Burmese refugees. While current acculturation frameworks recognize acculturative stress as a factor strongly impacting the outcome of the acculturation process, there is sparse research applying a mediation framework to specific Asian American populations and to the specific outcome of

depression. I have determined that gaps exist in the literature on the underrepresented Burmese Refugee Asian-American subgroup of which I have endeavored to narrow with the findings of this study. In the next chapter, I reviewed research methods proposed to study the relationships between the acculturation, acculturative stress, and depression of my sampled population.

Chapter 3: Research Method

Introduction

In this study, I functioned as an objective observer, independent from the actual study. The research process was deductive, and the results were used to explain the relationship between acculturation level, acculturative stress, and depression among Burmese refugees resettled in the United States. A quantitative design was appropriate to assess how degree of acculturation, acculturative stress, and length of stay in the United States influence the level of reported depression in the Burmese refugee population. A quantitative design additionally allowed for the analysis of a large sample. The unidimensional model would predict lower rates of depression based on longer times in the United States (Beiser, 1988). The bidimensional model would predict that depression is lower in individuals with higher levels of acculturation (Berry, 1997). This quantitative analysis could identify a predictive relationship between length of stay in the United States, degree of acculturation, mediating effect of acculturative stress, on depression of an understudied Asian American subgroup. Walden University's Institutional Review Board approval number for this study was 07-17-20-0664679 and it expired on July 16, 2021. Data was collected prior to expiration of this approval.

Purpose

The purpose of this study was to explore the relationship between (a) length of time in the United States, (b) level of acculturative stress, (c) degree of acculturation, and (d) level of depression in the Burmese refugee population. To address this purpose, I analyzed how acculturation, as moderated by length of time in the United States and

mediated by acculturative stress, relates to depression. I used a moderator and a mediator model to explain this relationship. I focused on two research questions.

Research Questions

The research questions were:

RQ1: Does length of time in the United States moderate the influence of acculturation on depression of Burmese refugees.

RQ2: Does acculturative stress mediate the influence of acculturation on depression of Burmese refugees.

Research Hypotheses

My first alternative hypothesis was: The length of time in the United States significantly moderates the influence of acculturation on depression of Burmese refugees. In answering this hypothesis, I was able to determine if acculturation is significantly related directly to depression of Burmese refugees, if acculturation is significantly related to length of time in the United States of Burmese refugees, and if length of time in the United States is significantly related to depression of Burmese refugees.

My second alternative hypothesis was: Acculturative stress significantly mediates the influence of acculturation level on depression of Burmese refugees. In answering this hypothesis, I was additionally able to determine if acculturation was significantly related directly to depression of Burmese refugees, if acculturation was significantly related to acculturative stress of Burmese refugees, and if acculturative stress was significantly related to depression of Burmese refugees.

Research Design and Approach

I used three existing self-report instruments to measure acculturation, acculturative stress, and depression of 50 Burmese refugees resettled in the United States. I additionally used a demographic questionnaire to collect information such as age, gender, and time in the United States. The self-report instruments and demographic questionnaire was translated into Burmese through a professional translation company and respondents were able to refer to both English and Burmese language when answering questions. The inventories and demographic questionnaire were first translated from English to Burmese, then translated back into English from a separate translation company to ensure accuracy. A certified medical Burmese-English interpreter was available during in-person inventories to clarify questions

I proposed a moderation model to address the research question. RQ1 asked: Does length of time in the United States moderate the influence of acculturation on depression of Burmese refugees? I proposed a mediation model to address the second research question, RQ2 asked: Does acculturative stress mediate the influence of acculturation on depression of Burmese refugees? This study determined if length of time significantly moderates the effect of acculturation on depression for the studied sample. This study additionally determined if the effect of acculturation (X) on depression (Y) was partially or entirely transmitted by acculturative stress (M). Warner (2013) opined that mediation occurs if the effect of an independent variable (X) on the dependent variable (Y) is partially or entirely transmitted by a third variable (M).

There are four conditions that are necessary for statistical mediation (Field, 2013; Warner, 2013): Firstly, the predictor variable (X , degree of acculturation in this study) must be significantly correlated with the outcome variable (Y , depression), and secondly, the predictor variable must be significantly correlated with the mediator variable (Field 2013). In RQ2, the mediating variable was acculturative stress. This was analyzed through Pearson's simple bivariate correlation coefficient (r). Thirdly, the relationship between the predictor variable and the dependent variable must be reduced substantially (partial mediation) or to nonsignificant (full mediation) after controlling for the relationship of the mediating variable on the dependent variable (Field, 2013, Warner, 2013). In this study, I applied multiple regression to determine if the relationship between acculturation and depression was reduced substantially (partial mediation) or to nonsignificant (full mediation). This was accomplished through controlling for the relationship between acculturative stress (RQ2), and the dependent variable (depression). Finally, the relationship between the mediating variable and the dependent variable must remain statistically significant (Field, 2013; Warner, 2013). I used multiple regression analysis to determine if the relationship between the mediating variable (acculturative stress) and depression remain statistically significant.

Methodology

Population and Sample

The population investigated in this study were first generation male and female Burmese refugees between the ages of 18 and 60 who had resettled in the United States. This study surveyed 50 Burmese refugees who have been resettled in San Antonio, an

urban area of South-Central Texas from which the study sample was drawn. The population of San Antonio totals approximately 1.49 million people with the breakdown consisting of 25% non-Hispanic Whites, 64% Hispanic, 7% African American, and 2.7% Asian (U.S. Census Bureau, 2018). San Antonio's population includes a large foreign born (14.2%) population. Under the federal Refugee Resettlement Program, Texas has received approximately 10% of all refugees that have resettled in the United States. Since 2010, over 10,000 refugees, 1,824 of which identify as resettled Burmese refugees, have resettled in San Antonio as legal permanent residents (Center for Refugee Services, 2019; Omaha World Herold, 2018). San Antonio was the first choice of location to draw my sample due to convenience and the anticipated ability to recruit 50 resettled Burmese participants.

Sample Size

I used a power analysis (G* Power 3.1.9.4) to calculate the minimum required sample size 43 for this study. To determine the sample size, I considered three factors: priori effect size, the power of the study, and level of significance. An effect size measures the magnitude of the observed effect between the independent and dependent variables (Field, 2013; Martin & Bridgman, 2012). For this study a moderate effect size of ($f^2 = .30$) was proposed. The power of the study defines the probability that the given test will find an effect (Field, 2013). A power of .8, or the 80% chance of detecting an effect, is generally used in quantitative studies (Field, 2013; Martin & Bridgman, 2012). Based on this recommendation, this study used a power of 80%. Level of significance, represented by *alpha*, is the probability of a Type 1 error (Martin & Bridgman, 2012), or

when the null hypothesis is rejected when it is in fact true. In psychological research, the value of *alpha* is often set at .05 ($p \leq .05$; Cowles, & Davis, 1982; Martin & Bridgeman, 2012). A more stringent *alpha* requires a larger sample size (Martin & Bridgman, 2012). At ($f^2 = .30$; $p = .05$) with a power of .08, I needed a sample ≥ 43 . In this study, I proposed a sample size of 50 Burmese refugees to improve better representation among gender and age.

Participants

The refugee participants in this study met the UNHCR's refugee definition as described in Chapter 2. I used stratified sampling to divide the group into two types of strata: age and gender. I included four age groups in the age strata: 18 to 29 years, 30 to 39 years, 40 to 49 years, and 50+ years. There were approximately 12 individuals per age group. There were 24 women and 26 males. The director of the Center for Refugee Services in San Antonio agreed to introduce me to Burmese refugee community leaders in San Antonio. I used referrals and snowball sampling until my required sample size was reached. All participants were informed in writing in both English and Burmese that their participation in the research study was voluntary and confidential. Data collection followed the research guidelines of the American Psychological Association. I obtained approval to conduct this study from the Walden University Institutional Review Board.

Instrumentation and Measures

This study used SL-ASIA, the RASI, the BDI-II, and a short demographic form. Independent variables (IV) included degree of acculturation, length of residence in the

United States, and acculturative stress. The dependent variable (DV) was depression scores as determined by the BDI-II.

Demographic Information Form

I used a demographic questionnaire to collect descriptive information from each participant (see Appendix A). Personal data included questions regarding age range, gender, time in the United States, refugee camp location prior to resettlement in the United States, time in the refugee camp, and self-identified ethnic group. This questionnaire was brief and could be completed in less than five minutes. The questions on the questionnaire were provided in both English and Burmese. No personal contact information will be collected to respect the privacy of the participants.

Suinn-Lew Asian Self Identity Acculturation Scale

The SL-ASIA is the leading measure of Asian American acculturation (Ponterotto, et al., 1998). This inventory (see Appendix B) has been utilized in research exploring relationships between depression and degree of acculturation in Asian populations (Kalibatseva, et al., 2014; Suinn, 2010). This inventory was designed to the degree of acculturation of Asian populations and generation status. The 1986 version is a unidimensional 21 item self-reported inventory that assess overall acculturation, enculturation, and cultural orientation across ten domains (Zhang & Tsai, 2014). These domains include social contacts and relationships, language, identify, media, food, cultural knowledge and exposure, history and traditions, emotion, family, and cultural values (Zhang & Tsai, 2014). The updated 1992 SL-ASIA inventory includes the original 21 questions and has added five additional optional questions to allow a researcher to

better assess on a bidimensional scale (Suinn, Ahuna, & Khoo, 1992). The 21-item SL-ASIA without the additional five questions, questions 22 to 26, has evidence of psychometric reliability and validity. The SL-ASIA had a reliability coefficient (Cronbach's alpha) between 0.68 to 0.91 in 12 coefficient alphas across nine studies (Ponterotto et al., 1998), with all but one above 0.70. The reliability coefficient average of 0.84 indicated an acceptable level of internal consistency. This study used the 21-item portion of the inventory to measure acculturation. This inventory will be provided in both English and Burmese. A certified medical Burmese-English interpreter was available during in-person inventories to clarify questions. No identifying information was collected to respect the privacy of the participants.

Riverside Acculturation Stress Inventory

Acculturative stress can develop in response to culture-specific stressors during the process of acculturation (Berry et al., 1987). Williams and Berry (1991) noted however that acculturation does not necessarily lead to a stress reaction. Literature acknowledges that acculturative stress can lead to depression, anxiety, and psychosomatic symptoms (Miller, Kim, & Benet-Martinez, 2011). Therefore, this study measured acculturative stress as a mediating variable using the RASI (see Appendix C).

The RASI is a 15-item inventory that is not specific to any one ethnic group. This inventory measures interpersonal, intellectual, professional, and structural pressures that influence acculturation (Miller et al., 2011). The RASI measures cultural challenges in five life domains; language skills, work challenges, intercultural relations, discrimination, and cultural/ethnic makeup of the community (Miller et al., 2011). The internal

consistency across seven studies had a reliability coefficient (Cronbach's alpha) between 0.79 to 0.87 (Chen, et al., 2008; Kim, Lee, Lee, & Miller, 2008; Miller et al., 2011). Specific to Asian Americans, in four coefficient alphas in two studies, the average coefficient alpha was 0.85 (Kim et al., 2008; Miller et al., 2011). Kim et al. (2008) and Miller et al. (2011) found the RASI to have high validity. This inventory was provided in both English and Burmese. A certified medical Burmese-English interpreter was available during in-person inventories to clarify questions. No identifying information was collected to respect the privacy of the participants.

Beck Depression Inventory II

This BDI-II (see Appendix D) consists of 21-item inventory to assess the intensity of depression (Pearson, 2019). The BDI-II aligns with the American Psychiatric Association's (1993) *Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition* (DSM-IV) criteria for depression and measures depression through both a continuous score (1-63) and a categorical score of minimal (0-13), mild (14-19), moderate (20-28), and severe (29-63) depression (Kalibatseva et al., 2014). In this study, depression was measured as a continuous variable. The BDI-II has a high internal consistency (Cronbach's alpha) of 0.91 in the general United States population (Pearson, 2019). The BDI-II has strong psychometric properties in translated Asian versions, to include Thai (Kalibatseva et al., 2014). There are no published versions of the BDI-II in Burmese. This inventory was provided in both English and Burmese. A certified medical Burmese-English interpreter was available during in-person inventories to clarify

questions No identifying information was collected to respect the privacy of the participants.

Research Procedure

I recruited participants through purposive sampling by contacting Burmese community leaders referred to me by the Director of Center for Refugee Services, and then through snowball sampling. Once an individual was referred to me, I followed up with a telephone call with the assistance of a Burmese interpreter to either schedule a face-to-face interview at their location of choosing, their church, or the option for me to mail them the inventories with a return envelope. I provided the participants with a consent letter in both English and Burmese. Participants received a \$15 gift card to a local supermarket for their time taken completing the inventories and demographic form. Prior to analysis, I ensured all inventories were complete and the desired number of responses had been collected.

Data Storage and Analysis

Collected data will be stored in researcher's home for analysis in a locked box when not in use and will be destroyed after one year. Data was anonymized, and no participants were identified by name. Frequency distributions and other descriptive statistics were used to analyze the demographic data. Regression analysis was used to analyze the mediator model. In steps one through three, simple regression analysis was used to ensure significant relationships exist between variables. In the fourth step, multiple regression was used to establish some form of mediation is supported if the effect of M (time in the United States or acculturative stress) remains significant after

controlling for X (acculturation). This study used Pearson's r correlation to measure the relationships between variables. Pearson's r correlation is appropriate as the variables are continuous variables. I used SPSS Version 27 to analyze data.

Chapter 4: Results

Results

The purpose of this study was to examine the relationships between acculturation and depression levels of resettled Burmese refugees residing in South Texas as moderated by length of time in the United States, and as mediated by acculturative stress. A moderation model addressed the following research questions:

RQ1: Does length of time in the United States moderate the influence of acculturation on depression of Burmese refugees.

A mediation model addressed the second research question,

RQ2: Does acculturative stress mediate the influence of acculturation on depression of Burmese refugees?

All analyses of this study were tested at the $p = 0.05$ level of significance using SPSS Statistics Version 27. The alternative hypotheses for this study were:

H_{11} : The length of time in the United States significantly moderates the influence of acculturation on depression of Burmese refugees.

H_{12} : Acculturative stress significantly mediates the influence of acculturation on depression of Burmese refugees.

The study sample consisted of $N = 50$. Data were collected between September 7, 2020, to October 28, 2020. Data collection terminated once the sample of $N = 50$ was attained. This section presents a description of the demographics, measures, participants, hypothesis analyses, results, and a summary of results.

Demographics

There were a total of 50 Burmese refugee participants in this study, and the ages of the participants ranged from 18 to 54 years old. There were 26 male and 24 female participants. The mean age of the participants was 32 years old, and the standard deviation was 10.70 (Table 1). The average number of years participants have been in the United States was 5.12 ($SD = 1.58$). Of the 50 Burmese refugee participants, 18 experienced transition through a refugee camp in Thailand and/or Malaysia, with the average number of years in a camp of 1.97 years.

I used frequencies and descriptive statistics to analyze the characteristics of the sample. Table 2 shows the sex, age, ethnic subgroup, years in refugee camp prior to entry to the United States, and years in the United States.

Measures

In addition to the demographics survey, participants were given three instruments to assess the degree of acculturation, acculturative stress level, and the severity of depression. All measures were available in both English and Burmese, and a certified medical Burmese/English interpreter was available. Table 3 presents means of acculturation, acculturative stress, and depression scale scores by sex, age, years in the United States, and ethnic subgroup stratification.

Suinn-Lew Asian Self Identity Acculturation Scale

The level of Burmese Refugee participants' acculturation was determined by using the SL-ASIA. This measure reliably measured the level of acculturation of Burmese refugee participants with a Cronbach's alpha of 0.95. This scale ranged from

1.00 (low acculturation) to 5.00 (high acculturation). Regarding dimensions of acculturation, low scores reflect Asian/Burmese identification, high scores reflect Western identification. A 3.00 would reflect biculturalism. The mean score was 2.41 showing a stronger identification to Asian/Burmese identification (Table 3). From a bidimensional perspective, 62% more strongly identified as culturally Asian/Burmese (1.00–2.49), 38% identified as bicultural (2.50–3.49), and none of the participants identified as assimilated into American culture.

Riverside Acculturation Stress Inventory

Acculturative stress scores of Burmese refugee participants were determined by the RASI. This measure reliably measured the level of acculturative stress of Burmese refugee participants with a Cronbach's alpha of 0.95. This scale ranged from 1.00 (low acculturative stress) to 5.00 (high acculturative stress). In this sample ($N = 50$), the mean score was 1.92, indicating an overall low level of acculturative stress with 60% between 1.00–1.99, 32% between 2.00–2.99, 6% between 3.00–3.99, and 2% between 4.00–5.00 (Table 3).

Beck Depression Inventory II

Depression scores of Burmese refugees were determined using the BDI-II. The BDI-II reliably measured the overall self-reported levels of Burmese refugee participants in this sample with a Cronbach's alpha of 0.91. In this sample ($N = 50$), 22% were considered to have depression, 12% perceived their depression as mild, 4% as moderate, 6% as severe, and 78% did not perceive themselves as having depression.

Analysis

Alternative hypotheses 1 was regarding the moderating effects of time in the United States on the relationship between acculturative stress and depression. Means, standard deviations, and correlation coefficients for all measures are shown in Table 4. Based on the simple bivariate correlations appearing in the table, acculturation did not have a statistically significant direct effect on the dependent (*Y*) variable depression, $r(48) = .146$, $r^2 = .021$, $p = .156$, and accounted for approximately 2% of the variability in depression (Figure 1). Time in the United States was not significantly correlated with depression ($r(48) = .074$, $p = .304$), and accounted for approximately .6% of the variability in depression (Figure 2). Acculturation and time in the United States were significantly and positively correlated ($r(48) = .267$, $p = .002$). The longer refugees resided in the United States, their acculturation level increased.

To test the Moderator Model, a multiple regression analysis was conducted, in which the depression scores served as the dependent variable, and predictor variables of acculturation and time in the United States and their (centered) interaction were simultaneously entered in the regression model. The overall regression model explained not significant variability in depression ($R^2 = 0.022$, $F(2, 47) = 0.53$, $p = .591$) - see Table 5 for regression analysis results. The direct effect of acculturation on depression was not significant and explained approximately 2% of the variability in depression. ($b = 1.759$, $p = .840$, $sr^2 = .09$). The direct impact of years in the United States on depression was not statistically significant, and accounted for approximately 1% of the variability in depression ($b = -.334$, $p = .933$, $sr^2 = .01$). Most notably, after controlling for the main

effects of acculturation and years in the United States, the interaction of acculturation and years in the United States was not significant ($b = .231, p = .888, sr^2 = .04$). The finding does not confirm the research hypothesis that years in the United States moderates the relationship between acculturation and depression.

Alternative hypotheses 2 posited the mediating effects of acculturative stress on the relationship between acculturation and depression. Specifically, I hypothesized acculturative stress significantly mediates the influence of acculturation on depression of Burmese refugees. In this study, a mediator model showed that among the sampled resettled Burmese refugees, acculturative stress did not mediate the relationship between acculturation and depression. Data in this analysis was derived from the SL-ASIA, the RASI, and the BDI-II. I used SPSS Version 24 to analyze data. This alternative hypothesis was not supported by the data.

Warner (2013) explained mediation occurs if the effect of an independent variable (X) on the dependent variable (Y) is partially or entirely transmitted by a third variable (M). The purpose of this study was to determine if the effect of acculturation (X) on depression (Y) is partially or entirely transmitted by acculturative stress (M). The research question was as follows:

RQ2: does acculturative stress mediate the influence of acculturation on depression of Burmese refugees?

The following hypotheses were answered in this analysis:

H_1 : Acculturative stress mediates the influence of acculturation on depression of Burmese refugees.

*H*₂: Acculturation is significantly related to acculturative stress.

*H*₃: Acculturation is significantly related to depression.

*H*₄: Acculturative stress is significantly related to depression.

The null hypotheses were:

*H*₀₁: Acculturative stress does not mediate the influence of acculturation on depression of Burmese refugees.

*H*₀₂: Acculturation is not significantly related to acculturative stress.

*H*₀₃: Acculturation is not significantly related to depression.

*H*₀₄: Acculturative stress is not significantly related to depression.

Simple bivariate correlation coefficients are presented in Table 6. In the first step of mediation, I estimated the direct effect between acculturation (*X*) and depression (*Y*) through bivariate regression. Acculturation did not have a statistically significant direct effect on the dependent (*Y*) variable depression, $r(48) = .146$, $r^2 = .021$, $p = .156$, and accounted for approximately 2% of the variance in depression (Figure 1). One of the four necessary conditions for statistical mediation is that the predictor variable (acculturation) must be significantly correlated with outcome variable (depression). Because this did not occur, the hypothesis that acculturative stress mediates the influence of acculturation on depression of Burmese refugees is not upheld. This supports the null hypothesis (*H*₀₂) acculturative stress does not mediate the influence of acculturation on depression of Burmese refugees. This also supports the null hypothesis (*H*₀₁) acculturation is not significantly related to depression.

I next estimated the direct effect between acculturation (X) and acculturative stress (M), also through bivariate regression. Acculturation had a significant (at the 0.05 level single tailed test) and negative direct effect on mediator (M) variable acculturative stress, $r(48) = -.409$, $r^2 = .167$, $p = .002$, and accounted for approximately 17% of the variance in acculturative stress (Figure 3), thereby representing a medium, and significant, effect size. As acculturation increases, acculturative stress decreases. This supports the hypothesis (H_2) that acculturation is significantly related to acculturative stress.

I estimated the direct effect between acculturative stress (M) and depression through multivariate regression. Acculturative stress did not have a statistically significant (at the 0.05 level single tailed test) direct effect on the independent variable depression, $r(48) = -.100$, $r^2 = .01$, $p = .244$, and accounted for approximately 1% of the variance (Figure 4) in depression. Since $p = .244$, the finding is not statistically significant. There is not a relationship. H_0 ($r = 0$) is accepted.

The overall results of the Multiple Regression Analysis indicated that the variables acculturation and acculturative stress were not significant predictors of depression, $R = .152$, $R^2 = .023$, ($F(2, 47) = 0.558$, $p < .567$, accounting for approximately 3% of the variance in depression.

Summary of Findings

The focus of this study was to find the relationship between acculturation and depression levels of Burmese refugees that have resettled in the United States. It was first hypothesized there would be significant moderating effects of time in the United States

on depression. This hypothesis was not supported by the data. The direct effect of acculturation on depression was not significant and explained approximately 2% of the variability in depression, ($b = 1.759, p = .840, sr2 = .09$). After controlling for the main effects of acculturation and years in the United States, the interaction of acculturation and years in the United States was not significant ($b = .231, p = .888, sr2 = .04$).

It was next hypothesized acculturative stress would mediate the influence of acculturation on depression of Burmese refugees. A multiple regression analysis was used to determine if depression levels could be predicted from acculturation level as mediated by acculturative stress, $r(48) = .146, r^2 = .021, p = .156$. The null hypotheses is upheld and there is no relationship between acculturative stress and depression levels. Additionally, increased acculturation was shown to correlate to decreased acculturative stress, $r(48) = -.409, r^2 = .167, p = .002$. There was a statistically significant correlation between acculturation and acculturative stress. There was no relationship between acculturative stress and depression, $r(48) = -.100, r^2 = .01, p = .244$. The meditation effects of acculturative stress between acculturation levels and depression levels were not statistically significant, $R = .152, R^2 = .023, (F(2, 47) = 0.558, p = .567$. This hypothesis was not supported by the data.

Table 1

Descriptive Statistics for Study Population

	N	Minimum	Maximum	Mean	Std. deviation
Age	50	18	54	32	10.70
Years in the U.S.	50	1	10	5.12	1.58
Years in a camp	18	.08	5	1.97	

Table 2*Frequency and Percentages of Demographic Variables*

	Frequency	Percent
Sex		
Male	26	52
Female	24	48
Age		
18 - 29	23	46
30 - 39	11	22
40 - 49	13	26
50 - 59	3	6
Ethnic subgroup		
Burman	13	26
Rohingya	30	60
Karen	2	4
Karenni	2	4
Kachin	1	2
Chin	1	2
Shan	1	2
Years in a refugee camp		
0	31	62
< 1	5	10
1	5	10
2	3	6
3	2	4
4	2	4
5 +	2	4
Years in U.S.		
1	1	2
2	2	4
3	2	4
4	11	22
5	18	36
6	9	18
7	4	8
8+	3	6

Table 3*Means of Acculturation, Acculturative Stress, and Depression Scale Scores*

	<i>n</i>	Acculturation	Acculturative stress	Depression
All	50	2.41	1.92	9.58
Sex				
Male	26	2.44	2.07	8.16
Female	24	2.37	1.77	10.63
Age				
18 - 29	23	2.56	2.05	8.35
30 - 39	11	2.23	1.86	8.36
40 - 49	13	2.38	1.69	12.69
50 - 59	3	1.95	2.18	10.0
Years in US				
1	1	1.48	2.27	4.00
2	2	2.08	1.55	1.00
3	2	2.76	1.30	15.50
4	11	2.28	2.12	10.36
5	18	2.46	1.79	8.61
6	9	2.51	1.99	12.98
7	4	2.38	2.36	7.00
8+	3	2.59	1.80	9.67
Subethnic group				
Burman	13	2.67	1.75	11.62
Rohingya	30	2.29	2.09	8.87
Karen	2	2.62	1.27	14.50
Karenni	2	2.36	1.20	4.00
Kachin	1	2.48	2.93	8.00
Chin	1	2.10	1.40	6.00
Shan	1	2.62	1.40	11.00

Table 4*Means, Standard Deviations, and Correlations*

	<i>M</i>	<i>SD</i>	Depression	Acculturation	Number of years in US	Acculturative stress
Depression	9.58	8.87	1	0.146	0.074	-0.1
Acculturation	2.41	0.41		1	0.267**	-.409
Number of years in US	5.14	1.58			1	.052
Acculturative stress	1.92	0.74				1

Note. * $p < .05$, ** $p < .01$ **Table 5***Results for the multiple regression model*

	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% <i>CI</i> for <i>b</i>	<i>sr</i> ²	
Acculturation	1.759	8.687	0.203	0.840	-15.73	19.25	00.09
Number of years in US	-.334	3.976	-0.084	0.933	-8.34	7.67	00.01
Interaction	0.231	1.634	0.141	0.888	-3.06	3.52	00.04

Table 6*Means, Standard Deviations, and Intercorrelations*

<i>N</i> = 50	<i>M</i>	<i>SD</i>	Pearson <i>r</i>	
			(2)	(3)
Acculturation (1)	02.41	00.41	.002**	.156
Acculturative stress (2)	01.92	00.74		.244
Depression (3)	09.58	08.87		

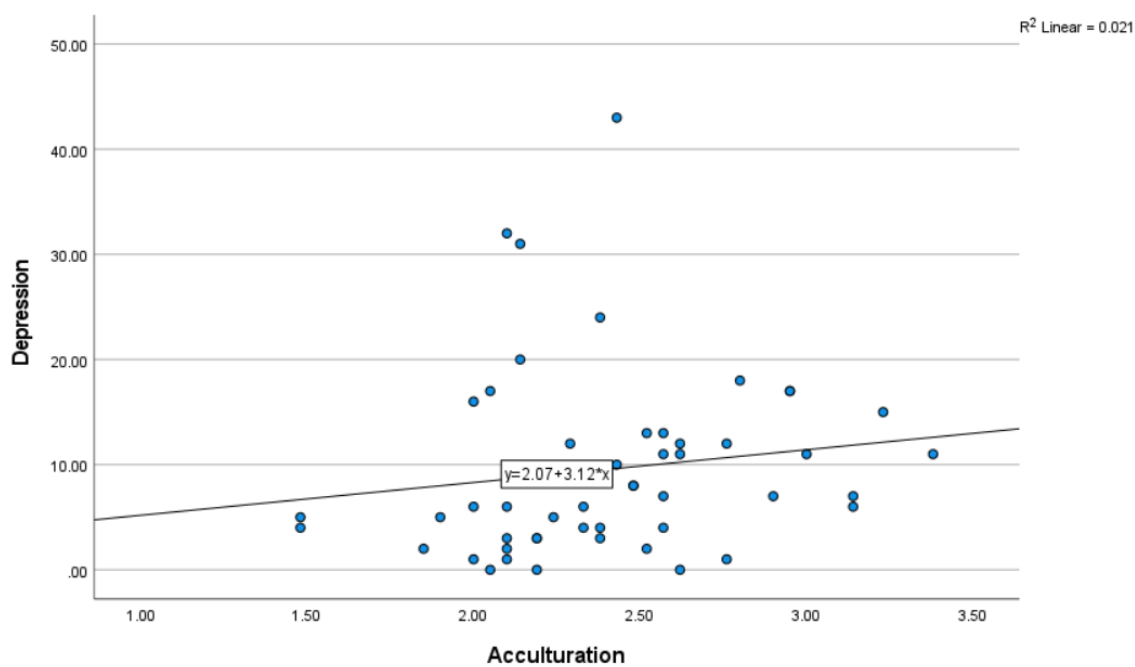
Note. ** $p < .01$ **Figure 1***Scatterplot for Relation Between Acculturation and Depression, With R^2* 

Figure 2

Scatterplot for Relation Between Years in United States and Depression, With R²

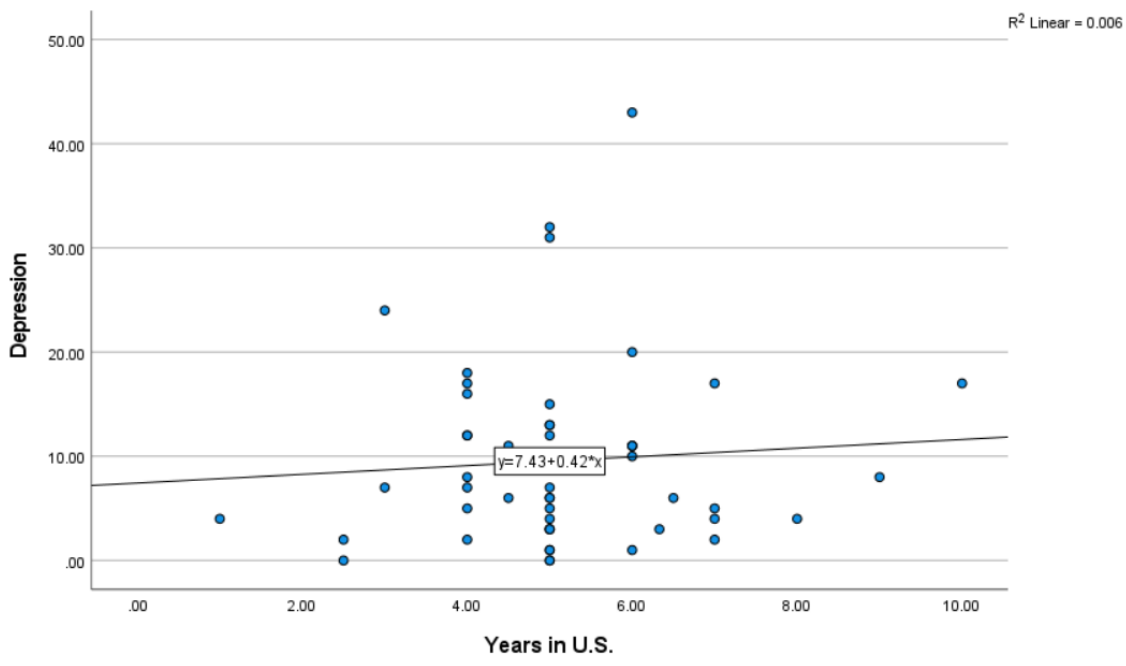


Figure 3

Scatterplot for Relation Between Acculturation and Acculturative Stress, With R^2

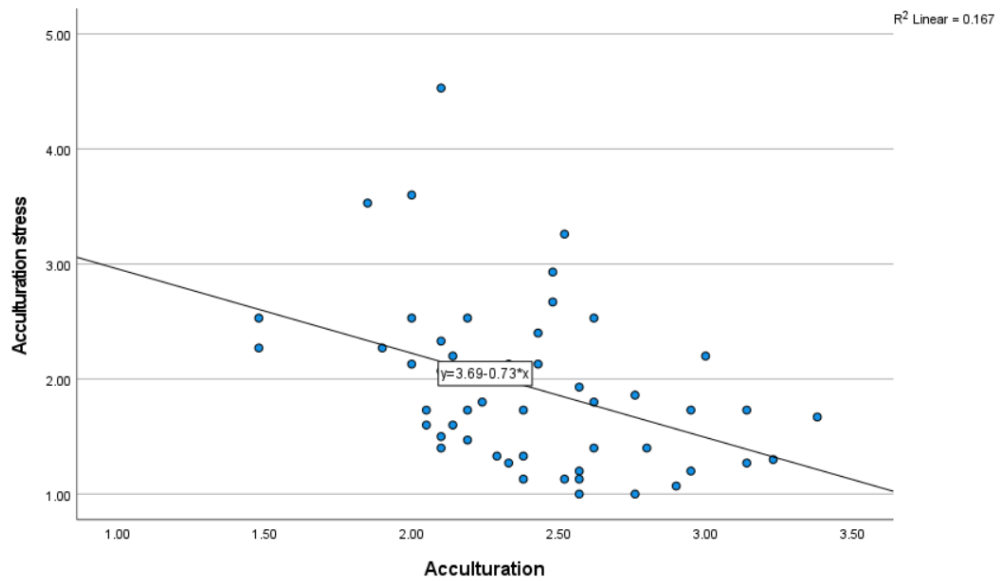
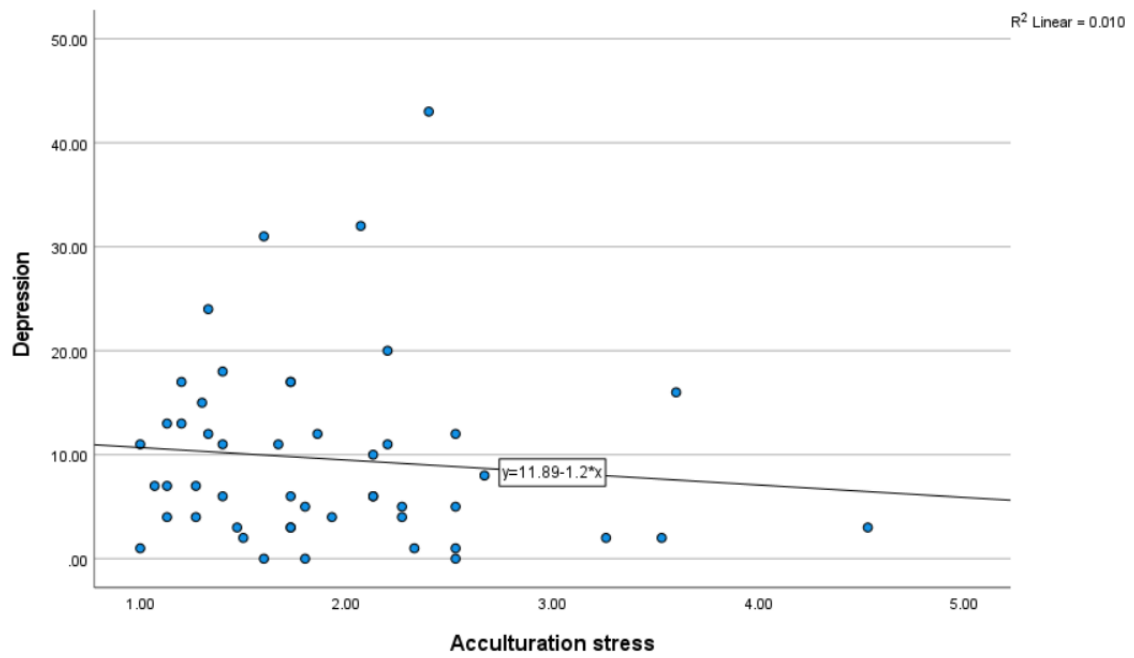


Figure 4

Scatterplot for Relation Between Acculturative Stress and Depression, With R^2



Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The objective of this study was three-fold: (a) to assess the prevalence and severity of depression among the Burmese refugee population in San Antonio, Texas, and by way of example, the United States; (b) to clarify inconsistencies in the literature regarding the relationship between acculturation and depression among Asian Americans and refugees as applied to Burmese refugees; and (c) to fill a gap in the literature by quantitatively evaluating whether time in the United States moderates, and acculturative stress mediates, the relationship between acculturation and depression among Burmese refugees relocated to the United States.

Based on data extrapolated from primary research on Burmese refugee participants ($N = 50$), results of this study indicated that the prevalence of depression was higher among Burmese refugees as compared to the national average (Objective 1). As a refugee subgroup, Burmese refugees in this study experienced less depression (22%) as compared to most studies of refugees in the literature and similar to that of the general immigrant population in the United States. As compared to other Asian American subgroups, Burmese American refugees had about two times higher prevalence of depression. Prevalence of depression among Burmese refugees in this study were lower than the general refugee prevalence rates but higher than the various other subgroups of Asian Americans (Objective 2).

As highlighted in the beginning of this study, Asian Americans, particularly Asian American subgroups, comprise one of the most widely understudied ethnic groups with

respect to a variety of refugee and immigration issues. In most studies analyzing mental health of various ethnicities, Asian Americans have historically been aggregated into the single group Asian American, and studies that did focus on a particular Asian American subgroup were on larger subpopulations such as Chinese, Japanese, and Korean Americans. Sue et al. (2012) suggested that more epidemiological studies need to be conducted to account for Asian American groups that have been inadequately sampled. Furthermore, in reviewing available literature, there were no existing studies that focused on the relationships of acculturation, acculturative stress, and depression of resettled Burmese refugees in the United States. This study filled a gap in literature by examining the roles of acculturation with acculturative stress as a mediator, and time in the United States as a moderator, on levels of depression among the Asian American subgroup of resettled Burmese refugees (Objective 3).

The purpose of this study was to explore the relationship between (a) length of time in the United States, (b) level of acculturative stress, (c) degree of acculturation, and (d) level of depression in the Burmese refugee population. The research questions and the hypotheses were developed to better understand this relationship. When time in the United States was evaluated for any moderating effect on the statistical relationship between acculturation and depression, there was no statistically significant moderation effect with time in the United States between acculturation and depression. Also, because there was also no statistically significant relationship between acculturation and depression, no analysis to understand the mediating effect of acculturative stress was needed.

Interpretations of Findings

The results from this study indicate a lower prevalence of depression among Burmese refugees compared with other refugees, mixed results of Burmese refugees, similar prevalence to other immigrants, and higher prevalence as compared to other Asian Americans. In this study ($N = 50$), the prevalence of depression of Burmese refugees resettled in the United States was 22%. This prevalence is inconsistent with Lindert et al. (2009) who found refugee populations experienced significantly higher prevalence rates of depression at 44%. Consistent with refugees in general, but not consistent with this current study, Cardozo et al. (2004) found in their study of Burmese refugees the prevalence of depression at 42%. However, one previous study by Kim (2018) had similar results for prevalence (21.2%) of depression among Burmese refugees. Studies on prevalence of immigrants have been inconsistent, ranging between 12% (Wright et al., 2018) to approximately 20% (Foo et al., 2018; Lindert et al., 2009). Literature has also suggested that Asian immigrants have a lower prevalence than other immigrant populations, and Bergan and Saharso (2010) found Asian immigrants to be 16% less likely to have depression than European American immigrants. Results of this study further indicated the studied sample of Burmese refugees (22%) had more than twice the prevalence of American adults aged 20 and over (8%). As compared to other Asian Americans, Burmese refugees have about double the prevalence of depression. Studies have shown prevalence of depression among Asian Americans in general to be between 9% to 12% (NESARC-III, 2013; Hasin et al., 2018; Takeuchi et al., 2007).

Findings in this study correlating increased acculturation to decreased depression were not consistent with the literature reviewed. Berry (1997), Organista et al. (2002), Yeong & Schwartz (1986), and Zheng & Berry (1991) were all in agreement that increased acculturation results in improved mental health and reduced depression. Berry (2006) later argued a more bicultural level of acculturation, higher levels of integration and competence in both heritage and majority society culture result in decreased depression. Sue (2002) wrote that while research generally supports the idea that higher degrees of acculturation improve psychological well-being, other research has also brought out inconsistencies to this assumption. This study can add to the research another inconsistency to this assumption, that is, that there is no statistical relationship between acculturation and depression.

In my first research question, I asked the following:

RQ1: Does length of time in the United States moderate the influence of acculturation on depression of Burmese refugees?

While there is a significant positive relationship between acculturation and time in the United States, there is no statistical moderation relationship between acculturation and depression. That is, as Burmese refugees continue life in the United States, they tend to move towards Western culture, but they do not have the lower prevalence of depression as the general population in the United States.

In my second research question, I asked the following:

RQ2: Does acculturative stress mediate the influence of acculturation on depression of Burmese refugees?

Reviewed literature indicated a positive correlation between acculturative stress in immigrants to depression (Romero & Pina-Watson, 2017). Suinn (2009, 2010) and Hwang and Ting (2008) argued acculturative stress may be a significant mediating factor in the acculturation process and recommended further research with acculturative stress as a mediating pathway. While results of this survey indicated a statistically significant correlation between increased acculturation and decreased acculturative stress, there was no statistically significant relationship between acculturative stress and depression.

Limitations of Study

Limitations of the study included the cross-sectional design, the limited size of the sample, unavailability of preexisting inventories to measure acculturation, acculturative stress, and depression in the native Burmese language, the nature of self-reporting inventories and social desirability bias, the COVID 19 pandemic, and external validity outside of Burmese refugees.

Cross-sectional study designs capture point-in-time or time-bounded information from a population. By nature of design, cross-sectional studies have lower internal validity. Because the outcome and exposure variables are measured at the same time, conclusions regarding the direction and temporality of the identified association between acculturation and depression cannot be determined.

The second limitation to this study was the low number of participants ($N = 50$). The study was initially going to include 100 refugee participants. Due to the COVID pandemic restrictions in place, there were fewer opportunities to find participants to collect data. I used a power analysis (G* Power 3.1.9.4) to calculate the minimum

required sample size 43 for this study. While 43 participants were considered adequate through power analysis, 100 would have increased internal validity and reduced the margin of error. To obtain the 50 participants in this study, I used convenience sampling and snowball sampling. Both of these methods may have had some selection biases and social desirability biases. Due to stigma of mental illness in Burma and Southeast Asia in general, participants may have been inclined to present themselves more positively and minimized their responses concerning depression and acculturative stress.

A third limitation was the unavailability of existing inventories (BDI II, SL-ASIA, RASI) in native Burmese languages. To compensate for this, I had the inventories translated into Burmese and translated back into English through a professional translation service. In addition, a Burmese/English medical interpreter was available during the administration of inventories. Inventories were given in both English and Burmese languages.

A fourth limitation identified was that the data collection was collected during the wide-spread shutdown and social distancing restrictions of the COVID 19 pandemic. Limitations ranged from increased difficulties of obtaining an adequate sample size to possible effects of the pandemic on point-in-time effects on depression. Serafini et al. (2020) found that immigrant outpatients showed increased depression during COVID-19 and psychological stress directly associated with the COVID-19 pandemic.

Finally, there are limitations to external validity. Because this study was limited to 1st generation Burmese refugees resettled in the United States, it lacks generalizability to Burmese refugees in other geographic areas, other refugees, or ethnicities.

Recommendations

Sue et al. (2012) suggested that more epidemiological studies need to be conducted to account for Asian American groups that have been inadequately sampled. Suinn (2009) has specifically recommended research on mediating variables to acculturation on outcomes. Due to the scarcity of research on both the Asian American subgroup of Burmese refugees and the scarcity of research on mediating variables to acculturation, future studies with a larger population sample on this particular population would add validity to this study's findings. Also, a similar study examining the influence of acculturative stress and time in the United States between acculturation and depression once possible confounding effects of the COVID-19 pandemic may be ruled out may provide a better understanding the relationship between these particular variables.

This study identified a significant relationship between acculturation and acculturative stress. While Sam and Berry (2016) stated that acculturative stress is not inherent to the acculturation process, this study showed in this particular sample, there was a relationship. Suinn (2010) argued that acculturative stress may serve as a mediating pathway for depression among refugee and immigrant groups. While this study did not support this argument in the Burmese refugees sampled, additional studies can add or detract from Suinn's (2010) idea that acculturative stress is a mediating pathway, in both Burmese refugees and other immigrant and refugee groups. Depression is only one facet of mental health. John et al. (2012) recommend a need for further research to explore the mechanisms by which acculturative stress may negatively influence overall mental health. As a relationship has been shown between acculturative stress and acculturation

within the Burmese refugee sample, acculturative stress may be a mediating pathway to anxiety, PTSD, or other mental health disorders. This relationship may be further examined in future studies alone, or with possible mediating effects on other aspects of mental health, such as anxiety or PTSD.

Implications

The results of this quantitative study contribute to the field's limited understanding of Burmese refugees experiences with acculturation, acculturative stress, and depression. Acculturation was not significantly related to depression in this sample. Results indicate that Burmese refugees are experiencing depression rates higher than that of the general United States population, and Asian Americans in general. However, levels of acculturation do not appear to play a role in that experience – either to protect from depression or increase its incidence. Culturally relevant research can provide data on the unique experiences of diverse and understudied groups and inform policy makers on potential areas to address in vulnerable populations.

While acculturation may not be a significant variable in the Burmese refugees sampled, the higher incidence of depression may be addressed by policy makers and advocates for this population. This study found a statistically significant relationship between acculturation and acculturative stress. Several authors have found that acculturative stress directly impacts mental health (Aldwin, 2007; Lazarus, 1997; Romero & Pina-Watson, 2017). While there is no relation between acculturation and depression, the relationship between acculturation and acculturative stress may also be addressed by policy makers and advocates for this population.

Conclusions

The purpose of this research study was to explore the relationship between level of acculturation on depression of Burmese refugees resettled in the United States, to include consideration of time in the United States as a moderating variable and acculturative stress as a mediating variable. I addressed the literature gap concerning the relationship between acculturation, time in the United States, acculturative stress, and depression in Burmese refugees, an understudied sub-group in the Asian American population. While there was no significant relationship between acculturation and depression, this study's finding revealed a significant relationship between acculturation and acculturative stress, as well as better understanding of depression among Burmese refugees resettled in the United States.

This study also adds to empirical research on generally accepted acculturation theory as well as contradictory results on the relationship of acculturation and mental health proposed by acculturation theories. Consistent with previous research, this study found that increased time in the United States resulted in increased acculturation. While there are inconsistencies in regard to the relationship between acculturation and acculturative stress, this study was consistent with Berry (1997, 2006) and Suinn (2010), that higher levels of acculturation lead to lower levels of acculturative stress.

Acculturation theories theorize that increased acculturation leads to decreased anxiety and depression. This study was not consistent with Berry's theory or Suinn's argument.

As stated above, data on acculturation, acculturative stress, and depression was collected during the initial months of the COVID 19 pandemic. This may have influenced

the dependent variable of depression, as suggested by Serafini et al. (2020). Results may not reflect degree of depression during a non-pandemic environment. Understanding gained in this study helps to better understand the relationship between acculturation and depression of the understudied Asian American Burmese American refugees and will add to the scarce currently available studies on this understudied group.

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Appendix A: Demographic Questionnaire

လူဦးရေစာရင်းဆိုရာ မေးမြန်းမိန်း

1. How old are you? _____
သင့်အသက် ဘယ်လောက်? _____

2. Are you ____ male or ____ female?
သင့် _____ ယောက်ဖတံလေး သို့မဟုတ် _____ မိန်းကလေး ဖဖစ်ပါသလား?

3. Did you come to the United States through ____ Thailand, ____ Malaysia, or _____ India?
သင့် _____ ထိုင်းနိုင်ငံ _____ မလေးရှားနိုင်ငံ သို့မဟုတ် _____ အိန္ဒိယနိုင်ငံမှ တစ်ဆင့် အမေရိကန်နိုင်ငံသို့ လာရောက်ပါသလား?

4. How many years were you in a refugee camp? _____
သင့် ဒုက္ခသည်စခန်းတွင် ဘယ်နှစ်နှစ် ကာ နေထိုင်ပါသလဲ? _____

5. How many years have you lived in the United States? _____
သင့် အမေရိကန်နိုင်ငံတွင် နေထိုင်သည့် ဘယ်လောက် ကာ ဖဖစ်ပါသလဲ? _____

6. Ethnicity: a. Burman b. Karen c. Karenni d. Shan e. Kachin f. Chin g. Rakhine
လူမျိုးစု: h. Mon i. Other _____
a. ဗမာ b. ကရင် c. ကရင်နီ d. ရှမ်း e. ကချင် f. ချင်း g. ရခိုင်
h. မြန် i. အခြား _____

Appendix B: Suinn-Lew Asian Self Identity Acculturation Scale

1. What language can you speak?

သင့် မညွှန်ဘာသာစကားမ်း ဝေဟနိငါသလဲ?

- 1. Asian language only (Burmese, Karen, Shan, Kachin, Mon, Chin, Rakhine)
အရှာသာစကားမ်းသာ (ဗမာ၊ ကရင်၊ ရှမ်း၊ ကခ်၊ မြန်၊ ခင်း၊ ရခိုင်)
- 2. Mostly Asian language and some English
အမ်းအားဗဖင့် အရှာသာစကားတတီး အဂလိဟာသာစကား အနည်းငယ်
- 3. Asian language and English equally (Bilingual)
အရှာသာစကားနှင့် အဂလိဟာသာစကား ဝေဟတတည (ဝှာသာဝေဟနိငါ)
- 4. Mostly English, some Asian language
အမ်းအားဗဖင့် အဂလိဟာသာစကားတတီး အရှာသာစကားအနည်းငယ်
- 5. Only English
အဂလိဟာသာစကားသာ

2. What language do you prefer?

သင့် မညွှန်ဘာသာစကားကို ဝှာကွါသလဲ?

- 1. Asian language only (Burmese, Karen, Shan, Kachin, Mon, Chin, Rakhine)
အရှာသာစကားမ်းသာ (ဗမာ၊ ကရင်၊ ရှမ်း၊ ကခ်၊ မြန်၊ ခင်း၊ ရခိုင်)
- 2. Mostly Asian language and some English
အမ်းအားဗဖင့် အရှာသာစကားတတီး အဂလိဟာသာစကားအနည်းငယ်
- 3. Asian language and English equally (Bilingual)
အရှာသာစကားနှင့် အဂလိဟာသာစကား ဝေဟတတည (ဝှာသာဝေဟနိငါ)
- 4. Mostly English, some Asian language
အမ်းအားဗဖင့် အဂလိဟာသာစကားတတီး အရှာသာစကားအနည်းငယ်
- 5. Only English
အဂလိဟာသာစကားသာ

3. How do you identify yourself?

သင့်ကိုယ်မညွှန် သတို့ကွါသလဲ?

- 1. Oriental
အရှာတိုင်းသား
- 2. Asian
အရှာတိုင်းသား
- 3. Asian-American
အရှာ-အမရိကန်

- 4. Burmese American
ဗမန္တာ အေမရိကန်
- 5. American
အေမရိကန်

4. Which identification does (did) your mother use?
သင့်၏မိခင်သည် မညီညွတ်စွာ တုံ့တင် အသုံးပြုပါသလဲ?

- 1. Oriental
အရှေ့တိုင်းသား
- 2. Asian
အာရှတိုင်းသား
- 3. Asian-American
အာရှ-အေမရိကန်
- 4. Burmese American
ဗမန္တာ အေမရိကန်
- 5. American
အေမရိကန်

5. Which identification does (did) your father use?
သင့်၏ဖခင်သည် မညီညွတ်စွာ တုံ့တင် အသုံးပြုပါသလဲ?

- 1. Oriental
အရှေ့တိုင်းသား
- 2. Asian
အာရှတိုင်းသား
- 3. Asian-American
အာရှ-အေမရိကန်
- 4. Burmese American
ဗမန္တာ အေမရိကန်
- 5. American
အေမရိကန်

6. What was the ethnic origin of the friends and peers you had, as a child up to age 6?
အသက် 6 နှစ်အရွယ်ရှိသည့် သင့်၏ သူငယ်ချင်းများ၏ ကစားဖက်ကစားဖက်ကွဲများ၏ လူမျိုးစုံမျိုးရင်းသည် ဘာလဲ?

- 1. Almost all Asians, Asian-Americans
အားလုံးနီးပါးမှာ အာရှတိုင်းသား၊ အာရှ-အေမရိကန်
- 2. Mostly Asians, Asian-Americans
အများစုမှာ အာရှတိုင်းသား၊ အာရှ-အေမရိကန်

3. About equally Asian groups and White groups
အာရှတိုင်းသားအုပ်စုများနှင့် လူမီအုပ်စု ညီတူမိတ်တူ

4. Mostly Whites, Blacks, Hispanics, or other non-Asian ethnic groups
အမ်းစုမှာ လူမီ၊ လူမဲ၊ လက်ကွေ့မရိကန် သို့မဟုတ် အစား

အာရှတိုင်းသားမဟုတ်သောလူမျိုးစုအုပ်စု

5. Almost all Whites, Blacks, Hispanics, or other non-Asian ethnic groups
အားလုံးနီးပါးမှာ လူမီ၊ လူမဲ၊ လက်ကွေ့မရိကန် သို့မဟုတ် အစား
အာရှတိုင်းသားမဟုတ်သော လူမျိုးစုအုပ်စု

7. What was the ethnic origin of the friends and peers you had, as a child from 6 to 18?
အသက် ၆ နှစ်မှ ၁၈ နှစ်အကြားရှိ သင့်၏ သူငယ်ချင်းများ၏ ကားမားကားမား၏ လူမျိုးစုများသည်
ဘာလဲ?

1. Almost all Asians, Asian-Americans
အားလုံးနီးပါးမှာ အာရှတိုင်းသား၊ အာရှ-အေမရိကန်

2. Mostly Asians, Asian-Americans
အမ်းစုမှာ အာရှတိုင်းသား၊ အာရှ-အေမရိကန်

3. About equally Asian groups and White groups
အာရှတိုင်းသားအုပ်စုများနှင့် လူမီအုပ်စု ညီတူမိတ်တူ

4. Mostly Whites, Blacks, Hispanics, or other non-Asian ethnic groups
အမ်းစုမှာ လူမီ၊ လူမဲ၊ လက်ကွေ့မရိကန် သို့မဟုတ် အစား

အာရှတိုင်းသားမဟုတ်သောလူမျိုးစုအုပ်စု

5. Almost all Whites, Blacks, Hispanics, or other non-Asian ethnic groups
အားလုံးနီးပါးမှာ လူမီ၊ လူမဲ၊ လက်ကွေ့မရိကန် သို့မဟုတ် အစား
အာရှတိုင်းသားမဟုတ်သော လူမျိုးစုအုပ်စု

8. Whom do you now associate with in the community?
ယခုအခါ လူများအသိုက်အဝန်းကြောင့် သင့် မညှို့တို့များ ပတ္တကွဲ ရှိပါသလဲ?

1. Almost all Asians, Asian-Americans
အားလုံးနီးပါးမှာ အာရှတိုင်းသား၊ အာရှ-အေမရိကန်

2. Mostly Asians, Asian-Americans
အမ်းစုမှာ အာရှတိုင်းသား၊ အာရှ-အေမရိကန်

3. About equally Asian groups and White groups
အာရှတိုင်းသားအုပ်စုများနှင့် လူမီအုပ်စု ညီတူမိတ်တူ

4. Mostly Whites, Blacks, Hispanics, or other non-Asian ethnic groups

အမ်းစုမှာ လူဖတ်၊ လူမဲ၊ လက္ခဏာမရိကန သို့မဟုတ် အစား
အရွတ်ိုင်းသားမဟုတ်သောလူမ်းစိုအုပူ

- 5. Almost all Whites, Blacks, Hispanics, or other non-Asian ethnic groups
အားလုံးနီးပါးမှာ လူဖတ်၊ လူမဲ၊ လက္ခဏာမရိကန သို့မဟုတ် အစား
အရွတ်ိုင်းသားမဟုတ်သော လူမ်းစိုအုပူ

9. If you could pick, whom would you prefer to associate with in the community?
သင့်ရဲ့ရင်းနှီးမှုမညီပါက သင့် အသိုင်းအဝန်းကြောင့် မညီတိုင်းပွင့်ပွင့် ပတ္တကန့် ဆေးရွှေပါသလဲ?

- 1. Almost all Asians, Asian-Americans
အားလုံးနီးပါးမှာ အရွတ်ိုင်းသား၊ အရွ-အေမရိကန
- 2. Mostly Asians, Asian-Americans
အမ်းစုမှာ အရွတ်ိုင်းသား၊ အရွ-အေမရိကန
- 3. About equally Asian groups and White groups
အရွတ်ိုင်းသားအုပွင့်ပွင့် လူဖတ်အုပူ ညီတူမ့်တူ
- 4. Mostly Whites, Blacks, Hispanics, or other non-Asian ethnic groups
အမ်းစုမှာ လူဖတ်၊ လူမဲ၊ လက္ခဏာမရိကန သို့မဟုတ် အစား

အရွတ်ိုင်းသားမဟုတ်သောလူမ်းစိုအုပူ

- 5. Almost all Whites, Blacks, Hispanics, or other non-Asian ethnic groups
အားလုံးနီးပါးမှာ လူဖတ်၊ လူမဲ၊ လက္ခဏာမရိကန သို့မဟုတ် အစား
အရွတ်ိုင်းသားမဟုတ်သော လူမ်းစိုအုပူ

10. What is your music preference?
သင့်ပွင့်ပွင့်ကတသောဂီတသညာ ဘာလဲ?

- 1. Asian music
အရွဂီတ
- 2. Mostly Asian
အမ်းစုမှာ အရွဂီတ
- 3. Equally Asian and English
အရွပွင့်ပွင့် အဂလိပီတ ညီတူမ့်တူ
- 4. Mostly English
အမ်းစုမှာ အဂလိပီတ
- 5. English only
အဂလိပီတသာ

11. What is your movie preference?

သင့် ဗဟိုကိန်းဝတ္ထုကုသောရုပုံဓာတ်ဘာလဲ?

- 1. Asian-Language movies only
အာရှစကားစေဟရုပုံဓာတ်
- 2. Asian-Language movies mostly
အများစုမှာ အာရှစကားစေဟရုပုံဓာတ်
- 3. Equally Asian/English English-language movies
အာရှ/အဂၤလိပ် အဂၤလိပ်စကားစေဟရုပုံ ညီတူမွဲတူ
- 4. Mostly English-language movies only
အများစုမှာ အဂၤလိပ်စကားစေဟရုပုံဓာတ်
- 5. English-language movies only
အဂၤလိပ်စကားစေဟရုပုံဓာတ်

12. What generation are you?

သင့်ညီ မညီညွမ်းမိဆီကု ဗဟိုဘာလဲ?

1. 1st Generation = I was born in Burma, Thailand, Malaysia, or country outside of the U.S.

ပထမမိဆီကု = ကကြးဝုညညီ ဗမန္တာဝုညီ၊ ထိုင်းဝုညီ၊ မလေးရှားဝုညီတြး သိုမဟုတု အေမရိကနုဝုညီ ဗပဝုစေဟစေဟ အစားဝုညီတြး မြးဖြးသည။

2. 2nd Generation = I was born in U.S., either parent was born in Asia or country other than U.S.

ဒုတိယမိဆီကု = မိဘမ်းသည အာရှတိုကြး သိုမဟုတု အေမရိကနုပဝုဝုညီတြး မြးဖြးစီး ကကြးဝုညီ အေမရိကနုဝုညီတြး မြးဖြးသည။

13. Where were you raised?

သင့် မညီညွမ်းနေရာတြး ဗဟိုဘာလဲ?

- 1. In Asia only (Burma, Thailand, **Thailand**, India)
အာရှတိုကြး (ဗမန္တာ၊ ထိုင်း၊ **မလေးရှား**၊ အိန္ဒိယ)
- 2. Mostly in Asia, some in U.S.
အများစုမှာ အာရှတိုကြးစီး အိန္ဒိယ အေမရိကနု
- 3. Equally in Asia and U.S.
အာရှတိုကြးဝုညီ အေမရိကနု ညီတူမွဲတူ
- 4. Mostly in U.S., some in Asia
အများစုမှာ အေမရိကနုဝုညီ၊ အိန္ဒိယ အာရှတိုကြး
- 5. In U.S. only
အေမရိကနုဝုညီသာ

14. What contact have you had with Asia?

အာရှဒိုင်းငံများ၌ သင့် မညီညွတ်အဆန္ဒကြွယ်၍ ရှိသလဲ?

- 1. Raised one year or more in Asia (Burma, Thailand, Malaysia, India)
အာရှတိုက်၌ တစ်နှစ်ထက် ပိုမိုကြာရှည်စွာ နေထိုင်ခဲ့သည့် (ဗမာ၊ ထိုင်း၊ မလေးရှား၊ အိန္ဒိယ)
- 2. Lived for less than one year in Asia (Burma, Thailand, Malaysia, India)
အာရှတိုက်၌ တစ်နှစ်ခံတစ်နှစ်အောက် နေထိုင်ခဲ့သည့် (ဗမာ၊ ထိုင်း၊ မလေးရှား၊ အိန္ဒိယ)
- 3. Occasional visits to Asia (Burma, Thailand, Malaysia, India, etc.)
အာရှတိုက်ရှိ ရံဖန်ရံခါ သြားရောက်လေ့ရှိသည့် (ဗမာ၊ ထိုင်း၊ မလေးရှား၊ အိန္ဒိယ)
- 4. Occasional communications (letters, phone calls, Line, Facebook, etc.) with people in Asia (Burma, Thailand, Malaysia, India, etc.)
အာရှတိုက် (ဗမာ၊ ထိုင်း၊ မလေးရှား၊ အိန္ဒိယ စသည့်) ရှိ လူများနှင့် ရံဖန်ရံခါ ဆက်သွယ်သော (စာ၊ တယ်လီဖုန်း၊ ဝေဒနာစသော LINE, Facebook စသည့်)
- 5. No communications with people in Asia
အာရှတိုက်ရှိ လူများနှင့် အဆန္ဒကြွယ်၍ မရှိပါ

15. What is your food preference at home?
အိမ်တွင် သင့် နှစ်နှစ်ကိုးစွာကဲ့သို့ အစားအစာမှာ ဘာလဲ?

- 1. Exclusively Asian food
အထူးသဘောနှင့် အာရှအစားအစာသာ
- 2. Mostly Asian food, some American
အများအားဖြင့် အာရှအစားအစာနှင့် အချို့သော အမေရိကန်အစားအစာ
- 3. About equally Asian and American
အာရှနှင့် အမေရိကန်အစားအစာ ညီတူမျှတူ
- 4. Mostly American food
အများအားဖြင့် အမေရိကန်အစားအစာ
- 5. Exclusively American food
အထူးသဘောနှင့် အာရှအစားအစာသာ

16. What is your food preference in restaurants?
စားသောက်ကြိုငြိမ်း သင့် နှစ်နှစ်ကိုးစွာကဲ့သို့ အစားအစာမှာ ဘာလဲ?

- 1. Exclusively Asian food
အထူးသဘောနှင့် အာရှအစားအစာသာ
- 2. Mostly Asian food, some American
အများအားဖြင့် အာရှအစားအစာနှင့် အချို့သော အမေရိကန်အစားအစာ
- 3. About equally Asian and American

အာရှဒွေဒု အေမရိကန္တစားအစာ ညီတူမ့်တူ

- 4. Mostly American food
အမ်းအားဖဒု အေမရိကန္တစားအစာ
- 5. Exclusively American food
အထူးသဖလဒု အာရှအစားအစာသာ

17. Do you
သင

- 1. read only an Asian language?
အာရှဘာသာစကားတစုသာ ဖတုဒုဒုငါသလား?
- 2. read an Asian language better than English?
အဂလိဟထက အာရှဘာသာစကား ပိဖတုဒုဒုငါသလား?
- 3. read both Asian language and English equally well?
အာရှဘာသာစကားဒုဒု အဂလိဟကို ညီတူမ့်တူ ဝေကာဒုဒုဒု ဖတုဒုဒုငါသလား?
- 4. read English better than an Asian language?
အာရှဘာသာစကားထက အဂလိဟကို ပိဖတုဒုဒုငါသလား?
- 5. read only English?
အဂလိဟသာ ဖတုဒုဒုငါသလား?

18. Do you
သင

- 1. write only an Asian language?
အာရှဘာသာစကားတစုသာ ဝေရးဒုဒုငါသလား?
- 2. write an Asian language better than English?
အဂလိဟထက အာရှဘာသာစကား ပိဝေရးဒုဒုငါသလား?
- 3. write both Asian language and English equally well?
အာရှဘာသာစကားဒုဒု အဂလိဟကို ညီတူမ့်တူ ဝေကာဒုဒုဒု ဝေရးဒုဒုငါသလား?
- 4. write English better than an Asian language?
အာရှဘာသာစကားထက အဂလိဟကို ပိဖတုဒုဒုငါသလား?
- 5. write only English?
အဂလိဟသာ ဖတုဒုဒုငါသလား?

19. If you consider yourself a member of the Asian group (Burmese, Karen, Kachin, Shan, Mon, Rakhine), how much pride do you have in this group?

သဒုဒုယုဒု အာရှတိုက္ကားအုပု (ဖမန္ဒ၊ ကရု၊ ကဒ်၊ ရှုမုး၊ မြနု၊ ရခိုငု) အသဒုဒုသားအဖဖု စဉုးစားပါက ဤအုပုတြုဒု ရှိရမဒုဒုအတြကု သင ဘယုဝေလာကု ဂုတ္တုပါသလဲ?

- 1. Extremely proud
အတြန္တမဒုဒု ဂုတ္တုမိသည

- 2. Moderately proud
အသင့်အတင့် ဂုဏ်ရှိမိသည့်
- 3. Little pride
အနည်းငယ် ဂုဏ်ရှိမိသည့်
- 4. No pride but do not feel negative toward group
ဂုဏ်ယူပါ သို့မဟုတ်လည်း အနုတ္တကရှုထောင့်အပေး မခံစားမိပါ။
- 5. No pride but do feel negative toward group
ဂုဏ်ယူပါ သို့မဟုတ်လည်း အနုတ္တကရှုထောင့်အပေး ခံစားမိပါ။

20. How would you rate yourself?
သင့်ကိုယ်ကို မည်သို့ သတ်မှတ်ပါသလဲ?

- 1. Very Asian
အာရှတိုင်းသားအဖြစ်
- 2. Mostly Asian
အများစုအာရှတိုင်းသား
- 3. Bicultural
ယဉ်ကျေးမှုနှစ်မျိုးလုံးပါရှိသူ
- 4. Mostly Westernized
အများစုအနောက်တိုင်းသား
- 5. Very Westernized
အနောက်တိုင်းသားအဖြစ်

21. Do you participate in Asian occasions, holidays, traditions, etc.?
အာရှတိုင်းထိမ်းမြားရေးပွဲများ၊ အနားရက်များ၊ ယဉ်ကျေးမှုထုံးတမ်းစဉ်ဆက်များ ပါဝင်ပါသလား?

- 1. Nearly all of them
၎င်းတို့အားလုံးနီးပါး
- 2. Most of them
၎င်းတို့အများစု
- 3. Some of them
၎င်းတို့အချို့
- 4. A few of them
၎င်းတို့အနည်းငယ်
- 5. None at all
လုံးဝ မပါဝင်ပါ

22. Rate yourself on how much you believe in Asian values (e.g., about marriage, families, education, work):

Appendix C: Riverside Acculturation Stress Inventory

1. Because of my Asian background, I have to work harder than most Americans.
 ကြေးဝူပု၏အရွှ်တိုင်းသားနောကွံ့ပေဟကော့ ကြေးဝူပု အစားအေမရိကန္တမ်းစုထက ပိုခဲကွဲတြာ
 လူပိုငုမည။ 1 (Not at all) 2. 3. 4. 5. (Very
 much)
 (လံုးဝမဟုတု) (အလြန္တမ်းစဟး)

2. I feel the pressure that what “I” do will be seen as a representative of Asian people’s abilities.
 “ကြေးဝူပု” လူပိုငုမည့်မုန့်မုကို အရွှ်တိုင်းသားမ်း၏တြမုးေဆာင်းိုငုးအစဖု
 ကိုယွားစပီစမင်းယာင်းဟကော့င်း ဖိအားပေးမုကို ကြေးဝူပုစားရသည။
 1 (Not at all) 2. 3. 4. 5. (Very much)
 (လံုးဝမဟုတု) (အလြန္တမ်းစဟး)

3. In looking for a job, I sometimes feel that my Asian background is a limitation.
 အလုဟေတြာတြာ ကြေးဝူပု၏အရွှ်တိုင်းသားဖစွးသည အားနည်းခဲက္ကစွဟု တခါတရံ ကြေးဝူပု
 ခံစားရသည။
 1 (Not at all) 2. 3. 4. 5. (Very much)
 (လံုးဝမဟုတု) (အလြန္တမ်းစဟး)

4. It’s hard for me to perform well at work because of my English skills.
 ကြေးဝူပု၏အဂလိဟအားနည်းခဲကော့င်း အလုပုတြာ ကော့င်းတြာ အလုပုပုးိုငုန
 ကြေးဝူပုတြက ခဲကွဲသည။
 1 (Not at all) 2. 3. 4. 5. (Very much)
 (လံုးဝမဟုတု) (အလြန္တမ်းစဟး)

5. I often feel misunderstood or limited in daily situation because of my English skills.
 ကြေးဝူပု၏အဂလိဟအားနည်းခဲကော့င်း ဝေဟစညပုနးေဆာတြမ်းတြာ နားလညးတြ
 သိုမဟုတု အကနုအသတို့သည ကြေးဝူပု မဟကော့ခဏ ခံစားရသည။
 1 (Not at all) 2. 3. 4. 5. (Very much)
 (လံုးဝမဟုတု) (အလြန္တမ်းစဟး)

6. It bothers me that I have an accent.
 ကြေးဝူပု စကားဝဲသညို ကြေးဝူပုတြက အေ့တင်းအယွကွဖစုသည။
 1 (Not at all) 2. 3. 4. 5. (Very much)
 (လံုးဝမဟုတု) (အလြန္တမ်းစဟး)

7. I have had disagreements with other Asians (e.g. friends or family) for liking American customs or ways of doing things.

အေမရိကန်နည်းစနစ်များကို သိပ်မတူဘဲ အေမရိကန်နည်းစနစ်များကို ဖက်ကီကီနဲ့ ကွဲပြားအကြံပြု ကြားနားမှုများ အစား အရှုတိုင်းသား (ဥပမာ သူငယ်ချင်း သို့မဟုတ် မိသားစု) နှင့် သဘောထားကြွေးမြေး ရှိသည်။

1 (Not at all) 2. 3. 4. 5. (Very much)
(လုံးဝမဟုတ်) (အလွန်စွာ)

8. I have had disagreements with Americans for liking Asian customs or ways of doing things.

အရှုတိုင်းသားများ သို့မဟုတ် အရှုလူမျိုးစဉ်း ဖက်ကီကီနဲ့ ကွဲပြားအကြံပြု ကြားနားမှုများ အစား အေမရိကန်နည်းစနစ်များကို သဘောထားကြွေးမြေး ရှိသည်။

1 (Not at all) 2. 3. 4. 5. (Very much)
(လုံးဝမဟုတ်) (အလွန်စွာ)

9. I feel my particular practices (Asian or American) have caused conflict in my relationships.

ကျွန်းုပ်ပုံ၏ ဖိစီးမှုပေးဆောင်ခြင်း (အရှုတိုင်းသား သို့မဟုတ် အေမရိကန်) ဝေဖန်မှုနှင့် ဆက်ဆံရေးဖြင့် ပဋိပက္ခပေါ်ပေါက်လာမှု ကြားနားမှုများ ရှိသည်။

1 (Not at all) 2. 3. 4. 5. (Very much)
(လုံးဝမဟုတ်) (အလွန်စွာ)

10. I have been treated rudely or unfairly because of my Asian background.

ကျွန်းုပ်ပုံ၏အရှုတိုင်းသားနောက်ခံဝေဖန်မှု ကြားနားမှုများ ရှိခြင်းကြောင့် သိပ်မတူဘဲ မတရားစွာ ဖိစီးခံရသည်။

1 (Not at all) 2. 3. 4. 5. (Very much)
(လုံးဝမဟုတ်) (အလွန်စွာ)

11. I have felt discriminated against by Americans because of my Asian background.

ကျွန်းုပ်ပုံ၏အရှုတိုင်းသားနောက်ခံ အေမရိကန်များမှ ခြိမ်းခြောက်မှုခံရမှု ကြားနားမှု ခံစားရသည်။

1 (Not at all) 2. 3. 4. 5. (Very much)
(လုံးဝမဟုတ်) (အလွန်စွာ)

12. I feel that people often interpret my behavior based on their stereotypes of what Asians are like.

အရှုတိုင်းသားများ မညီညွတ်စွာ ပုံသေကားခံယူမှုများ လူများသည် ကျွန်းုပ်ပုံ၏ အဖီအမူကို အဓိပတိယုဝေကောက်မှု ကြားနားမှု ခံစားရသည်။

1 (Not at all) 2. 3. 4. 5. (Very much)
(လုံးဝမဟုတ်) (အလွန်စွဲစွဲ)

13. I feel there are not enough Asian people in my living environment.
ကဗြေးဒုတိယတန်းတန်းကဏ္ဍ အာရှတိုင်းသားများ နည်းသည့် ကဗြေးဒုတိယ ခံစားရသည်။

1 (Not at all) 2. 3. 4. 5. (Very much)
(လုံးဝမဟုတ်) (အလွန်စွဲစွဲ)

14. When I am in a place or room where I am the only Asian person, I often feel different or isolated.

နေရာတစ်ခု သို့မဟုတ် အခန်းတစ်ခုတွင် ကဗြေးဒုတိယ တစ်ဦးတည်းသော အာရှတိုင်းသားအဖစု ရှိပါက ကြွေးမစားနားသည် သို့မဟုတ် အထီးကျန်သည့် ကဗြေးဒုတိယ ခံစားရသည်။

1 (Not at all) 2. 3. 4. 5. (Very much)
(လုံးဝမဟုတ်) (အလွန်စွဲစွဲ)

15. I feel that the environment where I live is not multicultural enough. It does not have enough cultural richness.

ကဗြေးဒုတိယတန်းတန်းကဏ္ဍ ယဇ္ဇကောင်းမပေါင်းစုံ လုံလောက်ကြွေးမရှိဟု ကဗြေးဒုတိယ ခံစားရသည်။ ယဇ္ဇကောင်းမပေါင်းစုံကြွေးမလုံလောက်ကြွေး မရှိပါ။

1 (Not at all) 2. 3. 4. 5. (Very much)
(လုံးဝမဟုတ်) (အလွန်စွဲစွဲ)

Appendix D: Beck Depression Inventory

Withheld due to copyright restrictions.

Appendix E: Permission to Use the Suinn-Lew Asian Self Identity Scale

Dr. Richard M. Suinn, Ph.D., ABPP, has given blanket permission to use the SL-ASIA (Suinn-Lew Asian Acculturation Scale (See http://www.columbia.edu/cu/ssw/projects/pmap/docs/suinn_slasia.pdf).

Appendix F: Permission to Use the Riverside Acculturation Stress Scale

Source Used:

The majority of metadata for this record was created from PsycINFO Record: 2005-06584-008

Purpose:

The purpose of the Riverside Acculturation Stress Inventory is to assess stress associated with the acculturation process, a multifaceted experience related to interpersonal, intellectual/professional, and structural pressures.

Permissions:

May use for Research/Teaching

Fee:

No


Appendix G: Permission to Use the Beck Depression Inventory II

Mail - Gunnar Newman - Outlook - Microsoft Edge

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