

2014

# Immigration and depression : an exploration of risks and protective factors

Lenissa Vilhena Barbosa

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## ABSTRACT

The goal of this study was to explore whether immigration was a risk factor for the development of depression and which were the triggers and protective factors that contribute to the development of depression among a specific population (N = 51) of highly educated legal immigrants during their first years living in the US. Additionally, it sought to determine if the “immigration paradox” (Franzini, Ribble, & Keddie, 2001) could be found in this specific population as well. A quantitative exploratory method design was used, and participants were recruited using the snowball sampling technique, and participated in this research through an anonymous web-survey. No theoretical or epistemological consensus was found among the existent literature about if immigration is or not a risk or a protective factor for development of depression, and no data were available on this population’s immigration process until this present study. The results of this study showed that of participants (74.51%) reported feeling emotionally different during the first year after they had immigrated, with the presence of sadness, anxiety, low self-esteem, reduced energy or fatigue, depressive mood, and difficulties to sleep as the most frequent complains; those symptoms were severe enough to impair their lives in 23.53% of the cases. The conclusion of these current study findings suggests a higher correlation between immigration and onset of depression. However, the immigration paradox could not be completely rejected in this sample because although a higher correlation between immigration and depression was found, the majority of the sample also reported excellent (37.25%) to very good (52.94%) current emotional health, which indicates that even though they had experienced

depression during the first year after immigration this mental illness is not present anymore.  
Further studies are necessary to confirm the initial hypothesis of this study, in this specific  
population of immigrants.

**IMMIGRATION AND DEPRESSION: AN EXPLORATION OF RISKS AND  
PROTECTIVE FACTORS**

A project based upon an independent investigation,  
submitted in partial fulfillment of the requirements  
for the degree of Master of Social Work.

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2014

## **ACKNOWLEDGEMENTS**

Dedico mais esse trabalho e conquista as pessoas mais importantes em minha vida, as pessoas que sem elas, minha vida nao teria sentido: a minha familia. Dedico aos meus irmaos, Fabricia e Rafael, pelo bom humor e apoio; ao meu filho amado, Ian Vilhena, por ser quem voce e, o melhor filho que eu poderia ter; ao meu marido, Rodrigo, por ter estado ao meu lado durante todo esse processo com muito amor, carinho, cuidado e paciencia; e primeiramente dedico esse trabalho aos meus pais, Waldir e Vera, por toda uma vida de dedicacao, cuidado, educacao, amor, e apoio,. Nao posso deixar de mencionar e agradecer ao meu cachorrinho, Brutus e a todas as suas lambidinhas e ocitocina produzida. Muito obrigada!

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## **CHAPTER I**

### **Introduction**

The purpose of this study is to determine whether immigration is a risk factor for the development of depression and identify the triggers and protective factors that will or will not contribute to the development of depression among highly educated legal immigrants during their first year living in the US. Additionally, this study seeks to determine if the immigration paradox could be found in this specific population as well. The population evaluated in this study is comprised of immigrants who have completed college or other education beyond high school; who were older than 21 years old; who came to live in the US to work, to study, or follow their spouses. They must also have legal visa status, proficiency in English, and been living in the US for at least one year. This particular population and criteria were chosen based on the fact that no data is available on this population's immigration process.

The majority of empirical studies about immigration and depression use Latino people living in the US as their population, and there is not a consensus about whether immigration is a risk factor for the development of depressive symptoms. Some studies find a higher correlation between the first years of immigration and development of psychiatric disorders, (Vega, Warheit, & Palacio, 1985; Vega, Kolody, Valle, & Hough, 1986; Hovey, 2000; Breslau, et al., 2007; Breslau, Borges, Tancredi, Saito, Kravitz, Hilton, et. al., 2011) while others find the opposite, and view immigration as a protective factor for development of psychiatric and medical disorders (Alegria, Shrout, Woo, Guarnacci, Sribney, Vila, et al., 2007; Alegria, et al., 2008;

Burnam, Hough, Karno, Escobar & Telles, 1987; Golding & Burnam, 1990a; Golding & Burnam, 1990b; Moscicki, Locke, Rae, & Boyd, 1989; Ortega, 2004). These findings are consistent with the extended literature that supports the “immigration paradox” which states that immigrants, despite possible traumatic events, stress, and poverty, present a lower risk for development of depressive symptoms, suicide, and other mental health diseases when compared with the US-born Latino population or even White Americans. (Franzini, Ribble, & Keddie, 2011; Kyriakos & Coreil, 1986).

These research results are important because, according to the United States 2010 Census, the immigrant population today in the United State represents 1 in 8 US residents or 40.0 million people, and the census projections indicate that by 2050, the number of Latinos living in the US will rise to nearly 97 million, fully a quarter of the US population (US Census Bureau, 2010). Additionally, the World Health Organization (2013) estimates that today, depression affects 350 million people worldwide and predict that by 2030 depression will be the leading cause of disability.

Therefore, studies about how immigration impacts immigrants’ mental health, and if immigration is a risk factor for depression, are important and necessary for the social work and health fields because they will increase health providers’ awareness and knowledge, thus improving the chances for early and more precise diagnoses, treatment plans, interventions, and positive outcomes.

This qualitative study will examine the emotional experiences of immigrants in their first year living in the USA with the aim of identifying if immigration leads to depression. It will use an anonymous web-survey as its instrument, with a nonprobability convenience method of sampling; participants would be recruited using the snowball sampling technique. The



convenience sample of immigrants will be primarily recruited by e-mails based on this researcher's previous acquaintance. Moreover, recruitment flyers will be posted at a local university (UMass). Both e-mails and flyers will contain information about this study, including its propose, its methodology, its inclusion criteria, and the web SurveyMonkey link. The Informed Consent was included in the web SurveyMonkey; by pressing "Done," participants indicated that they read and understood the Informed Consent.

The Human Subject Review Board (HSRB) at Smith College, Northampton, MA, approved this research after being assured that all materials met Federal and institutional standards for protection of human subjects.

The second chapter of this study discusses important theories about immigration and introduces this interesting contradictory topic. Different points of view were assessed and explored, demonstrating how immigration, for some researchers, is a risk factor for development of psychiatric disorders while others consider it a protective factor. No consensus about this topic was found, suggesting the necessity for more empirical research.

## **CHAPTER II**

### **Literature Review**

The purpose of this study is to determine whether immigration is a risk factor for development of depression and to identify the triggers and protective factors that will or will not contribute to the development of depression among highly educated legal immigrants during their first years living in the US. Once those risks and protective factors are identified, this study will contribute data that could help mental health professionals' treatment approaches.

Additionally, this study seeks to determine if the immigration paradox could be found in this specific population as well. Therefore, this study aims also contribute to an understanding of the immigration process so that clinicians might assist immigrants to understand their state of mind and feelings so that they can help themselves through the immigration process.

The United States 2010 Census identified the main differences among immigrants in the last 50 years. In 1960, the foreign-born population represented 1 in 20 residents or 9.7 million people, and the majority of them had migrated from European countries. Today, this population represents 1 in 8 US residents or 40 million people, most of whom are from Latin America and Asia (US Census Bureau, 2010). Moreover, the census projections indicated that by 2050, the number of Latinos living in the US would rise to nearly 97 million, which will comprise a quarter of the US population (US Census Bureau, 2010).

Additionally, the World Health Organization (2012) estimates that today, depression affects 350 million people worldwide and predicts that by 2030 depression will be the leading

cause of disability; this will increase the use of outpatient medical services and inpatient hospitals, especially as the incidence of suicidal ideation and attempts rises. Therefore, studies about how the immigration process could impact immigrants' mental health and whether migration is a risk factor for depression are necessary to inform mental health providers about risk and protection factors; these results could increase their awareness and might in turn improve the chances for early diagnoses, leading to more effective mental health treatments that provide a better quality of life for this growing population.

This chapter will review the literature about immigration and its incidence as a risk factor for depression using empirical and theoretical studies that could locate risk and protective factors for development of depression among immigrants. For the purpose of this study, the DSM-V definition of depression will be used; moreover, the difference between depression, melancholia, and mourning will be assessed in order to establish a better understanding about the immigration processes. Therefore, depressive disorders and major depressive disorder are defined by the DSM-V as:

Depressive disorders include mood dysregulation disorder, major depressive disorder (including major depressive episode), persistent depressive disorder (dysthymia), premenstrual dysphoric disorder, substance/medication-induced depressive disorder, and unspecified depressive disorder...the common feature of all of these disorders is the presence of sad, empty, or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual's capacity to function. What differs among them are issues of duration, timing, or presumed etiology...major depressive disorder represents the classic condition in this group of disorders. It is characterized by discrete episodes of at

least 2 weeks' duration (although most episodes last considerably longer) involving clear-cut changes in affect, cognition, and neurovegetative functions and inter-episode remissions...Careful consideration is given to the delineation of normal sadness and grief from a major depressive episode. Bereavement may induce great suffering, but it does not typically induce an episode of major depressive disorder. When they do occur together, the depressive symptoms and functional impairment tend to be more severe and prognosis is worse compared with bereavement that is not accompanied by major depressive disorders (2013, p.155).

For purposes of diagnosis, this study will make use of the DSM-V diagnostic criteria for major depressive disorder:

A. Five (or more) of the following symptoms have been present during the 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressive mood or (2) loss of interest or pleasure. 1) Depressive mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, hopeless) or observation made by others (e.g., appears tearful). 2) Markedly diminished interest or pleasure in all, or all most all, activities most of the day, nearly every day (as indicated either by subjective account or observation). 3) Significant weight loss when not dieting or weight gain (e.g., change of more than 5% of body weight in a month) or decrease or increase in appetite nearly every day. 4) Insomnia or hypersomnia nearly every day. 5) Psychomotor agitation or retardation nearly every day (observed by others, not merely subjective feelings of restlessness or being slowed down). 6)

Fatigue or loss of energy nearly every day. 7) Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick). 8) Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others). 9) Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide. B. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. C. The episode is not attributable to the physiological effects of substance or to another medical condition. D. The occurrence of the major depressive episode is not better explained by schizoaffective disorder, schizophrenia, schizophreniform disorder, delusional disorder, or other specific and unspecific schizophrenia spectrum and other psychotic disorders. E. There has never been a manic episode or a hypomanic episode (2013, pp. 160-161).

Immigration is defined in this study as a “geographical mobility of persons who move, either individually, in small groups, or in large masses, and remain for sufficiently long time to imply the need to carry out the activities of daily living” (Grinberg & Grinberg, 1984, p. 3). However, this study will focus only on voluntary migration and immigrants who can return to their own country; it underscores the different psychological impacts that voluntary versus involuntary immigration, including refugees, deportees, exiles or those who could not return to their country of origin, could cause.

Moreover, this study will also make use of Freud’s (1917) and other authors’ discussion about melancholia, mourning, and loss in order to understand immigration as a loss, or as Eng

and Han (2000) stated, “The experience of immigration itself is based on a structure of mourning” (p.9). Therefore, the immigrant must work through his/her losses that include one’s family, homeland, identity, language, and status in community.

Freud (1917) wrote that mourning is an habitual reaction to loss, which could be a loved person or the loss of some “abstraction” (p.243) which could be one’s country, ideal, liberty, among others; however, in some people the same influences would produce melancholia instead of mourning. Freud (1917) described the mental features of melancholia as a “profoundly painful dejection, cessation of interest in the outside world, loss of the capacity to love, inhibition of all activity, and a lowering of self-regarding feelings to a degree that finds utterance in self-reproaches and self-revilings, and culminates in a delusional expectation of punishment” (p.244).

Furthermore, Freud (1917) stated that in profound mourning we could find in one’s mind responses to the “same painful frame of mind, the same loss of interest in the outside world ...the same loss of capacity to adopt any new object of love (which would replace him) and the same turning away from any activity that is not connected with thoughts of him” (p.244) but the disturbance of self-regard is absent. Therefore, he stated that the major differentiation between mourning and melancholia is that “in mourning it is the world which has become poor and empty; in melancholia it is the ego itself” (Freud, 1917, p.246).

Immigration processes are complex because they involve many psychological functions and could cause psychological distress, such as mourning and melancholia/depression. Lijmaer (2001) emphasized that migration is a psychological process that involves profound losses; the primary one is the “mother country” (p.427), and it will evoke times of inadequacy, self-identity and self-esteem problems, disappointment, sorrow, nostalgia, and splitting processes. Moreover, she stated that successful adjustment after immigration implicates the mourning of the old

country, where “this psychological process entails the internalization and integration of the good and bad of the new country” (2001, p.435) and includes the strength of one’s ego as well as the capacity to bear ambiguities. However, as Freud (1917) pointed out, this psychological process could be difficult because working through the mourning process represents one’s possibility to detach from the lost object and invest his/her libido into new objects; the work of mourning could be considered concluded when one’s ego becomes free and uninhibited again (p.245). Though, the difficulty in investing in new objects is one of the mental features of mourning, which make it psychological process more difficult.

The majority of empirical studies about immigration and depression used Latino people living in the US as their population, and there is not a consensus about whether immigration is a risk factor for the development of depressive symptoms. Some studies found that a high number of Latino immigrants develop depression while others did not. These latter research findings were consistent with the extended literature that supports the “immigration paradox,” which states that immigrants, despite possible traumatic events, stress, and poverty, presented lower risks for the development of depressive symptoms, suicide, and other mental health diseases if compared with the US-born Latino population or even White Americans.

### **Immigration Paradox**

Markides and Coreil (1986) coined the phrase, Hispanic Epidemiological Paradox, known today as the Immigration paradox or Hispanic paradox. This “paradox” refers to epidemiological findings that Latino immigrants in the US, despite their general low socioeconomic status, low education, and language barrier, tend to have better general physical and mental health as well as mortality outcomes than US-born Latinos or even US White

citizens; however, this health occurrence is only present among first immigration generations (Franzini, Ribble, & Keddie, 2001).

Some older studies found that Hispanic immigrants present a lower risk of depression when compared with US citizens or US-born Mexican Americans (Burnam, 1987; Golding & Burnam, 1990a; Golding & Burnam, 1990b; Moscicki et al., 1989). More recent research shows the same results, which is consistent with the existing literature, indicating lower rates of depressive symptoms and other mental health diseases among first generation of Latinos immigrants (Alegria, et al., 2007; Alegria, et al., 2008; Grant et al., 2004; Ortega, Rosenheck, Alegria, & Desai, 2000).

Moreover, Grant et al. (2004) found that not only foreign-born Mexican Americans are at lower risk for development for mental illness but also foreign-born non-Hispanic Whites were as well. Both populations in this study were compared with their US-born counterparts.

Additionally, other studies found lower rates of suicidal ideation and suicidal attempts among Latinos than among White Americans (Smith, Mercy & Warren, 1985; Sorenson & Golding, 1988a; Sorenson & Golding, 1988b).

### **Different Findings**

Chen and Vargas-Bustamante (2011) questioned if the disparities in mental health utilization between immigrants and US-born citizens were related to a lack of mental illness or to a lack of healthcare access and health insurance coverage. They found that improving both of these for immigrants could potentially decrease by 20-30% the disparities between immigrants and US-born citizens' utilization of mental health services (p 678); therefore, mental health professionals and policy makers should pay attention to this and try to decrease immigrants' barriers, such as lack of information, language barriers, and accessibility to mental health care.



Vega, Warheit, and Palacio (1985) undertook the first epidemiological study that found a higher risk for psychological distress among Mexican American farmworkers. Moreover, the studies described above never compared Latino immigrants living in the US with non-immigrants still living in their country of origin. One pilot study conducted by Breslau et al. (2007) was the first study that directly found immigrants were at a higher risk for the development of mood and anxiety disorders after migrating to the US, but its generalizability was very small due to its sample of only 75 immigrants. Therefore, Breslau et al. (2011) conducted a larger study using a sample of 554 Mexican-born immigrants in the US and 2519 non-migrants living in Mexico who had a migrant in their immediate family. This was the first study that compared this population to estimate the effect of immigration and its possible risk for first episode of psychiatric disorders; it found that immigrants were at higher risk for development of first episodes of depression disorders (11.0% vs. 8.2%), including dysthymia and major depression, and for anxiety disorders (10.1% vs. 6.2%), including social phobia and Generalized Anxiety Disorder (GAD), than their counterparts who stayed in Mexico. However, there was a big disparity between the number of the population accessed in the US and the number of the population accessed in Mexico, which may have interfere into this study findings.

Additionally, another study examined the impact of pre-migration stressors on depressive symptoms among Latino immigrants in the US. It found that immigrants who had experienced major life events and lived in poverty before immigration were associated with increased depressive symptoms. (Ornelas & Perreira, 2011). However, this study did access the mental health state of this study sample prior to their migration to the US, which could have shaped participants experiences and bias this study.

Hovey (2000) also found that immigration may put individuals at risk for depression and suicidal ideation and could be related to acculturative stress, family dysfunction, lack of social support, and lack of future expectation; his findings are congruent with de Snyder (1987) and Vega, Kolody, Valle, and Hough (1986). Vega et al. (1986) found significant association between depressive symptoms and low-income families' reduced health status, recent migration in the past five years, disrupted marital status, lack of support, and low educational achievement. Moreover, this study sample, which was composed of Mexican women, found a higher prevalence of depressive symptoms in this population. One of this study's hypotheses is that women are more likely to report depression than men because it is more socially or culturally more acceptable for them. De Snyder (1987) found that acculturative stress, lack of control over the decision to migrate, lack of marital support, and lack of English proficiency are more highly associated with depression symptoms; however, both studies only assessed Mexican women immigrants, and some risk factors could be related to a high risk for depression without necessarily being caused by migration.

Additionally, other significant studies found that older Mexican immigrants, aged 60 and over, in the US scored higher for depressive symptomology than the similarly aged US-born general population and were more likely to report high depressive symptoms than older US-born Mexican Americans, non-Hispanic Caucasians, and African Americans (Black, Markides, & Miller, 1998; Gerst, Al-Ghatrif, Beard, Sampler-Ternent & Markides, 2010; Gonzalez, Haan, & Hinton, 2001).

Therefore, it is still inconclusive if migration is a risk factor for the onset of depression and other mental health disorders during the first years of living abroad or even after many years

of migration. However, some risk and protective factors were established by the existing literature and will be addressed by this study.

### **Risk Factors for the Onset of Mental Diseases Among Immigrants Living in The US**

**Years of immigration.** Vega et al. (1986) found a higher association between depressive symptoms and the first five years following immigration. Gerst, Al-Ghatrif, Beard, Sampler-Ternent, and Markides (2010) found that many older Mexican immigrants had life-long labor disadvantages, accompanied by physically demanding work, low pay, and long work hours; these factors, combined with social stress, financial insecurity, and lack of health care access, could explain the higher risk of depressive symptoms among older immigrants.

**Pre-Migration and migration experiences.** Ornelas and Perreira (2011) found that immigrants who had lived under high poverty and/or experienced traumatic events before or during migration were more likely to develop depressive symptoms or mood disorders. However, it is not clear if migrants, due to the immigration process, are more likely to develop clinical depression than other people who had lived under the same conditions.

**Becoming a racial or ethnic minority and discrimination.** Upon arriving in the US, immigrants would experience themselves as different from the majority, and their different culture, language, and skin color could represent a higher risk factor for experiencing racism or discrimination, which could increase the risk for mental health issues (Cook, Alegría, Lin, & Guo, 2009; Finch, Kolody, & Vega, 2000; Gee, Ryan, Laflamme, & Holt, 2006; Ornelas & Perreira, 2011).

**Acculturation.** This study understands acculturation as the psychological and social changes that will or will not occur for an individual who immigrates from his/her culture to live in a difference place with different cultural values (Burnam et al., 1987). Low acculturation is a

controversial risk factor for development of mental illness. Vega et al. (1984) found that lower levels of acculturation lead to higher levels of psychological distress. Moreover, Black et al. (1998), Fabrega (1969), Hovey and King (1996), Hovey (2000), and Vega, Warheit, and Meinhardt (as cited in Burnam et al., 1987) claimed that lack of acculturation is a font of stress and consequently a risk factor for development of mental illness. However, others argued that less-acculturated immigrants are less susceptible to the development of mental illness due to higher family orientation and social values present in Latino culture. Therefore, being less-acculturated into Anglo culture is considered as a protective factor because it will prevent alienation and isolation from the Latino community and family (Burnam et al., 1987; Kaplan and Marks, 1990; Moscicki et al., 1989; Ortega et al., 2000; Vega and Sribney, 2011).

**Language barrier.** This is another aspect of acculturation. The literature is contradictory about whether it is a risk (Hovey, 2000; Vega et al. as cited in Burnam et al., 1987) or a protective factor linked to the development of psychiatric disorders (Ortega et al., 2000).

**Family dysfunction.** This is discussed throughout the literature as a risk factor for the development of psychiatric disorders, such as depression and anxiety disorders, especially among Latinos because “family” is considered the core of Latin culture (Alegria et al., 2007; Grand et al., 2004; Hovey, 2000).

**Low levels of social support.** This is considered a predictive factor for depression and suicidal ideation (Alegria et al., 2007; Hovey, 2000). Hovey (2000) found that lack of social support, next after acculturative stress, was the second strongest predictor for development of depression and indicated that a high quality of social support may help individuals coping with emotional distress (p.143). Alegria et al. (2007) supported Hovey’s findings and agreed that ineffective social support is a risk factor for depression among Latino populations.

Hovey (2000) found immigrants are at risk for high levels of depression and suicidal ideation because they may have experienced acculturation and feel caught between their culture, which embraces values, norms, and traditions that are different from the Anglo culture, and mainstream American society. Moreover, they also could encounter discrimination, language barriers, lack of integration, lack of social support, economic difficulties, breaking with family and friends, all of which would result in isolation, hopelessness, feelings of loss, and reduction of effective coping skills.

Using their country of origin and age of immigration, Alegria et al. (2007) compared eight subgroups of Latinos and compared US-born Latinos and Latinos who had arrived in the US before age of six (IUSC) with Latinos who had arrived in the US after age of six (LAI). They identified several risk factors for development of mental illness among Latinos living in the US, such as exposure to discrimination, family cultural conflict and family burden, disrupted marital status, perceived low neighborhood safety, perceived low social standing, and being out of the labor force. In all groups, some level of risk factors for mental illness was found, but still Mexican immigrants who arrived in the US after age of 6 showed lower risk of depressive disorders than their IUSC counterparts. Moreover, IUSC Cubans reported significant lower prevalence of depressive disorders than IUSC Mexicans. This study concluded that the prevalence of mental illness among Latinos from different ethnicities is a result of several factors beyond nativity only and should be better explored (Alegria et al., 2007, p. 11).

### **Protective Factors Against the Development of Psychiatric Disorders Among Immigrants Living in The US**

**Social support.** This is considered a protective factor for depression (Alegria et al., 2007; Hovey, 2000). Alegria et al (2007) found that nativity per se (the Hispanic paradox) seems to be

not the only protective factor for development or not of psychiatric disorder among immigrants living in the US. They found that family harmony, marital status, social status/support, and employment as well as age of arrival in the US, more than nativity, appear to be vital to decreasing the risks for depression and anxiety among Latinos living in the US.

**Low income.** Alegria et al. (2007) found that low income could be considered a protective factor for anxiety but only if associated with a higher perceived social standing, which appears to suppress potential negative low-income effects. This finding differs from much of the literature on economic disadvantages. However, Golding and Burnam (1990), Moscicki, Locke, Rae, and Boyd (1998), and Vega et al. (1986) found significant association between low income and depressive symptoms.

**Religion.** Alegria et al. (2007) and Hovey (2000) found that those who have religious beliefs and engage in a religious social network found greater social support. Alegria et al. (2007) concluded that marital status, family harmony, integration in employment, and self-perception of high social standing seem to be relevant to decreased risk for depression and anxiety disorders among Latinos in the US (p.12).

## **Summary**

In conclusion, this researcher could not find consensus in the literature. The research involving immigration and its correlation with mental health has been marked by inconsistent and conflicted results. The different outcomes could be attributed to differences among sample size, population, unknown variables, instrumentation, model of analyses, and study designs used in each study. Therefore, currently, there is no unique or precise knowledge about how migration could or could not affect immigrants' mental health. This speaks to the necessity for more epidemiological studies that could increase generalization including different variables, such as

exploring more than one ethnic group as a sample as well as different ages and years of migration, level of education, income, mental health accessibility, mental health information, immigration status, and reasons for migration.

## **CHAPTER III**

### **Methodology**

#### **Formulation**

Do immigrants experience depression as a result of their immigration experience, and, if so, what are the risk factors and what are the factors that help them cope with their depression. The study question is, in short, does immigration lead to depression? What are the protective and risk factors that will or will not contribute to development of depression among immigrants? Is the "immigration paradox" found among this specific population? No theoretical or epistemological consensus was found among the existing literature; however, the hypothesis of the present study is that immigration is a risk factor for development of depression and/or emotional instability due to its psychological complexity.

The sample for this study consisted of immigrants who had completed college or other education beyond high school, who were older than 21 years old, and who came to live in the US to work, to study, or to follow their spouses. They must have had legal visa status, speak fluent English, and have been living in the US for at least one year. The identification of those risk and protective factors could contribute to the data that could help mental health professionals' treatment approaches with this group as well as their understanding of the immigration process and immigrants' state of mind and feelings.



## **Research Design**

This study utilized a quantitative exploratory method design with the aim of producing valuable data using an anonymous web-survey as its instrument. This web-survey (Appendix C) consisted of 23 questions; some were demographics questions, and others focused on immigration and depression as well as risk and protective factors. Therefore, this research considered the quality of the survey questions and careful measurement of possible errors that could occur. For example, the survey questions were written in a clear way, avoiding confusing phrases and vague or negative words.

Moreover, the researcher was concerned with how to ensure consistency during data gathering and accuracy during the data analysis. Therefore the author employed several procedures, such as assigning a unique number to each web survey to ensure its organization and used a pre-test to review the survey questions, to ensure the study's validity.

## **Sample**

This study used a nonprobability convenience method of sampling and primarily recruited participants using the snowball sampling technique.

## **Recruitment**

A convenience sample of immigrants was primarily recruited by e-mail (Appendix D) based on the sample's previous acquaintance with the researcher. This e-mail asked for their participation and help forwarding this e-mail to other possible eligible participants. Moreover, recruitment flyers (Appendix E) were posted at a local university (UMass). Both the e-mail and flyers contained information about the purpose of the research, its methodology, its inclusion criteria, and the web SurveyMonkey link. The Informed Consent (Appendix F) was included in

the web SurveyMonkey; by pressing “Done,” participants indicated that they read, understood, and agreed with the Informed Consent.

The web SurveyMonkey link was included in the recruitment flyer after a revision, application of it change (Appendix G) and approval by HSR (Appendix B) It was changed in order to increase participants’ anonymity and comfort when answering or recusing themselves from the survey participation.

### **Informed Consent Procedures**

The Informed Consent (Appendix F) was included in the web SurveyMonkey; by pressing, “Done” participants indicated that they read and understood the Informed Consent.

### **Sample Population**

The sample for this study was 51 immigrants.

### **Inclusion Criteria**

The selection criteria for the sample in this study was as follows: (a) Immigrants, (b) who were older than 21 years old, (c) who had completed college or other education beyond high school, (d) who came to live in the US to work, to study or to follow their spouses. (e) They must also have legal visa status, (f) proficiency in English, and (g) been living in the US for at least one year prior to this research. After revision, the inclusion criteria that required people must have had depression or elevated sadness during their immigration process was excluded, for understanding that it actually undermines the whole point of the research

These criteria were chosen based on the fact that the majority of empirical studies on immigration and its correlation with psychiatric disorders used a sample of low-income, low-educated Latino/Latinas immigrants as their population. Some studies found significant associations between depressive symptoms and lack of English proficiency, low education

achievement, low family income, acculturation stress, and recent migration in the past five years. However, no data is available on educated, middle/upper class immigrants for whom English is a second language but who are proficient at speaking/writing it. Therefore, this study examined this specific population in order to identify whether immigration was a risk factor for depression among them as well. The secondary purpose of the study was to identify triggers and protective factors that would or would not contribute to the development of depression.

As a result, these criteria excluded individuals who were not immigrants or who were born in the US, who were younger than 21 years old, who had not continued their studies previously or after high school, who had migrated to the US for different reasons other than to work, study, or follow their spouses, who had no legal visa status, who were not fluent in English, and who had lived in the US for less than one year prior to this research.

### **Risk of Participation**

This study recognized the following risks of participation: 1) Participants could revive and feel past difficult moments. 2) They could realize that they were depressed or that someone that they care for could be. The researcher stated all of these risks and encouraged participants who experienced any of these conditions to stop taking the survey and to contact a professional for help. Additionally, in case any participants required support after taking the survey, she suggested that they contact a mental health agency in the greater Miami area or a hotline listed at the end of the web-survey. Also, she provided a list with USA governmental links with more information about depression.

### **Benefits of Participation**

The benefits of participation included the ability of participants to reflect on their immigration process and assess their own process. Moreover, they could become more aware of

their protective factors and engage with them if needed. Participants also could possibly identify risk factors and symptoms of depression in people who were close to them and help these people to cope.

### **Precautions Taken to Safeguard Confidentiality and Anonymity Information**

This study design used an anonymous online survey to assure anonymity. The survey link did not retain email addresses or ask for the participants' name. Although country of origin, race, and ethnicity were important information for the study, participants had the option not to disclose, according to their level of comfort. Online software collected the information, and only the researcher's advisor, the Smith College School for Social Work statistical analyst, and the researcher had access to it. Any information about the participants' identity was collected or retained. The survey was set up to eliminate participants' email and name. Anonymity was assured, as the researcher gave each of the participants a specific number. She set up SurveyMonkey by checking the box that totally swiped all connecting links between participants and researcher.

### **Human Subjects Review Board**

The Human Subject Review Board (HSRB) at Smith College, Northampton, MA, approved the study after being assured that all materials met Federal and institutional standards for the protection of human subjects. A copy of the HSRB's first approval letter is provided in Appendix A, and the HSRB second approval letter regarding the changes made to the research design is provided in Appendix B.

### **Data Analysis**

Data were collected using an on-line survey; the survey consisted of eight demographic questions: (a) age, (b) gender, (c) country of origin, which was optional, (d) ethnicity, (e) marital

status, (f) level of education, (g) profession, and (h) religion. Those questions were intended to examine the inclusion checklist and used for the stratification of the sample into groups and for comparative analysis of the results. Moreover, 22 other questions based on the DSM-V diagnostic criteria for depression were included to evaluate whether the participant had or had not developed depression after he or she had immigrated to the US as well as possible risk and protective factors for the development of depression that may have been present.

The researcher conducted data analysis with statistical consultation from her research advisor and from a faculty member at the Smith College School for Social Work. The data is not accessible to anyone not mentioned in this list, and it will be kept for three years per Federal guidelines, then destroyed unless needed for a longer period of time. In that case, it will be kept securely as described above and destroyed when no longer needed.

### **Strengths and Limitations of Study Methods**

One of the strengths of this study was the utilization of an on-line survey as an instrument to collect information. Engel and Schutt (2013) stated that web surveys have some unique advantages, such as questioners can elicit more honest responses; they are usually more easily completed since the major answers can be indicated by clicking on responses boxes; and, as the answers are recorded directly into the researcher database, the data entry errors are almost eliminated and results can be reported quickly (p.258). An on-line survey can also reach a large number of potential participants without any expenses to them, in a short period of time, and without embarrassment if they decide not to be part of this study because they could just ignore the invitation or stop answering the survey at any time. The survey was anonymous, which increases privacy, comfort, and security.

Another strength was that this study approached a population that was not used in other previous studies that assessed the impact of immigration on immigrants' mental health and specifically whether immigration lead to depression.

However, an on-line survey as an instrument is also a limitation because it could prevent a certain number of potential participants from participating, such as those without computers, computer skills, or access to the Internet. Moreover, because the study's questions were delivered and answered through an on-line survey rather than in a live interview, there was no opportunity for expression of doubts, questions, clarifications, and follow-up questions.

Moreover, because the sample size is small, it does not reflect the general population of immigrants living in the US. However, the intent of this study was not to generate generalizability or statistical significance but to generate valuable data that would help increase knowledge about whether immigration is a risk factor for depression among highly educated legal immigrants and to identify the trigger factors and protective factors that will or will not contribute to depression onset among highly educated legal immigrants during their first years living in the US. Once those risk and protective factors are identified, this study could provide information that could help mental health professionals' interventions, awareness, and potential for positive treatment outcomes.

## **CHAPTER IV**

### **Findings**

The purpose of this study is to determine whether immigration is a risk factor for the development of depression and identify the triggers and protective factors that will or will not contribute to the development of depression among highly educated legal immigrants during their first year living in the US. Additionally, this study seeks to determine if the immigration paradox could be found in this specific population as well. This was an exploratory study that used quantitative methods to produce valuable data using an anonymous web-survey as its instrument. This chapter describes the sample and summarizes the quantitative data and findings.

#### **Participants Demographics**

The sample consisted of 55 participants (n=55); however, 4 of them were either disqualified because they did not meet the inclusion criteria or because they did not finish the web-survey. Among those who completed the survey, all of them met the inclusion criteria (n=51); 64.71% (n=33) were females and 35.29% (n=18) were males. The participants' ages ranged from 23 years old to 70 years old. Country of origin was not included as mandatory inclusion criteria, and the survey did not ask the participants to disclose it. The researcher made this decision because this study used a sample of convenience in order that participants would feel more comfortable accurately answering survey and without the risk of being identified by their country of origin. However, among those who answered (n=43), the majority of the participants was from Brazil 60.47% (n=26), followed by Dominican Republic 13.95% (n = 6),

Cuba 4.65% (n=2), India 4.65% (n=2), China 4.65% (N=2), Peru 2.32% (n=1), Uganda 2.32% (n=1), Guyana 2.32% (n=1), Spain 2.32% (n=1), and Mexico 2.32% (n=1). The majority of the participants were married 80.39% (n=41), had completed graduate school 80.39% (n=41), had been living in the United States for over four years 84.31% (n=43), were fluent in English previous to immigration 68.63% (n=35), and were currently working 88.24% (n=45). Half of the sample continued to work at the same position he/she had in his/her country of origin previous to immigration, and 72.55% did not have any chronic medical condition (n=37).

### **Reasons for Immigration**

This population immigrated to the USA for three major reasons: work (56.86%, n=29), study/education (47.06%, n=24), and better quality of life (35.29%, n=18). However, when this question is separated by gender, 51.52% of the females (n=17) checked family members or partner as their first reason for immigration, followed by work (48.48%, n=16) and study (42.42%, n=14). Among male participants, 72.22% (n=13) had answered work as their first reason, followed by quality of life 61.11% (n=11) and study 55.56% (n=10).

### **English Proficiency**

The majority of the participants were already fluent in English 68.63% (n=35) at the time of their arrival in the USA. Among females, 60.61% of them had English proficiency at the time of their arrival, and of those who were not fluent yet, or 39.39% of the female participants (n=13), 53.85% (n=7) of them had acquired fluency within one year after arriving. Among male participants, 83.33% (n=15) of them had English proficiency at the time of their arrival in the USA; and of those who were not fluent yet, or 16.67% of the male participants (n=3), 66.67% (n=2) had acquired English proficiency within one year after arrival. A t-test was run to



determine if there was a difference in the mean number of symptoms checked by whether they were fluent in English when arrived. No significant difference was found.

### **Current Emotional Health**

Of the participants, 37.25% (n=19) reported that their current emotional health was excellent on a 1-7 point scale where 1 represented very poor condition and 7 excellent health; no one had reported his/her current emotional health as being poor or very poor.

### **Chronic Medical Condition**

Most individuals (72.55%, n=37) denied any chronic medical condition; among those who have a medical condition (27.45%, n=14), 78.57% of them are currently taking medications for it. Among females and males, the correlation between them is almost equal for a chronic medical condition; of the female participants, 72.73% denied any chronic medical condition, and of the male participants, 72.22% denied it as well.

### **Emotional State During the First Year Living in The USA**

Of the participants, 74.51% (n=38) reported that they felt emotionally different from the way they used to feel before immigration.

Moreover, 21.62% of them reported feeling very much different on a 1-7 point scale where 1 represented very much different and 7 not different at all.

Exploring the differences between genders, 84.85% of the female participants reported feeling emotionally different during their first year living in the US with 21.43% reporting they felt very much different; of the male participants, 55.56% reported that they felt emotionally different during their first year living in the US, with 22.22% reporting they felt very much emotionally different.

## Symptomatology

Of the all participants who reported feeling emotionally different after migration, the five most frequently checked symptoms felt at least two weeks in a row were 1- feeling sad (64.71%), followed by 2- anxiety (50.00%), 3- low self-esteem (35.29%), 4- reduced energy; feeling fatigued and always tired (32.35%); and depressed mood (32.35%), and 5-difficult to sleep or poor sleep (29.41%). None of them reported having recurrent ideas of death, suicide intentions or plans, or suicide attempts. Of the participants, 54.55% denied feeling any of those symptoms previous to immigration, and 97.14% denied ever being diagnosed with a major depressive disorder before they had immigrated. Those who reported being diagnosed with a major depressive disorder previous to immigration (2.86%) also reported (100%) that their depressive symptoms got much worse on a 1-7 point scale after immigration.

Of the female participants, the five most frequently reported symptoms were 1- feeling sad (69.23%), 2- anxiety (42.31%), 3- depressed mood; and low self-esteem (34.62%), 4- feeling empty; and difficult to sleep or poor sleep (30.77%), and 5- irritability; worthlessness; and feeling slow or restless (26.92%). Of the male participants, the five most frequently reported symptoms were anxiety (75.00%), 2- feeling sad; reduced energy; and feeling fatigued and always tired (50.00%), 3- oversleep during the day; and low self-esteem (37.50%), 4- depressed mood; and difficult to sleep or poor sleep; and feeling slow or restless (25.00%), and 5- irritability; feeling empty; feeling guilt; inability to have pleasure and enjoyment; hopelessness and helplessness; impaired concentration and indecisiveness; and increased appetite with or without weight gain (12.50%).

## **The Most Distressing Symptoms Felt During the First Year After Immigration**

The most distressing feeling reported among all participants when separated by gender was sadness. When a t-test was run to determine if there was a difference in the mean number of symptoms checked by gender, no difference in the mean numbers of symptoms checked by gender was found.

## **Significant Distress and Impairment of the Participants' Daily Activities**

Of the participants, 74.51% reported that even though they had felt emotionally different during the first year after immigration, this difference was not enough to cause significant distress in or impairment of their daily activities; however, 23.53% reported that it was severe enough to cause them significant distress in or impairment of their daily activities. Of female participants, 73.08% denied experiencing any impairment of their daily activities, and 26.92% reported that the way they felt after immigration significantly impaired their daily activities. Among male participants, 87.50% denied experiencing impairment of their daily activities, and 12.50% reported that their feelings were severe enough to cause significant distress in or impairment of their daily activities.

## **Frequent Use of Alcohol or Any Other Substance/Drugs**

Most of participants (97.14%) denied using alcohol or any other substance concomitant with their report of feeling emotional different after they immigrated.

## **Risk Factors for Developmental of Distress After Immigration**

The five most reported risk factors that may have contributed to making all the participants feel emotionally different after migration were 1- missing family members (80.00%), 2- cultural differences (65.71%), 3- missing friends (62.86%), 4- adaptation (60.00%), and 5- occupational/professional difficulties or dissatisfaction (57.14%). Of female participants,

the five most reported risk factors were: 1- missing family members (77.78%), 2- cultural differences (66.67%), 3- missing friends (62.97%), 4- occupational/professional difficulties or dissatisfaction, and 5- language barrier (48.15%). Of male participants, the five most reported risk factors were 1- missing family members (87.50%), 2- adaptation; cultural differences; and missing friends (62.50%), 3- occupational/professional difficulties or dissatisfaction; and weather intolerance (50.00%), 4- stress (37.50%), and 5- language barrier (25.00%).

### **Protective Factors for Emotional Improvement During Immigration**

Of all participants, the five most reported protective factors that may have helped them to improve their mental health were 1- increase of social web/friends and support (55.56%), 2- exercise (44.44%), 3- identification and/or adaptation to American culture (41.67%), 4- acquiring English proficiency (38.89%), and 5- professional stability (33.33%). Of female participants, the five most reported protect factors were 1- increase social web/friends and support (51.85%), 2- acquiring English proficiency (48.15%), 3- exercise (44.44%), 4- family support (40.74%), and 5- finding a similar job occupation and study (37.04%). Of male participants, the five most reported protective factors were 1- increase social web/friends and support (66.67%), 2- got married; exercise; professional satisfaction; and secure environment (44.44%), 3- financial stability; and identification and/or adaptation to American culture (33.33%), 4- entertainment and leisure opportunities (22.22%), and 5- acquiring English proficiency; finding a similar job occupation; study; reunion with family which was had left behind during immigration; meditation; psychological and/or psychiatric treatment; and receptivity from local population (11.11%).

## Summary

This study's hypothesis that immigration is a risk factor for development of depression and/or emotional instability was confirmed. The majority of participants (74.51%) reported feeling emotionally different during the first year after they had immigrated, with the presence of sadness, anxiety, low self-esteem, reduced energy or fatigue, depressive mood, and difficult to sleep or poor sleep as the most frequent complains; those symptoms were severe enough to impair their lives in 23.53% of the cases. Therefore, these current study findings suggest a higher correlation between immigration and development of depression among this population in their first year living in the US. Among those who had reported feeling emotionally different, only 13.89% (n=5) believed that psychological treatment helped them to improve their emotional state, and only 2.78% (n=1) believed that psychiatric treatment had contributed to his/her mental health improvement, which indicates that there might be other factors that may contribute to the improvement of this population's current emotional state.

The most checked risk factors that may have contributed to their emotional instability were missing family members, cultural differences, missing friends, adaptation and occupational/professional difficulties or dissatisfaction, and the most checked protective factors that may have helped them to improve their emotional state were increase of social web/friends and support, exercise, identification and/or adaptation to American culture, acquiring English proficiency, and professional stability.

Moreover, the immigration paradox could not be neither confirmed nor rejected in this sample because although (74.51%) of the participants had reported feeling emotionally different during the first year after they had immigrated, the majority of the sample also reported excellent (37.25%) to very good (52.94%) current emotional health, which indicates that even though they

had experienced symptoms of depression during the first year after immigration this mental illness was not present anymore.

## **CHAPTER V**

### **Discussion**

The purpose of this study was to determine whether immigration is a risk factor for depression and to identify the triggers and protective factors that will or will not contribute to the development of depression among highly educated legal immigrants during their first years living in the US. Additionally, this study sought to explore if the immigration paradox could also be found in this population. More data could not only help mental health professionals understand the immigration process in terms of its correlation to development of mental illness, and specifically major depressive disorders, but also increase its prevention and improve treatment approaches for this population.

This research focuses on a specific population of immigrants who completed college or other education beyond high school; who were over 21 years old; and who came to live in the US to work, to study or follow their spouses. This population also had legal visa status, had proficiency in English, and had been living in the US for at least one year. The researcher chose this particular population and criteria because no data is available to determine whether immigration is a risk factor for depression among them or if the immigrant paradox could be also identified among educated immigrants for whom English is a second language but who are proficient at speaking/writing.

There is no consensus in the current literature on whether immigration is a risk or protective factor for development of psychiatric disorders; however, the hypothesis of this study

is that immigration is a risk factor for the development of depression and emotional instability due to its psychological complexity that involves profound losses. It could also evoke feelings of inadequacy, loss of self-identity and self-esteem problems, disappointment, sorrow, nostalgia, and splitting processes (Lijmaer, 2001). The majority of empirical studies that found significant associations between immigration and depressive symptoms related higher risk for depression to some risk factors, such as lack of English proficiency, low educational achievement, low family income, acculturation stress, and recent migration in the past five years; the majority of the samples in these studies was comprised of low-income and low-educated Latino/Latinas immigrants.

Quantitative exploratory methods, an anonymous web-survey, and the snowball sampling technique were used with the objective of producing valuable data. Fifty-one participants were assessed, and some of the findings include the following: The majority of the participants were married 80.39% (n=41), had completed graduate school 80.39% (n=41), have been living in the United States for over four years 84.31% (n=43), were fluent in English previous of migration 68.63% (n=35), and were currently working 88.24% (n=45). Half of the participants continued working at the same position previous to immigration.

Of the participants, 74.51% (n=38) reported that they felt emotionally different from the way they used to feel before immigration, and 21.62% of them reported feeling very much different. Moreover, 23.53% reported that this difference was severe enough to cause significant distress in or impairment of their daily activities. Comparing differences between genders, of the female participants, 84.85% felt emotionally different during their first year living abroad with 21.43% reporting feeling very much different; of the male participants, 55.56% of them reported feeling emotionally different during their first year living abroad with 22.22% reporting that they



felt very much different. Of the female participants, 26.92% of reported that the way they felt after immigration had significantly impaired their daily activities. Among the male participants, 12.50% reported that their feelings were severe enough to cause them significant distress in or impairment of their daily activities. Most individuals (72.55%, n=37) denied any chronic medical condition, and among those who have a medical condition (27.45%), 78.57% of them are currently taking medications for their illness. Moreover, most of participants (97.14%) denied the frequent use of alcohol or any other substance concomitant with their report of changes in their feelings after they had immigrated. Those criteria described above are some of this study's tools used to diagnose whether those participants had developed a major depressive episode during their first year living abroad; this clinical assumption was made based on the DSM-V criteria for major depressive disorder

The findings from this study suggest a higher correlation between immigration and the development of a major depression disorder. It is also possible that immigration is a higher risk factor for first episode of depression. However, that data has to be further confirmed in future studies. These assumptions are based on the fact that 23.53% of 74.51% of the sample that reported a substantial alteration on their mental health status also reported impairment in their lives during their first year living abroad, and 54.55% denied having those symptoms before, or ever being diagnosed with a major depressive disorder before they had immigrated (97.14%). Those who reported being diagnosed with major depressive disorder previous to immigration (2.86%) also reported (100%) that after immigration their depressive symptoms got much worse on a 1-7 point scale. No significant difference was found in the mean number of symptoms checked by whether they were fluent in English when arrived.

The resulting findings that immigration represents a higher risk for development of depression differs from some literature that stresses that first generation Latino immigrants are at lower risk for development of depression and other mental illness (Alegria et al., 2007; Alegria et al., 2008; Burnam et al., 1987; Golding & Burnam, 1990a; Golding & Burnam, 1990b; Moscicki et al., 1989; Ortega et al., 2000). Grand et al. (2004) also extended these results to foreign-born non-Hispanic Whites.

On the other hand, the data found in this study confirmed this study's hypothesis that immigration is a risk factor for development of depression and/or emotional instability; they are also consistent and support other literature that found that immigrants are at higher risk for the development of psychological distress (Vega, Warheit, & Palacio, 1985) and onset of depressive and anxiety disorders during the first years following migration (Breslau et al., 2007; Breslau et al., 2011). Those were the first studies that found a direct correlation between immigration and a higher risk factor for the development of the first onset of psychiatric disorders, such as mood disorders, including major depressive disorder and dysthymia and anxiety disorders including social phobia and GAD. Those studies compared Mexican immigrants living in the US with their counterparts who stayed living in Mexico. Another previous study (Honey, 2000) also found that immigration might put individuals at a higher risk for the development of depression.

Moreover, the finding that women in this study felt more emotionally different than men (84.85% of female to 55.56% of male) is consistent with the literature and the hypothesis that gender is an important variable in relation to a depression diagnosis because women may report more depressive symptoms and depression than men due to a higher social and cultural acceptance (Vega et al., 1986). However, when a t-test was run to identify if there was a difference in the mean number of symptoms checked by gender, no significant difference was

found, suggesting that independent of gender, immigrants might develop the same emotional responses or symptoms when first living in the US.

Nonetheless, regarding the immigration paradox, which states that first generation of Latino immigrants in the US, tend to have better general physical, mental health and mortality outcomes than US-born Latinos or even US White citizens, (Franzini, Ribble, & Keddie, 2001) this study could not report conclusive results among this current population. Despite the higher correlation between immigration and depression, the sample assessed in this present study also currently reported higher levels of emotional health; therefore, maybe this sample's mental health improvement might be related to the immigration paradox's assumption that first generation immigrants tend to have better general physical, mental, and mortality outcomes due to their foreign nativity (Franzini, Ribble, & Keddie, 2011; Kyriakos & Coreil, 1986).

On the other hand, it was clear that the act of immigrating could cause emotional distress, and mental health professionals should take this finding into consideration because 74.51% of the participants reported feeling emotionally different after their immigration, and the most reported symptom was sadness (64.71%). Therefore, this finding is consistent with the literature discussed and could be understood as a psychological mourning process (Eng & Han, 2000) because immigrants must work on their losses in order to successfully adjust to the new country where they are currently leaving (Lijmaer, 2001).

The strongest predictor for development of depressive symptoms was missing family members (80.00%). This finding is consistent with the literature that stated that family, especially among Latinos, is considered the core of Latin culture (Alegria et al., 2007; Grand et al., 2004; Hovey, 2000). The second strongest predictor for development of depression was cultural differences (65.71%); this finding is consistent with other studies, such as Black et al.,

(1998), Fabrega (1969), Wallace (1970), Hovey and King (1996), Hovey (2000), Vega, Warheit, and Palacio (1985), and Vega, Warheit, and Meinhardt (as cited in Burnam et al., 1987) that claimed that acculturation is a font of stress and consequently a risk factor for the developmental of mental illness. Finally, the third strongest predictor was missing friends (62.86%): this risk factor should be better explored in future studies because it seems to be a huge contributor to emotional distress, and it was not specifically cited in any previous studies assessed here. Other studies cited social support in general but not specifically friendship as a risk factor.

Furthermore, the strongest protective factors reported for emotional improvement during immigration was an increase of social network/friends and support (55.56%); this finding, which is consistent with Hovey's finding (2000), is particularly important because it stresses how social supports are important for maintaining a positive mental health status during distressful times. The second most checked protective factor was exercise (44.44%). Even though there is extended literature available about the importance of exercise as a coping skill for the management and improvement of mental, physical, and emotional health (Davidson et al., 2013; Ichiro, 2014; Scheewe et al. 2013; Wipfli, Landers, Nagoshi, & Ringenbach, 2011), no previous study reported here took it into account. The third most checked protective factor was identification and/or adaptation to American culture (41.67%); this finding implies that once immigrants better understand the other country's culture and adopt those different culture values, they experience improved mental health. This data is consistent with Black et al. (1998), Fabrega (1969), Hovey and King (1996), Hovey (2000), Vega, Warheit, and Meinhard (as cited in Burnam et al., 1987), Wallace (1970), and Vega et al. (1984). However, it is inconsistent with some studies' findings that acculturation is a protective factor for the developmental of psychiatric disorders (Burman et al., 1987; Moscicki et al., 1989; Kaplan & Marks, 1990; Ortega

et al., 2000; Vega & Sribney, 2011).

### **Limitations and Strengths of the Study**

**Limitations of this study.** Some limitations in this study must be acknowledged. First, the small sample size prohibits generalization and limited statistical power. Second, no utilization of any scale to diagnose depression could generate questions about this study's instrument and the findings' validity and reliability. Third, the use of an online survey could have prevented a number of potential participants from participating. Fourth, because the study's questions were delivered and answered through an online survey rather than in a personal direct interview, there was no opportunity for expression of doubts, questions, clarifications, and follow-up questions. Additionally, feedback was not possible, and some misconceptions are expected. Therefore, caution should be taken when interpreting the results. Fifth, this study asked for participants to recall their emotional states and psychiatric symptoms during their first year following immigration; therefore, reliance on recall should be taken into account because if inaccuracy occurs, it would bias the results. This approach, however, was what allowed this study to assess if migration may lead to depression and the higher correlation between immigration and depressive episode found contributes to the assumption that the sample's recall should be considered valid. Sixth, the web survey did not list possible positive immigration outcomes; therefore, even though participants were allowed to express their experiences in open-ended questions, it should be included in future studies.

**Strengths of this study.** This study has some significant strengths. First, it suggests a higher correlation between the first year of immigration and the development of depression among this specific population. Second, this study not only found a higher correlation between immigration and depression, but it also suggested a higher correlation between immigration and

the onset of depressive episodes because only 2.86% of the participants reported being diagnosed with a major depressive disorder previous to immigration, and 54.55% of participants reported never having any of those symptoms before they immigrated. Third, this is the first quantitative specific population; its results are different from other studies in because indicated that immigration is also a risk factor for the development of depression even though the immigrants are well educated, are socially and economically privileged, and have legal visa status. Fourth, the study had the minimal requested number of participants (n=51). Fifth, as stated by Engel and Schutt (2013), the utilization of a web-survey as an instrument has some unique advantages; it can elicit more honest responses, it can reach a large number of potential participants without any expense to them and in a short period of time, participants will not feel embarrassed if they decide not to take part in the survey, and they could disregard the invitation or stop answering the survey at any time. Sixth, the survey was anonymous, which increases privacy, comfort, and security. Therefore, the use of an anonymous web-survey assured reliability and validity, because it assured psychological comfort to participants, with a consequent increase in honesty of responses, and on willingness to participate.

### **Implications for Social Work**

The findings from this study have direct implications for the field of social work and health professionals because they drew attention to immigration and the possible psychological implications for immigrants. By better understanding that immigration is a risk factor for the development of distress and possible depressive episodes, health professionals can pay more attention to clinical signs of depression when evaluating or following-up on immigrants, work on prevention, and perform proper referrals and diagnosis. The risk and protective factors reported in this study can help increase not only health professionals' knowledge about the immigration

process but also immigrants' knowledge, which would help them use others' experiences to better understand and normalize their own experiences and improve their emotional state if in distress. Therefore, understanding immigration as a risk factor for the development of depression and emotional instability, combined with knowing what are the most stressful aspects of immigration and what are the protective factors for improved mental health, is important for the development of initial assessments and evaluations, treatment and intervention plans, and future therapeutic outcomes.

### **Recommendation for Future Research**

In future research, this study should be replicated with a bigger sample to improve its validity and generalization. Moreover, this specific population's mental health improvement and why this population's use of psychiatric and psychological treatment was so low should be better studied as well.

In addition, one hypothesis that should be explored in future studies is whether immigration for this specific population is a risk factor for the development of depression because of the characteristics of the population. This study suggests that although this population comes into the US with education, social and economic pre-established status, they are still viewed as immigrants and outsiders by American society, therefore, they are still susceptible to the effects of migration, racism, discrimination, and prejudice as is any other immigrant, which could have been the trigger for the development of mental illness. However, maybe once this population achieves the same or better social/economic and professional prestige that once they had in their country of origin, combined with improvement of their social/family support and assimilation of American culture, their mental health is restored. This raises the question of whether it is acculturation per se that contributes to improved mental health or if it is the

decrease of racism/prejudice that plays a role in the immigrants' mental health outcomes.

Another hypothesis that should be explored is whether the immigration paradox can be extended to this population, because although more than 74% of the participants had reported feeling emotionally different during the first year after they had immigrated, more than 23% of the participants had met the necessary criteria for a diagnosis of major depressive disorder, but the percentage of participants that sought mental health counseling was less than 5%. Moreover, the majority of the sample reported excellent (37.25%) to very good (52.94%) current emotional health, which indicates that even though they had experienced depression during the first year after immigration this mental illness is not present anymore.

In conclusion, this study's finding that immigration is a risk factor for development of depressive episodes is very important because, as the World Health Organization (2013) estimates, depression affects 350 million people worldwide, and, by 2030, it is predicted to be the leading cause of disability. Therefore, more studies exploring if immigration is a risk factor for psychiatric disorders and how immigration could impact immigrants' mental health are necessary to help mental health providers improve treatment approaches. Such awareness and treatment will provide a better quality of life for this increasing population in the US.



## References

- Alegria, M., Shrout, P., Woo, M., Guarnaccia, P., Sribney, W., Vila, D., ... Canino, G. (2007). Understanding differences in past year psychiatric disorders for Latinos living in the US. *Social Science & Medicine*, 65(2), 214-230.
- Alegria, M., Canino, G., Shrout, P. E., Woo, M., Duan, N., Vila, D., & Meng, X.. (2008). Prevalence of mental illness in immigrant and non-immigrant U.S. Latino groups. *American Journal of Psychiatry*, 165(3), 359-369.  
doi:10.1176/appi.ajp.2007.07040704
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders*. (5<sup>th</sup> ed.). Washington, DC: Author.
- Black, S. A., Markides, K. S., & Miller, T. Q. (1998). Correlates of depressive symptomatology among older community-dwelling Mexican Americans: *The Journals Of Gerontology Series B: Psychological Sciences & Social Sciences*, 53B(4), S198.
- Breslau, J., Aguilar-Gaxiola, S., Borges, G., Castilla-Puentes, R., Kendler, K., Medina-Mora, M., ... Kessler, R. (2007). Mental disorders among English-speaking Mexican immigrants to the US compared to a national sample of Mexicans. *Psychiatry Research*, 151(1-2), 115-122.
- Breslau, J., Borges, G., Saito, N., Tancredi, D., Benjet, C., Hinton, L., Medina-Mora, M. (n.d). Migration from Mexico to the United States and conduct disorder a cross-national Study. *Archives of General Psychiatry*, 68(12), 1284-1293.
- Burnam, M., Hough, R. L., Karno, M., Escobar, J. I., & Telles, C. A. (1987). Acculturation and lifetime prevalence of psychiatric disorders among Mexican Americans in Los

- Angeles. *Journal of Health & Social Behavior*, 28(1), 89-102.
- Chen, J., & Vargas-Bustamante, A. (2011). Estimating the effects of immigration status on mental health care utilizations in the United States. *Journal of Immigrant & Minority Health*, 13(4), 671-680. doi:10.1007/s10903-011-9445-x
- Cook, B., Alegría, M., Lin, J. Y., & Guo, J. (2009). Pathways and correlates connecting Latinos' mental health with exposure to the United States. *American Journal of Public Health*, 99(12), 2247-2254. Retrieved (10/09/2013) from PubMed: 19834004.
- Davidson, C. L., Babson, K. A., Bonn-Miller, M. O., Souter, T., & Vannoy, S. (2013). The impact of exercise on suicide risk: examining pathways through depression, PTSD, and sleep in an inpatient sample of veterans. *Suicide & Life-Threatening Behavior*, 43(3), 279-289.
- Eng, D. L., & Han, S. (2000). A dialogue on racial melancholia. *Psychoanalytic Dialogues*, 10(4), 667-700. doi:10.1080/10481881009348576
- Engel, R., Schutt, R. K., (2013). *The practice of research in social work*. Los Angeles, CA: Sage Publication.
- Fabrega, H. (1969). Social psychiatric aspects of acculturation and migration: a general statement. *Comprehensive Psychiatry*, 10(4), 314-326.
- Finch, B., Kolody, B., & Vega, W. A. (2000). Perceived discrimination and depression among Mexican-origin adults in California. *Journal of Health and Social Behavior*, 41(3), 295-313. doi:10.2307/2676322
- Franzini, L., Ribble, J., & Keddie, A. (2001). Understanding the Hispanic paradox. *Ethnicity & Disease*, 11(3), 496-518.
- Freud, S. (1917). Mourning and Melancholia. The Standard Edition of the Complete

Psychological Works of Sigmund Freud, Volume XIV (1914-1916): On the History of the Psycho-Analytic Movement, Papers on Metapsychology and Other Works, 237-258

Gee, G. C., Ryan, A., & Laflamme, D. J. (2006). Self-reported discrimination and mental health status among African descendants, Mexican Americans, and other Latinos in the New Hampshire REACH 2010 Initiative: The Added Dimension of Immigration. *American Journal of Public Health, 96*(10), 1821-1828.

Gerst, K., Al-Ghatrif, M., Beard, H. A., Samper-Ternent, R., & Markides, K. S. (2010). High depressive symptomatology among older community-dwelling Mexican Americans: The impact of immigration. *Aging & Mental Health, 14*(3), 347-354.  
doi:10.1080/13607860903292578.

Golding, J.M., & Burnam, M. (1990a). Immigration, stress, and depressive symptoms in a Mexican-American community. *The Journal of Nervous and Mental Disease, 178*(3), 161-171.

Golding, J. M., & Burnam, M. (1990b). Stress and social support as predictors of depressive symptoms in Mexican Americans and non-Hispanic Whites. *Journal of Social and Clinical Psychology, 9*(2), 268-287. doi:10.1521/jscp.1990.9.2.268

González, H. M., Haan, M. N., & Hinton, L. (2001). Acculturation and the prevalence of depression in older Mexican Americans: Baseline results of the Sacramento area Latino study on aging. *Journal of the American Geriatrics Society, 49*(7), 948-953.  
doi:10.1046/j.1532-5415.2001.49186.x

Grant, B. F., Stinson, F. S., Hasin, D. S., Dawson, D. A., Chou, S., & Anderson, K. (2004). Immigration and lifetime prevalence of DSM-IV psychiatric disorders among Mexican Americans and non-Hispanic Whites in the United States: results from the national

- epidemiologic survey on alcohol and related conditions. *Archives Of General Psychiatry*, 61(12), 1226-1233. doi:10.1001/archpsyc.61.12.1226.
- Grinberg, L., & Grinberg, R. (1984). A psychoanalytic study of migration: its normal and pathological aspects. *Journal of the American Psychoanalytic Association*, 32(1), 13. doi:10.1177/000306518403200103.
- Hovey, J. (2000a). Acculturative stress, depression, and suicidal ideation among Central American immigrants. *Cultural Diversity and Ethnic Minority Psychology*, 6(2), 134-151. doi:10.1037/1099-9809.6.2.134
- Hovey, J. (2000b). Psychosocial predictors of depression among Central American immigrants. *Psychological Reports*, 86, 1237–1240.
- Hovey, J. D., & King, C. A. (1996). Acculturative stress, depression, and suicidal ideation among immigrant and second-generation Latino adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, 35(9), 1183-1192. doi:10.1097/00004583-199609000-00016
- Kita, I. (2014). Physical exercise can induce brain plasticity and regulate mental function. *Advances in Exercise & Sports Physiology*, 20(1), 1-7.
- Kaplan, M. S., & Marks, G. (1990). Adverse effects of acculturation: psychological distress among Mexican American young adults. *Social Science & Medicine*, 31(12), 1313-1319. doi:10.1016/0277-9536(90)90070-9.
- Lijtmaer, R. M. (2001). Splitting and nostalgia in recent immigrants: Psychodynamic considerations. *Journal of the American Academy of Psychoanalysis*, 29(3), 427-438. doi:10.1521/jaap.29.3.427.17301
- Markides, K. S., & Coreil, J. (1986). The health of Hispanics in the southwestern United States:

- An epidemiologic paradox. *Public Health Reports*, 101, 253-265.
- Mościcki, E., Locke, B., Rae, D., & Boyd, J. (1989). Depressive symptoms among Mexican Americans: The Hispanic health and nutrition examination survey. *American Journal of Epidemiology*, 130(2), 348-360.
- Ortega, A., Rosenheck, R., Alegría, M., & Desai, R. (2000). Acculturation and the lifetime risk of psychiatric and substance use disorders among Hispanics. *The Journal of Nervous and Mental Disease*, 188(11), 728-735.
- Ornelas, I., & Perreira, K. (2011). The role of migration in the development of depressive symptoms among Latino immigrant parents in the USA. *Social Science & Medicine*, 73(8), 1169-1177. doi: 10.1016/j.soscimed.2011.07.002.
- Salgado de Snyder, V. (1987). Factors associated with acculturative stress and depressive symptomatology among married Mexican women. *Psychology of Women Quarterly*, 11(4), 475-488.
- Smith, J. C., Mercy, J. A., & Warren, C. W. (1985). Comparison of suicides among Anglos and Hispanics in five Southwestern States. *Suicide & Life-Threatening Behavior*, 15(1), 24-26. doi:10.1111/j.1943-278X.1985.tb00785.x
- Sorenson, S. B., & Golding, J. M. (1988a). Suicide ideation and attempts in Hispanics and Non-Hispanic Whites: demographic and psychiatric disorder issues. *Suicide and Life-Threatening Behavior*, 18(3), 205-18.
- Sorenson, S. B., & Golding, J. M. (1988b). Prevalence of suicide attempts in a Mexican-American population: prevention implications of immigration and cultural issues. *Suicide and Life-Threatening Behavior*, 18(4), 322-33.
- Scheewe, T., Backx, F., Takken, T., Jörg, F., van Strater, A., Kroes, A., ... Cahn, W. (2013).

- Exercise therapy improves mental and physical health in schizophrenia: A randomized controlled trial. *Acta Psychiatrica Scandinavica*, 127(6), 464-473.  
doi:10.1111/acps.12029
- U.S. Census Bureau. (2010). American's foreign born in the last 50 years. Retrieved from [http://www.census.gov/how/infographics/foreign\\_born.html](http://www.census.gov/how/infographics/foreign_born.html)
- Vega, W. A., & Sribney, W. M. (2011). Understanding the Hispanic health paradox through a multi-generation lens: A focus on behavior disorders. In G. Carlo, L. J. Crockett, & M. A. Carranza (Eds.), *Health disparities in youth and families: Research and applications* (pp. 151-168). New York, NY: Springer Science and Business Media.  
doi:10.1007/978-1-4419-7092-3\_7
- Vega, W., Warheit, G., Burl-Aut, J., & Meinhardt, K. (1984a). The prevalence of depressive symptoms among Mexican Americans and Anglos. *American Journal of Epidemiology*, 120(4), 592.
- Vega, W. A., Warheit, G. J., & Meinhardt, K. K. (1984b). Marital disruption and the prevalence of depressive symptomatology among Anglos and Mexican Americans. *Journal of Marriage and the Family*, 46(4), 817-824.
- Vega, W. A., Warheit, G., & Palacio, R. (1985). Psychiatric symptomatology among Mexican American farmworkers. *Social Science & Medicine*, 20(1), 39-45.
- Vega, W. A., Kolody, B., Valle, R., & Hough, R. (1986). Depressive symptoms and their correlates among immigrant Mexican women in the United States. *Social Science and Medicine*, 22, 645-652.
- Wipfli, B. B., Landers, D. D., Nagoshi, C. C., & Ringenbach, S. S. (2011). An examination of serotonin and psychological variables in the relationship between exercise and mental

health. *Scandinavian Journal of Medicine & Science in Sports*, 21(3), 474-481.

doi:10.1111/sltb.12014.

World Health Organization, (2012). Marcus, M., Yasamy, M. T., van Ommeren, M. Chisholm, D., and Saxena, S. Depression: A global public health concern. *WHO* Department of Mental Health and Substance Abuse. Retrieved from

[http://www.who.int/mental\\_health/management/depression/who\\_paper\\_depression\\_wfmh\\_2012](http://www.who.int/mental_health/management/depression/who_paper_depression_wfmh_2012).

World Health Organization (2012). Depression: A global crisis. World Federation for Mental Health. Retrieved from

[http://www.who.int/mental\\_health/management/depression/wfmh\\_paper\\_depression\\_wmh\\_2012.pdf](http://www.who.int/mental_health/management/depression/wfmh_paper_depression_wmh_2012.pdf)

## Appendix A

### HSR Approval



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#### School for Social Work

Smith College

Northampton, Massachusetts 01063

T (413) 585-7950 F (413) 585-7994

January 15, 2014

Lenissa Vilhena Barbosa

Dear Lenissa,

You did a very nice job on your revisions. Your project is now approved by the Human Subjects Review Committee.

*Please note the following requirements:*

**Consent Forms:** All subjects should be given a copy of the consent form.

**Maintaining Data:** You must retain all data and other documents for at least three (3) years past completion of the research activity.

*In addition, these requirements may also be applicable:*

**Amendments:** If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

**Renewal:** You are required to apply for renewal of approval every year for as long as the study is active.

**Completion:** You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

Congratulations and our best wishes on your interesting study.

Sincerely,

A handwritten signature in black ink, appearing to read 'Elaine Kersten'.

Elaine Kersten, Ed.D.

Co-Chair, Human Subjects Review Committee

CC: Claudia Bepko, Research Advisor



## Appendix B

### HSR Amendment Approval



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**School for Social Work**  
Smith College  
Northampton, Massachusetts 01063  
T (413) 585-7950 F (413) 585-7994

January 30, 2014

Lenissa Vilhena Barbosa

Dear Lenissa,

I have reviewed your amendments and they look fine. The amendments to your study are therefore approved. Thank you and best of luck with your project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Elaine Kersten'.

Elaine Kersten, Ed.D.  
Co-Chair, Human Subjects Review Committee

CC: Claudia Bepko, Research Advisor

## **Appendix C**

### Web-Survey

#### SURVEY:

Do you meet the following criteria to participate in this study? If you answer yes to all questions below, you will be directed to the inform consent and then to the survey questions. If not, I am sorry but you are not eligible to participate in this study; thank you very much for your time and desire to participate.

I am an immigrant currently living in the U.S.A.

I have an education beyond high school

I am over the age of 21

I have legal visa status

I speak fluent English

I have lived in the U.S. for at least one year.

Yes I meet all the above criteria for participation

No I do not meet these criteria for participation

### Informed Consent:

- You are being asked to participate in a research study to obtain data to verify if immigration is a risk factor for depression, and to identify what risks and protective factors will or will not affect the occurrence of depression. You are eligible to participate because you are an immigrant, above 21 years of age, with some college or other education beyond high school, who came to live in the U.S. to work, study or to follow a spouse. You have legal visa status, speak fluent English, may have experienced depression or elevated sadness during the immigration process, and have been living in the U.S. for more than one year.
- The purpose of the study is to identify whether immigration is a risk factor for depression, and to identify which are the risks and protective factors that will or will not contribute to development of depression among legal immigrants, who have had education beyond high school, during their first years living in the U.S. Once those risk and protective factors are identified, this study may increase knowledge that could help mental health professional's awareness, interventions, positive treatments, early diagnoses and outcomes. Moreover, this study is being conducted as a thesis requirement for my master's in social work degree. Ultimately, this research may be published or presented at professional conferences.
- If you agree to be in this study, and are eligible, please answer this web survey. Your informed consent to participate in this study is part of the web survey and once you have pressed I consent to participate and then in the end of the survey **DONE** your data will be collected and it will be part of this study. However, at any time during this process you have the option to not complete the web survey if you feel any discomfort or emotional distress. During the web survey you will be asked to think about your emotional state of mind prior to

immigration and after, as well as the most difficult obstacles you face, and the most helpful strategies you used to help you go through the immigration/adaptation process.

- The study has the following risks. First, you could revive past difficult feelings. Second, you could realize that you were or are depressed or that someone that you care about could be as well. Please if you do experience any of these conditions, we encourage you to stop taking the survey and contact 911; or you should contact any of the agencies or hotlines listed at the end of this informed consent. Moreover, at the end of the survey you will find a list with the US government links about depression.
- The benefits of participation are: you will be able to think about your immigration process and to assess your own process of coping with, difficulties and victories. Moreover, you may become more aware of your coping skills and engage with them if needed. You may be also able to identify risk factors and symptoms of depression in people that are close to you and help them to cope.
- The benefits to social work/society are: This research would benefit social work adding data about immigration and its psychological positive/negative consequences for immigrants' lives; therefore, this data will help to increase mental health professionals' knowledge and consequently treatment outcomes with the immigrant population. There are plenty of studies that assessed immigration and depression among socially/economically/educationally disadvantaged populations, but none that studied legal immigrants who had some form of education beyond high school.
- This study will be conducted online and is completely anonymous. Also, the survey link does not retain email addresses or ask that you give your name. Although it is important information, you may choose to disclose or no, your country of origin and race/ethnicity,

according to your level of comfort in providing this information. Online software will collect the information you provide and only my research advisor, the Smith College School for Social Work statistical analyst, and I will have access to it. We will not be collecting or retaining any information about your identity. Your participation will be kept anonymous.

- The records of this study will be kept strictly confidential. Research records will be kept in a secured (e.g.: encrypted) file, and all electronic information will be coded and secured using a password-protected file. We will not include any information in any report that could identify you. We may publish the study, but once again, no personal information that could identify you will be used.
- The data will be kept for at least three years according to Federal regulations. They may be kept longer if still needed for research. After the three years, or whenever the data are no longer being used, all data will be destroyed.
- All research materials including recordings, transcriptions, analyses and consent/assent documents will be stored in a secure location for three years according to federal regulations. In the event that materials are needed beyond this period, they will be kept secured until no longer needed, and then destroyed. All electronically stored data will be password protected during the storage period. We will not include any information in any report we may publish that would make it possible to identify you.
- You will not receive any financial payment for your participation but a list with resources will be provided in the end of this survey.
- The decision to participate in this study is entirely up to you. You may refuse to take part in the study *at any time* (up to the date noted below) without affecting your relationship with the researchers of this study or Smith College. Your decision to refuse will not result in any loss

of benefits (including access to services) to which you are otherwise entitled. You have the right not to answer any single question, as well as to withdraw completely up to the point noted below during the study. If you choose to withdraw, I will not use any of your information collected for this study. You must notify me of your decision to withdraw by email by March 1, 2014. After that date, your information will be part of the thesis, dissertation or final report.

- You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have any further questions about the study, at any time feel free to contact me, Lenissa Vilhena at [lvilhena@smith.edu](mailto:lvilhena@smith.edu). If you have any other concerns about your rights as a research participant, or if you have any problems as a result of your participation, you may contact the Chair of the Smith College School for Social Work Human Subjects Committee at (413) 585-7974.

**By checking the box below, you have decided to participate in this survey, and you have read and understood the information provided above.**

- **Once you check the box below, please continue to the next page to begin the survey.**
- **Please print a copy of this page for your records.**

**I consent to participate**

**I do not consent to participate**

Survey questions:

Demographics:

Age:

Gender:

Country of Origin (Optional):

Ethnicity:

Marital Status:

Level of Education:

Profession:

Religion:

1) How long have you been living in the USA?

A) 0 -1 year B) 1-2 years C) 2-3 years D)3-4 years E) Over 4 years

2) What were the reasons for you to immigrate to the USA? Check all that applies.

A) Work B) Study C)Family Members/Partner D)Financial Opportunities E)Political Reasons

F)Asylum G) Quality of Life H) Other:

3) When you arrived were you a fluent English speaker?

A) Yes

B) No

4) If not, when did you acquire fluency?

A) Within 1 year after arriving:

B) Within 2 years after arriving:

C) Within 3 years after arriving:

D) More than 4 years after arriving

5) Are you currently working?

A) Yes:

B) No:

6) Are you working at the same position you used to work at before immigration?

A) Yes

B) No

7) On the 7-point scale listed below, how would you rate your current emotional health?

1      2      3      4      5      6      7

Very poor condition

excellent health

8) Do you have any chronic medical condition? If yes, which one?

a) Yes:

B) No

9) If yes to above question, are you taking medications for it? Which ones?

The following questions are related to your subjective experience during your first and second year after migration, please try to answer these questions based on your past experience and feelings.

10) During the first year in the USA did you feel emotionally different from the way you used to feel before immigrating?

A) Yes

B) No

11) On the 7-point scale below, how much emotionally different did you feel?

1      2      3      4      5      6      7

Very much different

Not different at all

12) Do you remember if at least for 2 weeks in a row, you felt for most of the days any of the following symptoms? (Check all that apply).

- Depressed mood:
- Irritability:
- Anxiety:
- Feeling sad:



- Empty:
- Poor sleep:
- Difficulties to sleep or poor sleep:
- Oversleeping during the day:
- Reduced interest in all or most activities:
- Inability to have pleasure and enjoyment:
- Feelings of guilt:
- Worthlessness:
- Low self esteem:
- Hopelessness and helplessness:
- Reduced energy, feeling fatigued and always tired:
- Impaired concentration, indecisiveness:
- Reduced appetite with or without weight loss:
- Increased appetite, with or without weight gain:
- Feeling slow or restless,
- Agitation noticed by others:
- Recurrent ideas of death or suicide intents or plans:
- Had Suicide attempts:
- 
- 13) If you answered yes to question number 10, which were the three (3) most distressing symptoms you felt during the first and second year after your immigration? (Please list in order of importance and based on the symptoms list from question 12).

1.

2.

3.

14) If you answered yes to question number 10 were those feelings and thoughts severe enough to cause you significant distress or impairment in your daily activities? (e.g work, school, relationships,).

A) Yes

B) No

15) If you answered yes to question 10 do you remember if at the same time you experienced those feelings and thoughts, you were also frequently drinking alcohol or using any other substance/drugs?

A) Yes

B) No

16) If you answered yes to question 10, do you remember if at the same time you experienced those feelings and thoughts, you were also affected by any medical condition or taking any medications, vitamins or supplements?

A) Yes:

B) No:

17) If you answered yes to question 10, have you had those similar feelings/symptoms before immigration to the US?

A. Yes:

B. No:

18) Have you ever been diagnosed by a health professional with major depressive disorder (depression) before immigration to the US?

A) Yes:

B) No:

19) What do you think were the factors that contributed to you to feeling this way? (Check all that apply)

- Financial issues:
- Missing family members:
- Health issues:
- Adaptation:
- Cultural differences:
- Lack of social support:
- Missing friends:
- Language barrier:
- Occupational/professional difficulties or dissatisfaction:
- Stress:
- Housing issues:
- Racism/prejudice:
- Decreased opportunities:
- Grief/bereavement:
- Victim of physical/emotional aggression:
- Divorce, or family conflicts:
- Feeling unsafe and lost:
- Transportation issues:
- Lack of leisure time or entertainment options:

- Limited access to health care:
- Weather intolerance:
- Decision/reason to migrate
- Other:

20) What were the three (3) most negative/difficult factors? (Please list in order of importance).

- 1.
- 2.
- 3.

21) What do you believe helped your emotional distress to improve? (Please check all factors you believed help you to feel better).

- Acquiring English proficiency:
- Finding a similar job occupation:
- Had your degree validated:
- Study:
- Got married:
- Reunion with family which was had left behind during immigration:
- Increase social web/friends and support:
- Religious support:
- Meditation:
- Exercise:
- Family support:
- Psychological treatment:

- Psychiatric treatment:
- Professional satisfaction:
- Financial stability:
- Identification and/or adaptation to American culture:
- Entertainment and Leisure Opportunities:
- Secure Environment:
- Receptivity from local population:
- Others:

22) From the above, which were the three (3) most helpful factors that contributed to keeping you mentally healthy? (Please list in order of importance).

- 1.
- 2.
- 3.

Once again I would like to thank you for your participation and reassure that all your personal information as well as answers will be kept private and confidential.

### List of resources:

- 1- <http://www.nimh.nih.gov/health/topics/depression/index.shtml>.
- 2-<http://www.nimh.nih.gov/health/publications/depression/what-is-depression.shtml>
- 3-<http://www.nimh.nih.gov/health/publications/depression/what-are-the-signs-and-symptoms-of-depression.shtml>
- 4-<http://www.nimh.nih.gov/health/publications/depression/how-is-depression-diagnosed-and-treated.shtml>
- 5-<http://www.nimh.nih.gov/statistics/index.shtml>

- 6-<http://www.nimh.nih.gov/health/topics/getting-help-locate-services/index.shtml>
- 7-<http://www.nimh.nih.gov/health/topics/suicide-prevention/index.shtml>
- 8-<http://www.nimh.nih.gov/health/publications/depression/index.shtml>.
- 9-<http://www.nimh.nih.gov/health/publications/older-adults-and-depression/index.shtml>
- 10-<http://www.nimh.nih.gov/health/publications/older-adults-depression-and-suicide-facts-fact-sheet/index.shtml>
- 11-<http://www.nimh.nih.gov/health/publications/depression-in-women/index.shtml>
- 21-<http://www.nimh.nih.gov/health/publications/men-and-depression/index.shtml>
- 22-<http://www.census.gov/popest/data/national/asrh/2011/index.html>
- 23-<http://www.census.gov/popest/data/state/asrh/2011/index.html>
- 24-<http://www.census.gov/popest/data/counties/asrh/2011/index.html>

**National Suicide Prevention Lifeline:**

1-800-273-825

**Samaritans Statewide Hotline: 1-877-870-HOPE (4673)**

**The Trevor Helpline: 866-4-U-TREVOR (488-7386) - Specifically for Lesbian, Gay, Bisexual and Transgender youth and young adults**

**Massachusetts Suicide Prevention Program  
Massachusetts Department of Public Health  
250 Washington Street, 4th Floor  
Boston, MA 02108-4619  
Tel: 617-624-5438  
Fax: 617-624-5075**

**Community Mental Health Centers at Miami Dade area:**

**Jackson Memorial Hospital  
1611 Northwest 12th Avenue  
Miami, FL 33136  
Tel: 305-355-7163**

**Jackson North CMHC**  
**Adult Outpatient**  
**15055 NW 27<sup>th</sup> Avenue**  
**Opa Locka, FL 33054**  
**Tel: 786-466-2700**  
**Walk in registration- Monday - Friday from 8:00am -11:00am.**

**New Horizon's CMHC**  
**1469 NW 36 Street**  
**Miami, FL 33142**  
**Tel: 305-635-7444**  
**• Monday –Friday from 8:30-5pm.**  
**Provides accessible and culturally appropriate services to individuals and families who are encountering emotional difficulties.**

**Bayview Center for Mental Health**  
**111 NW 183<sup>RD</sup> Street Suite 500 Miami, Florida 33169**  
**Tel: 305-892-4600**  
**Our primary services include: Case Management, Crisis Services, Outpatient Services, Substance Abuse Care, Residential Programs, Housing and Pharmacy.**

**Broward Outpatient Services**  
**3501 South University drive # 6**  
**Fort Lauderdale, FL 33328**  
**Tel: 954-888-7999**  
**Provides assessment, medication management and case management Individual and group therapy.**

**Miami Behavioral Health Center**  
**3850 West Flagler Street. Miami, FL 33134**  
**Tel: 305-774-3334**

**Community Health of South Florida**  
**10300 SW 216 Street**  
**Miami, FL 33190**  
**Tel: 305-252-4838**

**Institute for Individual & Family Counseling**  
**University of Miami, Building 21-D Stanford Drive**  
**Coral Gables, FL33146**  
**Tel: 305-284-6949**

**Psychological Services Center**  
**University of Miami 5665 Ponce de Leon Blvd-2ndfloor**  
**Coral Gables, FL33146**

**Tel: 305-284-4265**

**Goodman Center (Carlos Albizu University)  
2173 NW 99th Avenue  
Miami, FL 33172  
Tel: 305-592-7860**

**Barry University  
11300 NE Second Avenue  
Miami Shores, FL 33161  
Tel: 305-899-3792**

**The Clinic services include individual, family, marital, couples, and group counseling.**

**Southeastern Community Mental Health Center  
13550 SW 88 Street #103  
Miami, FL 33186  
Tel: (305) 383-6565  
Community Mental Health Center  
7392 NW 35th Terrace suite 201  
Miami, FL 33122  
Tel: 305-597-9494**

**Phoenix Clinic Community Mental Health Center  
2710 Van Buren Street  
Hollywood, FL 33020  
Tel:(888) 830-3518**



## Appendix D

### Recruitment E-Mail

Dear Participant,

As you may already know, I am currently in my second year of my Master's in Social Work at the Smith College and I am going through my thesis process!!!!

I had decided to investigate about: **Immigration and Depression: An Exploration of Risks and Protective Factors**, and I am in the process of looking for participants for my online, and totally anonymous study.

The purpose of this study is to identify whether immigration is a risk factor for depression and to identify the triggers and protective factors that may contribute to or prevent the development of depression among immigrants, who are above 21 years of age, with some college or other education beyond high school, who came to live in the U.S. due to work, study or follow your spouses, with legal visa status, who speaks fluently English, and have been living in the U.S. for more than one year. The identification of those risk and protective factors will contribute to add data that could help mental health professionals' treatment approaches with this group.

Moreover, this research would add data that could benefit future immigrants during their immigration process and adaptation to their new life; therefore, participants will hopefully feel gratified at being a source of future help to others. Additionally, the participants may better understand the ways immigration could have affected their emotional/behavioral life as well as the importance of protective factors through this process.

Therefore, I would be really thankful if you could help me in one or both of the following ways:

First, if you are willing and meet the criteria, which are: 1) be an immigrant, 2) above 21 years of age, 3) with college education or other type of education beyond high school, 4) who came to live in the U.S. due to work, study or follow your spouses, 5) with legal visa status, 6) who speaks fluently English, and 7) have been living in the U.S. for more than one year, you can help by participating in my study answering a web survey; it will take approximately 20 minutes to be concluded. Second, you can help me thinking about who may be interested in participate and forwarding this e-mail to as many people as you know.

To those who are interested in participate: This is the web link at MonkeySurvey where you will find this research: [https://www.surveymonkey.com/s/Immigration\\_web\\_Survey](https://www.surveymonkey.com/s/Immigration_web_Survey)

Remember that if you agree to answer the survey and had pressed DONE is automatically understood that you are consenting your participation and your data will be part of this study. However, at any time during this process you have the option to not complete the web survey if you feel any discomfort or emotional distress. At the end of the survey you will find a list with some resources about depression and mental health services.

I really appreciate whatever level of support and contribution you could offer.

Please let me know if you have any questions, concerns or recommendations.

Warmly,

Lenissa

Lenissa Vilhena  
Clinical social work forthcoming professional  
Smith College School for Social Work  
[lvilhenabarbosa@smith.edu](mailto:lvilhenabarbosa@smith.edu)

## Appendix E

### Recruitment Flyer

#### Immigration and depression:

An exploration of risks and protective factors

Would you like to be part of a total anonymous web survey clinical study?

- Are you an immigrant living in the US for 1 year or more?
- Are you 21 years old or older?
- Did you migrate due to work, study or following your spouse? **If you answered yes to any one of these you are eligible to participate.**
- Do you speak fluent English?
- **Do you have some college or other type of education beyond high school?**
- **Did you experience some type of depression or elevated sadness during your immigration process?**

If you answer yes to these questions you may be eligible to participate in this clinical study. The purpose of this study is to identify whether immigration is a risk factor for depression and to identify the triggers and protective factors that will or will not contribute to development of depression. Once those risks and protective factors are identified, this study will add data that could help mental health professionals' treatment approaches and immigrants understand of their feelings and immigration process. No monetary compensation is provided for this study but a list of resources will be provided.

This study is being conducted as a thesis requirement for my master's in social work degree at Smith College School For Social Work. Please contact me if you are interested to participate and I will send you an e-mail with the web MonkeySurvey link; remember that if you agree to answer the survey and had pressed DONE is automatically understood that you are consenting your participation and your data will be part of this study. However, at any time before you press DONE you will have the option to not complete the web survey if they feel any discomfort or emotional distress. You may also give my contact information to someone you may know that might be interested as well.

Lenissa Vilhena through: [lvilhenabarbosa@smith.edu](mailto:lvilhenabarbosa@smith.edu)

I look forward to hear from you soon, thank you!

## Appendix F

### Informed Consent

#### Informed Consent:

- You are being asked to participate in a research study to obtain data to verify if immigration is a risk factor for depression, and to identify what risks and protective factors will or will not affect the occurrence of depression. You are eligible to participate because you are an immigrant, above 21 years of age, with some college or other education beyond high school, who came to live in the U.S. to work, study or to follow a spouse. You have legal visa status, speak fluent English, may have experienced depression or elevated sadness during the immigration process, and have been living in the U.S. for more than one year.
- The purpose of the study is to identify whether immigration is a risk factor for depression, and to identify which are the risks and protective factors that will or will not contribute to development of depression among legal immigrants, who have had education beyond high school, during their first years living in the U.S. Once those risk and protective factors are identified, this study may increase knowledge that could help mental health professional's awareness, interventions, positive treatments, early diagnoses and outcomes. Moreover, this study is being conducted as a thesis requirement for my master's in social work degree. Ultimately, this research may be published or presented at professional conferences.
- If you agree to be in this study, and are eligible, please answer this web survey. Your informed consent to participate in this study is part of the web survey and once you have pressed I consent to participate and then in the end of the survey **DONE** your data will be collected and it will be part of this study. However, at any time during this process you have the option to not complete the web survey if you feel any discomfort or emotional distress.

During the web survey you will be asked to think about your emotional state of mind prior to immigration and after, as well as the most difficult obstacles you face, and the most helpful strategies you used to help you go through the immigration/adaptation process.

- The study has the following risks. First, you could revive past difficult feelings. Second, you could realize that you were or are depressed or that someone that you care about could be as well. Please if you do experience any of these conditions, we encourage you to stop taking the survey and contact 911; or you should contact any of the agencies or hotlines listed at the end of this informed consent. Moreover, at the end of the survey you will find a list with the US government links about depression.
- The benefits of participation are: you will be able to think about your immigration process and to assess your own process of coping with, difficulties and victories. Moreover, you may become more aware of your coping skills and engage with them if needed. You may be also able to identify risk factors and symptoms of depression in people that are close to you and help them to cope.
- The benefits to social work/society are: This research would benefit social work adding data about immigration and its psychological positive/negative consequences for immigrants' lives; therefore, this data will help to increase mental health professionals' knowledge and consequently treatment outcomes with the immigrant population. There are plenty of studies that assessed immigration and depression among socially/economically/educationally disadvantaged populations, but none that studied legal immigrants who had some form of education beyond high school.
- This study will be conducted online and is completely anonymous. Also, the survey link does not retain email addresses or ask that you give your name. Although it is important

information, you may choose to disclose or no, your country of origin and race/ethnicity, according to your level of comfort in providing this information. Online software will collect the information you provide and only my research advisor, the Smith College School for Social Work statistical analyst, and I will have access to it. We will not be collecting or retaining any information about your identity. Your participation will be kept anonymous.

- The records of this study will be kept strictly confidential. Research records will be kept in a secured (e.g.: encrypted) file, and all electronic information will be coded and secured using a password-protected file. We will not include any information in any report that could identify you. We may publish the study, but once again, no personal information that could identify you will be used.
- The data will be kept for at least three years according to Federal regulations. They may be kept longer if still needed for research. After the three years, or whenever the data are no longer being used, all data will be destroyed.
- All research materials including recordings, transcriptions, analyses and consent/assent documents will be stored in a secure location for three years according to federal regulations. In the event that materials are needed beyond this period, they will be kept secured until no longer needed, and then destroyed. All electronically stored data will be password protected during the storage period. We will not include any information in any report we may publish that would make it possible to identify you.
- You will not receive any financial payment for your participation but a list with resources will be provided in the end of this survey.
- The decision to participate in this study is entirely up to you. You may refuse to take part in the study *at any time* (up to the date noted below) without affecting your relationship with the

researchers of this study or Smith College. Your decision to refuse will not result in any loss of benefits (including access to services) to which you are otherwise entitled. You have the right not to answer any single question, as well as to withdraw completely up to the point noted below during the study. If you choose to withdraw, I will not use any of your information collected for this study. You must notify me of your decision to withdraw by email by March 1, 2014. After that date, your information will be part of the thesis, dissertation or final report.

- You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have any further questions about the study, at any time feel free to contact me, Lenissa Vilhena at [lvilhenabarbosa@smith.edu](mailto:lvilhenabarbosa@smith.edu). If you have any other concerns about your rights as a research participant, or if you have any problems as a result of your participation, you may contact the Chair of the Smith College School for Social Work Human Subjects Committee at (413) 585-7974.

**By checking the box below, you have decided to participate in this survey, and you have read and understood the information provided above.**

- **Once you check the box below, please continue to the next page to begin the survey.**
- **Please print a copy of this page for your records.**

**I consent to participate**

**I do not consent to participate**

**Appendix G**

Research Change of Protocol

**RESEARCH PROJECT CHANGE OF PROTOCOL FORM**

You are presently the researcher on the following *approved* research project by the Human Subjects Committee (HSR) of Smith College School for Social Work:

**..... Immigration and depression: An Exploration of risks and protective factors. LENISSA VILHENA BARBOSA / CLAUDIA BEPKO.....**

I am requesting changes to the study protocols, as they were originally approved by the HSR Committee of Smith College School for Social Work. These changes are as follows:

- 1- The number of interactions with participants ( 1 e-mail and/or Flyer)
- 2- Inclusion of one new screening question into the web survey. (Do you meet the following criteria to participate in this study? If you answer yes to all questions below, you will be directed to the inform consent and then to the survey questions. If not, I am sorry but you are not eligible to participate in this study; thank you very much for your time and desire to participate)
- 3- Withdrawal of one inclusion criteria (have experienced depression or elevated sadness during the immigration process)

[DESCRIBE ALL PROTOCOL CHANGES BEING PROPOSED IN NUMERIC SEQUENCE; BE BRIEF AND SPECIFIC]

- 1) I would like to change how many times I will meet/interact with participants. Instead of 2, **there will be in total 1 recruitment e-mail and or flyer, which will include the study topic, purpose, methodology, criteria of inclusion, and the MonkeySurvey link.** I do believe that avoiding participants’ having to send me an e-mail to confirm their willingness to participate will increase their anonymity and comfort in responding to the survey.
- 2) **This question below will be included into the web survey** to assure that participants fulfill all inclusion criteria. This question will come after the informed consent in the web survey and only those who answered yes to all screening questions will be directed to the survey questions.

**Question: Do you meet the following criteria to participate in this study? If you answer yes to all questions below, you will be directed to the inform consent and then to the survey questions. If not, I am sorry but you are not eligible to participate in this study; thank you very much for your time and desire to participate.**



**I am an immigrant currently living in the U.S.A.**  
**I have an education beyond high school**  
**I am over the age of 21**  
**I have legal visa status**  
**I speak fluent English**  
**I have lived in the U.S. for at least one year.**

**Yes I meet all the above criteria for participation**  
**No I do not meet these criteria for participation**

- 3) The purpose of this study is to identify whether immigration is a risk factor for depression and to identify the triggers and protective factors that may contribute to or prevent the onset of depression. Therefore, the inclusion criterion that requires people have had depression actually undermines the whole point of the research. This study is trying to find out IF immigration could cause depression and wants to know how many get depressed, how many do not, and what the differences are between those who do and those who don't.

.....

I understand that these proposed changes in protocol will be reviewed by the Committee.  
 I also understand that any proposed changes in protocol being requested in this form cannot be implemented until they have been fully approved by the HSR Committee.  
 I have discussed these changes with my Research Advisor and he/she has approved them.

Your signature below indicates that you have read and understood the information provided above.

**Signature of Researcher:**     Lenissa Vilhena  
**Barbosa**\_\_\_\_\_

**Name of Researcher (PLEASE PRINT):**     Lenissa Vilhena  
**Barbosa**\_\_\_\_\_ **Date:**   01/30/2014  

PLEASE RETURN THIS SIGNED & COMPLETED FORM TO Laura Wyman at [LWyman@smith.edu](mailto:LWyman@smith.edu) or to Lilly Hall Room 115. Also please send a copy or cc you Research Advisor.

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